JIMMA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

DEPARTMENT OF INFORMATION SCIENCE

Assessment of the Status of Knowledge Sharing Practices, Barriers and Opportunities in Jimma City Administration, Ethiopia

By Fati Jemal

A Thesis Submitted to the School of Graduate Studies of Jimma University in Partial Fulfillment of the Requirements for the Degree of Master of Science in Information and Knowledge Management

Advisors:

WorkuJimma (Ph.D Candidate)

Minyichel Belay (M.Sc)

October, 2017

Jimma, Ethiopia

JIMMA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

DEPARTMENT OF INFORMATION SCIENCE

Assessment of the Status of Knowledge Sharing Practices, Barriers and Opportunities in Jimma City Administration, Ethiopia

By Fati Jemal Ali

A Thesis Submitted to the School of Graduate Studies of Jimma University in Partial Fulfillment of the Requirements for the Degree of Master of Science in Information and Knowledge Management

Name and signature of Members of the Examining Committee

Name	Title	Signature
WorkuJimma (PhD Candidate) ,	Advisor,	_____
Million Meshesha (PhD),	External Examiner,	_____
ElsabetWedajo (MSc),	Internal Examiner,	_____

ACKNOWLEDGEMENT

I would like to express my deepest gratitude to my major advisor Mr. Worku Jimma Hora (PhD Candidate) for his unconditional love, encouragement and indispensable help during the whole course of my study including guidance and constructive comments in the preparation of this thesis.

I am also very much grateful to Mr. Minyichel Belay, my co-advisor, for his unconditional love, tremendous support, understanding and guidance on my research. I also take the opportunity to thank all the academic staff of Information Science Department of Jimma University for their support for my academic development and completion of my study.

Next, I would like to extend my gratitude to my friends, Reshad Kemal, Abdella Mohammed, Kassim Fite, Seman Abagojam, Masho Biya, Hussein Abalulessa, Hussein Mustefa, Yahya Ahmed, Gali Ababor, Melaku Mamo, Abduletif Mohammed, Yasin Abdella, Reshad Ababiya, Bilisumma Wakuma, Mohammed Abdu, Negussie Abajebel, Jemal Mohammed, Kadi Kedir, Mohammed Hussein, Mohammed Temam, and Sultan Zakir for their support motivation and encouragement.

I also would like to thank my previous and current workmates, Mr. Bedada Merga, Mr. Kagnew Tesemma, Mr. Mohammed Nasir, Mr. Yezid Jemal and other colleagues whose names are not mentioned. I am also indebted to those individuals (staff and managers) who participated in the survey.

Last but not least, my heartfelt thanks also extend to my family. My wife, Obse Reshad, for her encouragement to push the work forwards. My son Nahil and my daughter Lina also deserve my deepest thanks for their patience over the period of my study.

Table of Contents

List of Tables

List of Figures

Acronyms

AGIMO - Australian Government Information Management Office

ALGP -African Local Governance Program

BPR – Business Process Reengineering

CSA – Central Statistics Agency

CSR – Civil Service Reform

FDRE – Federal Democratic Republic of Ethiopia

HR – Human Resource

HRD – Human Resource Development

ICT – Information Communication Technology

i.e. - That is

IT – Information Technology

JCA – Jimma City Administration

KM – Knowledge Management

KS – Knowledge Sharing

KSP – Knowledge Sharing Practices

n.d – no date

NPM – New Public Management

OECD-Organization for Economic Cooperation and Development

SPSS - Statistical Package for Social Sciences

UNEGOV - United Nations E-Government

UNPAN - United Nations Public Administration Network

Abstract

Knowledge is a critical organizational resource in public administrations. In order to function effectively and satisfy the citizens' ever increasing demand for better services and products, governments should strengthen institutional capacity by making use of available knowledge and striving to create new knowledge to provide efficient services, make fair decision and for solving societal problems at large. Knowledge sharing, which is one of the most important processes of knowledge management is a central feature of the functioning of government. In the absence of effective knowledge sharing, government organizations may fail to integrate critical knowledge, skills, experiences and abilities of employees to accomplish their mission and vision. Therefore, the main aim of this study was to assess the current knowledge sharing practices, barriers and opportunities of Jimma City Administration, Ethiopia in light of organizational contexts such as organizational culture, organizational structure and ICT infrastructure and use. To this end, the study employed cross-sectional survey design. The necessary data were collected using questionnaire from randomly selected 104 middle managers from the city administration and analyzed using descriptive statistics with SPSS 20. In addition, data from interviews of key informants, direct observation and documentary sources were analyzed qualitatively so as to supplement the information drawn from questionnaire data. The findings of data analysis showed that currently the practice of knowledge sharing in the City Administration is mainly through employees interaction and staff meetings , the organizational culture is not conducive for knowledge sharing, inadequate IT availability and use. The major barriers identified include low awareness, recognition& value for knowledge as a key resource, poor information management, inadequate clarity, communication & internalization of organizational vision and mission andlack of transparent promotion, recognition& incentive systems. The opportunities identified that can possibly serve as fertile ground for knowledge sharing include the presence of better qualified personnel, the various civil service reform tools under implementation and flat formal structure with small unit. Finally, among the recommendations were to design and adopt comprehensive KS policy & strategy that incorporate a wide range of knowledge sharing practices, linking knowledge to organizational vision & objectives, training and establishing knowledge management posts and designating personnel in charge of them.

CHAPTER ONE

1.0 Introduction

1.1 Background

Knowledge is information processed by individuals including ideas, facts, expertise, and judgments relevant for individual, team, and organizational performance (Alavi and Leidner, 2001; Bartol and Srivastava, 2002; Wang and Noe, 2010). Davenport and Prusak (2005) defined knowledge management (KM) as the processes which support knowledge collection, sharing and utilization.

Knowledge Sharing (KS) refers to the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures (Cummings, 2004; Wang and Noe, 2010). In organizational setting, knowledge sharing generally refers to the act of encouraging open and inclusive sharing of expertise and experiences among staff members and partners to support learning and change, with a view to improving the effectiveness and impact of our work. Moreover, according to Bock and Kim (2002) and Kim and Lee (2005), knowledge sharing is believed to be one of the most important processes for knowledge management (KM).

For an organization, the sharing of knowledge among its employees promises many benefits: it allows the organization to build on past experience and knowledge thereby avoiding reinventing the wheel or repeating past mistakes, respond more quickly to problems, develop new ideas and insights (Cyr and Choo, 2010).

Public administration institutions work with immense amount of information that is being used or created every day. There is also large amount of knowledge embedded in the bureaucracy and civil servants, so the need to manage knowledge in an effective way is imperative (UNPAN, 2008).As emphasized by Wiig (2002) and Misra (2007) the activities of public organizations are more knowledge-intensive and unless the knowledge is properly managed, the organizations do not function properly. Governments are increasingly being required to determine, define and forecast the needs of their citizens as clients and to develop, modify and adjust services to match

these needs. Knowledge management is, therefore, believed to increase productivity, improve accountability, enhance transparency and facilitate public sector reforms (Mbhalati, 2014).

Furthermore, public service organizations are subject to pressures for learning and innovation which derive from citizens' expectations, other tiers of government and a wide range of stakeholders (Rashman, Withers and Hartley, 2009). In addition, governments are under continual pressure from the society to increase their effectiveness and service quality with fewer resources (McAdam and Reid, 2000). The transparency, integrity and accountability of public service delivery are important current issues need to be highlighted by the public sector organizations of our country as the public demand for better services and fair decisions is increasing from time to time. In this regard knowledge is believed to be a central resource of government service for providing excellent government services; simultaneously demonstrating greater accountability and transparency in the process. Working within the context of knowledge management can provide solutions to these problems. However, effective KS among employees is a significant public management challenge (Kim and Lee, 2005).

Although KM has been extensively discussed by many academicians and practitioners, a very few studies are done on the knowledge processes in the public sector (Cong and Pandya, 2003; Syed-Ikhsan and Rowland, 2004; Taylor and Wright, 2004), and even less in the developing countries' context (Syed-Ikhsan and Rowland, 2004). In Ethiopia, indeed, it is enshrined in the country's Constitution article 89(1), stated as, "Government shall have the duty to formulate policies which ensure that all Ethiopians can benefit from the country's legacy of intellectual and material resources" (FDRE Constitution, 1995). Despite this article of the Constitution, which signifies the place of knowledge in the society and the responsibility of government at all levels (federal, state and local levels), in Ethiopia knowledge management is at its infant stage and knowledge sharing is often person-to-person focusing on questions of day-to-day work rather than in coordinated and strategic way (Ayalew, 2014; Mekonnen, Sehai & Hoekstra, 2012). In the context of local governance and public sector reforms in Ethiopia, as decentralization initiatives that placed more administrative control in the hands of local governments is relatively recent phenomena, knowledge sharing is very important in light of institutionalizing the reform initiatives and thus to improve service delivery and governance.

In public sectors many people see knowledge as power (Misra, 2007). Therefore, organizations should try to overcome this deep-seated concern by devising strategies that facilitate and

encourage employees to share their knowledge. Moreover, knowledge and information processes in organizations are closely linked to structures, processes and the culture in the organizations in which they take place (Cruywagen, Swartand and Gevers, 2008).

Therefore, this study was initiated with the main aim to assess the current knowledge sharing practices, barriers and opportunities of Jimma City Administration of Oromia National Regional State, Ethiopia.

.

1.2 Statement of the Problem

Today, knowledge is generally one of the main assets of organizations, whether private or public. Public administration institutions work with huge amount of data and/or information that is being used or created every day, there is also large amount of knowledge (tacit and explicit) embedded in the civil servants and the bureaucracy. As emphasized by Wiig (2002) andMisra (2007), the activities of public organizations are more knowledge-intensive and unless the knowledge is properly managed, the organizations are led, most likely, to reinventing the wheel, loss of knowledge, knowledge hoarding, poor decisions and inability to learn so that they barely function. Knowledge management is believed to increase productivity, improve accountability, enhance transparency and facilitate public sector reforms (Mbhalati, 2014). Especially in today's knowledge economy, managing knowledge as precious resource should be imperative for governments (UNPAN, 2008).

Knowledge Management is the effort to systematically find, organize and make available an organization's intellectual capital to foster a culture of continuous learning and knowledge sharing so as to build organizational activities on what is already known (Cyr and Choo, 2010, Evans, 2012). Knowledge sharing is, therefore, one of the most important processes for KM (Bock & Kim, 2002, Kim and Lee, 2005). Indeed, knowledge sharing which is at the heart of the concept of knowledge management is devoted to make existing knowledge accessible and usable which also contributes to create new knowledge in organizations (Ho and Madden-Hallett, 2011). 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 (Kim and Lee, 2005).

However, in Ethiopia, knowledge management is at its infant stage and knowledge sharing is often person-to-person focusing on questions of day-to-day work lest in coordinated and strategic way (Ayalew, 2014, Mekonnen, Sehai& Hoekstra, 2012). Among factors that contribute to low performance of Ethiopian public sectors and their poor service delivery, lack of knowledge management and therefore low level of knowledge/information sharing in the civil service has been identified as prime constraint (Costantinos, 2014). An internal report by Jimma City Administration also reveals that the civil service reform(CSR) initiatives that envisaged to improve service delivery and policy implementation capacity of the city's public sectors could not meet the desired goal (JCA, 2016). According to this report, the main bottlenecks that constrain the implementation of the civil service reform (CSR) attribute mainly to inadequate change management, attitude of the staff and the frequent turnover of the leadership and focal persons in charge of the reform (JCA, 2016). The bottlenecks listed in the report, constraining the civil service reform initiatives clearly indicate the existence of problems of knowledge sharingin the City Administration.

Furthermore, despite the fact that knowledge management in business organizations has been widely discussed by many researchers, there is relatively little information and empirical studies on knowledge sharing initiatives on government agencies in general (Komanyane, 2010) and even very little on local public sectors of Ethiopia in particular.

Therefore, these situations necessitated this study with the aim of assessing the current status of knowledge sharing practices, barriers and opportunities focusing on essential organizational factors.

1.3 Research Questions

1) What is the current status of knowledge sharing practices in Jimma City Administration public service?

2) What is the prevailing organizational culture in relation to information/knowledge management and learning?

3) How do the existing organizational structures perceived by the respondents with respect to knowledge generation and sharing?

4) What is the level of ICT usage in the City Administration?

5) What are the barriers hindering knowledge sharing activities?

6) What opportunities are be seized to improve knowledge sharing?

1.4 Objectives of the Study

1.4.1. General Objective

The general objective of this research is to assess the current status of knowledge sharing practices in public sectors of Jimma City Administration, identify main challenges that hinder effective knowledge sharing and also the opportunities to be seized.

1.4.2. Specific Objectives

1) To identify the existing knowledge sharing practices in the organizations;
2) To explore the features of the organizational culture in relation to knowledge management;
3) To assess organizational structure of public organizations in light of knowledge management;
4) To examine the availability usageof ICT in the public sectors;
5) To identify barriers of knowledge sharing in the organizations of the local government;
6) To identify opportunities for knowledge sharing in the public organizations;

1.5 Scope and Limitation of the Study

The study is concerned with issues and variables related to knowledge sharing at organizational level, rather than factors of individual level, as there is emerging interest concerning organizational interventions that may help to encourage knowledge sharing among the employees. In addition, the study population is limited mainly to employees at middle and top management level and the results show the state of affairs when the study is carried out. Furthermore, this study does not include public offices of the local government that are below the level of city administration (i.e. the *kebele* administrations).

When conducting the study some limitations that may reduce the robustness of the result of the study were encountered. Among these limitations are resource and time constraints in addition to unfamiliarity of the civil service system with the concept of KM and lack of previous works in the context of Ethiopian public sectors in general and that of the study area in particular.

Operational Definitions

Data- is a raw fact such as numbers, word or letters without any context (or meaning) (Tiwana, 2002).

Explicit knowledge-is formal and systematic knowledge such as, instruction manuals, policy documents, best practices; lessons learned and research findings (Cong and Pandya, 2003).

Information- is the collection of data with understandable relationship between them, but with little implication for the future (Tiwana, 2002).

Knowledge–is a mix of information, ideas, experiences, and capabilities relevant in work tasks performed by individuals, groups, work units, and the organization as a whole (Wang and Noe, 2010).

Knowledge management (KM) – broad collection of organizational practices related to generating, capturing and promoting knowledge sharing within an organization. These include organizational changes, personnel development, technological innovation, and transfer of competencies and incentives for staff to share knowledge (OECD, 2003).

Knowledge sharing (KS)– refers to the provision of task information, experiences and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures (Cummings, 2004).

Knowledge sharing practices (KSP)- are the formal or informal routines or day-to-day operation used in an organization for the provision of task information, experiences and skills to help others and to collaborate with others to solve problems, develop new ideas, or implement policies and procedures.

Organization-refers to a set of social relations deliberately created, with the explicit intention of continuously accomplishing some specific goals or purpose

Tacit knowledge–is the knowledge residing in the heads of individual that is not organized, which is hard to formalize, and is rooted in action, procedures, commitment, values and emotions (Cong and Pandya, 2003).

Practices-Practices are the formal or informal routines used in the organization to accomplish work (DE Long, 1997).

Public sector – Public sector organizations are those government departments at national, state or local level operated by government to provide some form of public service. It also includes government-owned corporations.

Jimma City Administration- is an urban local government entity formed by legislature of The Oromia National Regional State of Ethiopia.

1.6 Significance of the Study

Today, knowledge is generally one of the main assets of organizations, whether it is private or public, because it improves decision making and organizational actions. As the activities of public organizations are more knowledge-intensive, knowledge sharing practices are a central feature for better service delivery and functioning of a government.

However, in our country, Ethiopia, knowledge management practices are at infant stage and knowledge sharing is often person-to-person and focuses on questions of day-to-day work rather than in coordinated and strategic way (Ayalew, 2014, Mekonnen, Sehai& Hoekstra, 2012). By studying knowledge sharing practices and constraints at local government level, this research could be able to contribute to practical implications for managers in terms of an increased understanding of KM and the need to devise strategies for improved KS by alleviating the identified barriers.

In addition to this, despite the fact that knowledge management has been widely discussed by many researchers, there is relatively little information and empirical studies on knowledge sharing initiatives in the government agencies in Ethiopia in general and on local public sectors in particular to the knowledge of the researcher.

Therefore, this study which aims to assess the status of knowledge sharing practices, barriers as well as the opportunities in local public sectors of Jimma City Administration can provoke ideas and debates on issues of knowledge sharing in public sectors of Ethiopia so as to serve as an input for those interested to make further explanatory research on similar issues. In addition to this, the results of this study can be used to inform policy-makers and practitioners of the public sectors in the study area on the need for effective management and sharing of knowledge in the public sectors.

1.7 Organization of the Thesis

The thesis is organized into five chapters. The first gives introduction, background, problem statement, objectives, research questions, significance of the study, and scope of the study. The second chapter present review of relevant literature. Chapter three deal with research methodology. In this chapter, research design, sample frame, sample size, data collection techniques, source of data, and data analysis technique are dealt in detail. Chapter four gives data analysis and study findings and discussions. The last chapter winds up the report with conclusions and recommendations.

CHAPTER TWO

2.0 Literature Review

The purpose of this literature review is to understand the concepts related to knowledge, knowledge management and knowledge sharing that are central to this research.

2.1 An Overview of Knowledge

There is no universal definition for knowledge. Definition of knowledge varies depending on specific contexts. For long time philosophers have debated on the meaning of knowledge, resulting in a whole branch of philosophy known as epistemology being devoted solely to its study. Different scholars have attempted to define the term *knowledge.* Since the time of Plato and Aristotle, philosophers have attempted to explain its place in society. For example,

- Plato first defined the concept of knowledge as justified true belief (cited in Zhang, 2008).
- Knowledge is organized information applicable to problem solving (Kakabadse, Kakabadse and Kouzmin, 2001).
- Knowledge is information that has been organized and analyzed to make it understandable and applicable to problem solving or decision making (Smith, 2001)
- Knowledge consists of truths and beliefs, perspectives and concepts, judgments and expectations, methodologies and 'know-how' (Wiig, 2002).

Philosophically, in general, knowledge falls into two schools of thought, namely - rationalism and empiricism. Rationalism supports that knowledge is a justified true belief, while empiricism argues that knowledge is created on an ongoing basis from experience (Zhang, 2008).

Here is the definition of knowledge suggested by Thomas Davenport and Laurence Prusak *(*1998*)*.

> *"Knowledge is a fluid mix of framed experience, values, contextual information, expert insight and grounded intuition that provides an environment and framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in*

documents or repositories but also in organizational routines, processes, practices and norms."

According to Nonaka and Takeuchi (cited in Tsoukas and Vladimirou, 2001), knowledge consists of three components:

First, knowledge, unlike information, is about *beliefs* and *commitment*. Knowledge is a function of a particular stance, perspective, or intention.

Second, knowledge, unlike information, is about *action*. It is always associated 'to some end'.

Third, knowledge, like information, is about *meaning*. It is context-specific, and relational. (cited in Kern, 2012)

With their view of knowledge as a "justified true belief", Nonaka and Takeuchi introduced a dynamic aspect: "*We consider knowledge as dynamic human process of justifying personal belief toward the 'truth'.*"(as cited in Kern, 2012).

Knowledge is considered as a flow of information tied to a person's beliefs and commitment and therefore related to human action. Knowledge and information are, although sometimes used interchangeably, they are two different concepts (Wang & Noe, 2010). Furthermore, Davenport and Prusak (1998) acknowledge that knowledge is more valuable than data or information because it makes action possible. Therefore, knowledge can be used, for example, to make wiser decisions about actions needed to attain goals for an individual or an organization.

Although it is difficult to find generally applicable definition of knowledge, further understanding of the concept of *knowledge* can be built with its relationship to the concepts *data* and *information*. This way of defining Knowledge is called Knowledge Hierarchy or Knowledge Pyramid.

2.1.1 The Knowledge Hierarchy

Although the terms data, information and knowledge are related, they are not equal.

Data is a raw fact such as number or word or letter without any context (or meaning). For example, interest, principal, and interest rate, out of context, are not much more than data as each has multiple meanings which are context dependent.

Information is the collection of data with understandable relationship between them, but with little implication for the future. That is it is static. For example, if one establishes a bank savings

account as the basis for context, then interest, principal, and interest rate become meaningful in that context with specific interpretations.

Knowledge is a collection of data and information with understandable patterns that have implications for the future.

There has been a great deal of debate in the literature about the meaning of the term "knowledge". Most of the debate revolves around the differences between the terms 'information' and 'knowledge'. Even though in some instances they may have been used interchangeably, many have suggested that the two concepts are distinctly different (Jarrar, Zairi & Schiuma, 2010). It is frequently suggested that information is a component part, but not the whole of knowledge. Knowledge is a much more all encompassing term which incorporates the concept of beliefs that are based on information (Jarrar, Zairi& Schiuma, 2010). Besides, information can be regarded as a message with somebody sending it and someone to receive it, and only if the receiver finds that the data in the information carries value; whereas, knowledge on the other hand, is a combination of instincts, ideas, rules and procedures that guide one's actions and decisions. (Davenport & Prusak, 1998)

The knowledge hierarchy depicts the conventional concept of knowledge transformations, where data is transformed into information, and information is transformed into knowledge. However, many researchers use the terms knowledge and information interchangeably, emphasizing that there is not much practical utility in distinguishing knowledge from information especially in knowledge sharing research (Wang & Noe, 2010). In this research, we adopt this perspective by considering knowledge as information processed by individuals including ideas, facts, expertise, and judgments relevant for individual, team, and organizational performance.

Knowledge exists in different locations: in people's mind, in organizational processes, embedded into different artifacts, procedures and stored into different media such as print and electronic media (Mabudafhasi, 2002),

2.1.2 Types of Knowledge

Knowledge can be classified in to various categories based on different viewpoints.

2.1.2.1 Explicit versus Tacit Knowledge

Among the many ways in which knowledge can be categorized, perhaps the most widely accepted knowledge taxonomy among researchers and practitioners is the differentiation between

explicit knowledge from tacit knowledge, which was first introduced by Polanyi and popularized by Nonaka and H. Takeuchi (Al-Qdah and Salim, 2014).

Explicit knowledge exists in the form of words, sentences, documents, organized data, computer programs and in other explicit forms. These include knowledge assets such as reports, memos, business plans, drawings, patents, trademarks, customer lists, methodologies, and the like (Tiwana, 2002). This type of knowledge includes instruction manuals, written procedures, best practices, lessons learned, research findings and policy documents. It is simpler to document and share and easier to replicate.. They represent an accumulation of an organization's experience kept in a form that can readily be accessed by interested parties and replicated if desired.

In contrast to explicit knowledge, tacit knowledge is defined as knowledge that is personal, intangible and embedded in the cognitive minds of people and is obtained through learning and experience. Tacit knowledge is personal and hard to formalize, and is rooted in action, procedures, commitment, values and emotions (Cong and Pandya, 2003). Tacit knowledge is the less familiar, unconventional form of knowledge. It is the knowledge of which, we are not conscious. Tacit knowledge cannot be codified and is not communicated in a language but it is acquired by sharing experiences, by observation and imitation.

Polanyi (cited in Tiwana, 2002) has referred to tacit knowledge as something that we do unconsciously, and most of the time we are not aware of its existence such as, how to ride bicycle. Such knowledge is difficult to write or to be codified, and difficult to transfer. He has explained, the individuals can know more than they can tell. Additionally, tacit knowledge is more difficult to transfer than explicit knowledge, because explicit knowledge is theory-based and transmitted in formal, systematic language. The tacit knowledge is intuitive, contextual, linked to experience, past memories and difficult to codify, document and communicate. Tacit knowledge is by some authors considered more valuable and wanted because it provides and contains context, places, ideas, and experiences for the employees. It is estimated that this tacit knowledge constitutes between 70 and 80% of all knowledge in an organization and is difficult to identify, quantify, and convert into real value, unless a structured approach is adopted to manage knowledge (Bhattacharya and Chaudhury, 2004).

The following table 2.1 summarizes the characteristics of explicit and tacit knowledge.

Types of Knowledge	**Explicit knowledge**	**Tacit knowledge**
Characteristics	-Easily captured and codified -Well documented -Easily communicated and shared. -Formal and systematic -Accessible	Highly personal -Non verbalized and Unspoken knowledge -Difficult to capture and share -Intuitive and unarticulated -Topic specific
Sources	-Instruction manuals -Written procedures and books -Data bases and reports -Research findings -Best practices	-Informal face to face meetings and discussions -Personal experiences -Telephone conversations -Emails

Table 2.1: Characteristics and Sources of Explicit and Tacit Knowledge

Sources: (Bhatt 2001, Cong and Pandya, 2003)

However, explicit knowledge and tacit knowledge are not mutually exclusive. i.e., the two types of knowledge are mutually complementary, so that without tacit knowledge it will be difficult, if not impossible, to understand explicit knowledge and vice-versa.

Knowledge can change from tacit to explicit and vice versa through the knowledge spiral which is a basis for knowledge creation and sharing. Nonaka (1995) suggests conversion mechanisms, called a knowledge spiral, to deal with the tacit and explicit knowledge in the organization (This is discussed under section 2.2.2 below).

2.1.2.2 Individual versus Organizational Knowledge

Citing Lam (2000), Nor and Egbu (2010) define individual knowledge as "that part of an organization's knowledge which resides in the brains and bodily skills of the individual". It involves all the knowledge possessed by the individual that can be applied independently to specific types of tasks and problems (Nor and Egbu, 2010). They also added that individuals have cognitive limits in terms of storing and processing information and so that individual knowledge tends to be specialized and domain specific in nature. The individual knowledge held by employees, either explicit or tacit, can add value to the product, customer and in turn the organization (Ipe, 2003). The individual knowledge is one source of organizational knowledge.

Organizational knowledge is shared knowledge that individuals come to understand, interpret, and apply in a particular organizational context (Bhatt, 2002). Knowledge Management (KM) practices are observable actions that range from broad, organizational strategies to more individualized practices or behaviors; they are organizational actions that aim at the development of an infrastructure that is dedicated to the management of organizational knowledge and includes a range of procedures, routines, work habits, and tools in operation (Bhatt, 2002). From the perspective of an employee, organizational knowledge is the knowledge that remains in the organization even if employees quit.

Knowledge is one of an organization's key resources influencing its intelligence, decision making, forecasting, designing, planning, diagnosing, analyzing, evaluating and having an effective intuitive judgment (Tiwana, 2002).

Based on the above discussion, in this study knowledge is considered as a mix of information, ideas, experiences, and capabilities relevant in work tasks performed by individuals, groups, work units, and the organization as a whole.

According to Wang & Noe (2010).organizational knowledge can be addressed in three different ways:

- Knowledge as an "object" – such as a knowledge base or corpus
- Knowledge as a "process" – as in a social network or business process (including a set of dynamic skills that are constantly changing)

- Knowledge as a complex "self-organizing system" – such as a culture or learning organization.

In general, an important distinction between organizational knowledge and individual knowledge is that individual knowledge is held by an individual, while organizational knowledge pertains to the body of collective knowledge held by an organization (Bhatt, 2002).

2.2 Knowledge Management

Like knowledge, knowledge management (KM) is defined in different ways. There is wealth of definitions of knowledge management in literatures including:

The management of the information, knowledge and experience available to an organization including creation, capture, storage, availability and utilization of knowledge in order that organizational activities build on what is already known (Institute of Public Administration, 2005).

Davenport & Prusak (1998) described knowledge management as a process of acquiring, sharing, and utilizing knowledge. Some viewed it as a process which includes creating, sharing, capturing, acquiring, and using knowledge with a goal of increasing organizational performance through learning.

OECD (2003)defines knowledge management as "broad collection of organizational practices related to generating, capturing, and disseminating know-how and promoting knowledge sharing within an organization, and with the outside world which include organizational changes, personnel development, technological innovation, and transfer of competencies and incentives for staff to share knowledge".

KM could also be defined as the effort to systematically find, organize and make available an organization's intellectual capital and to foster a culture of continuous learning and knowledge sharing so that organizational activities build on what is already known (Evans, 2012).

Hislop (2013) defines KM as "an umbrella term which refers to any deliberate efforts to manage the knowledge of an organization's workforce, which can be achieved via a wide range of methods including directly, through the use of particular types of ICT, or more indirectly through the management of social processes, the structuring of organization in particular ways or via the use of particular culture and people management practices".

Hackett (2002) defines KM as "Knowledge management is an integrated, systematic approach to identifying, managing, and sharing all of an enterprise's information assets, including databases, documents, policies, and procedures, as well as previously unarticulated expertise and experience held by individual workers. Fundamentally, it is about making the collective information and experience of an enterprise available to the individual knowledge worker, who is responsible for using it wisely and for replenishing the stock."

Dalkir (2005) on his part defines Knowledge management as "deliberate and systematic coordination of an organization's people, technology, processes, and organizational structure in order to add value through reuse and innovation. This coordination is achieved through creating, sharing, and applying knowledge as well as through feeding the valuable lessons learned and best practices into corporate memory in order to foster continued organizational learning."

Therefore, it is possible to see from most of the above definitions, KM emphasize systematic processes involved and the activities that go to make up knowledge management.

2.2.1 KM Processes

While there is argument as to whether knowledge itself is a process, an object, a cognitive state etc., knowledge management mostly considered as a process (Alavi and Leidner, 1999). However, inconsistency was observed in the literature with regard to the explanation of the knowledge management processes. Consequently, many researchers have proposed models for the knowledge management process. Serrat (2008) notes that there are five basic activities of knowledge management processes: identify, create, store, share and use knowledge. Gold (2001) on his part grouped KM process into four broad dimensions of process capability – acquiring knowledge, converting it into useful form, applying or using it, and protecting it. According to Alavi and Leidner (2001) and Smith (2001), KM has the following processes:

2.2.1.1 Knowledge creation

Knowledge creation refers to the development of new knowledge from data, information or prior knowledge. Creating new knowledge is treated as continued organizational learning which was formed by teams of employees and combined efforts emanating from these teams (Nonaka, 1995). The conversion between explicit and tacit knowledge through socialization, externalization, combination, and internalization are important mechanisms

through which knowledge is created in organizations (Nonaka and Takeuchi 1995). Interpersonal interactions and relationships are instrumental in generating the openness, critical thinking, and awareness of past experiences necessary for knowledge creation.

*2.2.1.2*Knowledge *Capture*

Knowledge capture involves the collection, organization, and storage of knowledge for future retrieval. Explicit knowledge may be captured in electronic knowledge repositories and document management systems, while tacit and less codifiable knowledge to be distributed among employees, it can be mapped using expert directories that connect knowledge seekers to experienced employees. Knowledge can also be captured from external sources, such as public forums and social networking websites.

2.2.1.3 Knowledge sharing

Knowledge sharing is concerned with the flow of knowledge among employees. It is the process by which explicit or tacit knowledge can flow between individuals, groups, within and between departments, or organizations (Yang, C., & Chen, L.C., 2007). According to Hansen (1999), there are two different knowledge management and sharing strategies. They are personalization and codification.

Personalization can be used to distribute tacit knowledge to create unique solutions for issues that need contextualized solutions. This can be performed by facilitating communication among individuals who are directed by questions regarding to the type of solution required and who are conscious about it. This can lead to an increased frequency and improved quality of communication and by its personal character, requires only minimal investment (Hansen et al., 1999).

Codification of knowledge achieved through everyday troubleshooting, organizing and labeling.

It ensures the uniform re-use of explicit knowledge in decision making that can justify the exhaustive use of the strategies required. As a result, organizations applying this strategy should encourage staff to use and contribute to knowledge repositories. However, today, most organizations use combination of both strategies-personalization and codification to capture knowledge.

2.2.1.4 Knowledge application

Knowledge application focuses on the utilization of existing knowledge to create value. It involves bringing existing knowledge to solve organizational problems at hand or leveraging existing knowledge assets to improve products and services.

2.2.2 The SECI Model of Knowledge Conversion

The SECI model, developed by Nonaka , helps us to understand the process of knowledge creation and sharing by the spiraling process of interaction between explicit and tacit knowledge.

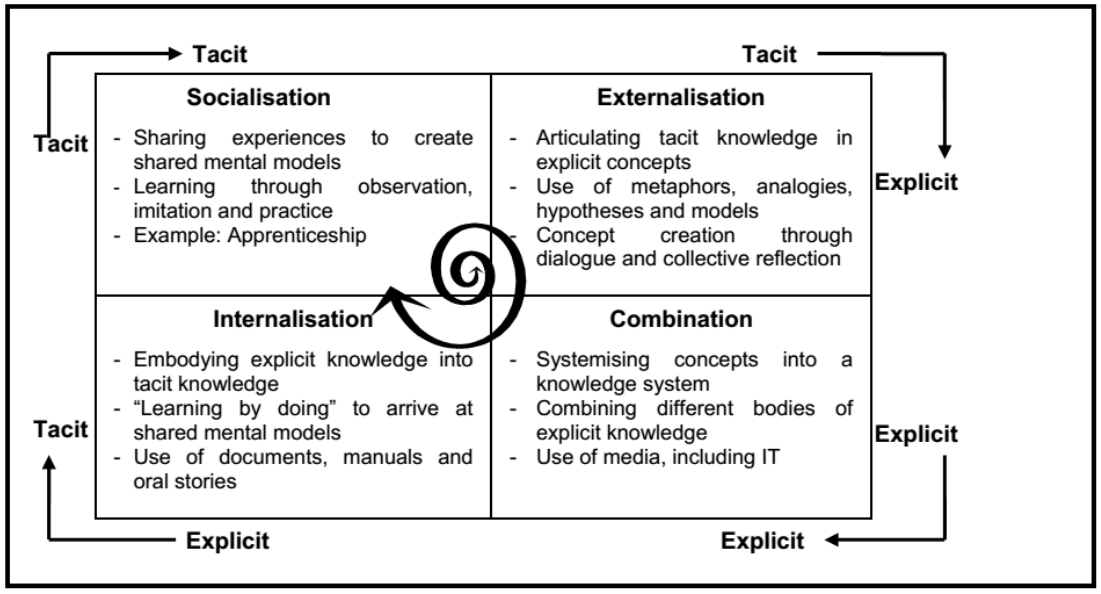

Figure 1: the SECI process of knowledge conversion (Source: Nonaka and Takeuchi, 1995)

2.2.2.1 Socialization

This is the process of creating new tacit knowledge through shared experiences. Since tacit knowledge is usually difficult to articulate and grasp, it can be acquired only through personal interaction or sharing experience. Socialization occurs in practices such as mentoring and couching, job rotation, cooperative projects and a self-organizing team that contains members from different functional departments working together to achieve a common objective. Knowledge is passed on through practice, guidance, imitation and observation. Examples here are face to face meetings, video and teleconferences,

2.2.2.2 Externalization

This is the process of articulating and transferring tacit knowledge into explicit knowledge. This process involves translating the tacit knowledge of employees or clients into easily

understandable forms to be stored in a repository. Externalization is the process in which a person turns his tacit knowledge into explicit knowledge through documentation, verbalization, etc., (tacit to explicit). Tacit knowledge is codified into documents, manuals, web pages etc., so that it can spread more easily through the organization. The most common form of this process is through electronic mail.

2.2.2.3 Combination

Organizations collect explicit knowledge and then combine, edit, and process it to form new systemized and packaged explicit knowledge .Combination is a process of systemizing concepts into a knowledge system, such as databases and knowledge bases. It involves reconfiguration of existing information through sorting, adding, combining, and categorizing explicit knowledge can also create new knowledge. The combination of explicit knowledge is most efficiently supported in collaborative environments utilizing information technology.

2.2.2.4 Internalization

This is the process where an individual internalizes explicit knowledge to create tacit knowledge (explicit to tacit). Through internalization, explicit knowledge becomes the individual's new tacit knowledge base in the form of shared mental models or technical know-how. Mechanisms such as on- the-job training, mentoring, learning by observation, learning by doing allow the individual to internalize explicit knowledge. In order to make internalization possible, organizations have to encourage and facilitate informal conversations and discussions. Thus, designing physical meeting spaces and conducting face-to-face meetings may be essential for internalization.

2.3 Components of KM

Major components of KM that are widely discussed in literatures is to think of knowledge management in terms of three components, namely people, processes and technology. These components are often thought as pillars or three-legged stool on which all other dimensions of KM to rest (Misra, 2007). According to Misra (2007) these three pillars are most important for organizational KM.

2.3.1 People

This pillar mainly concerns with an organization's culture (including values and behaviors) that is conducive for knowledge management. This component is typically the most important and

yet often the most difficult challenge as people have crucial roles for creating, sharing, structuring, using and auditing of knowledge in the organization. Hence, knowledge management is first and foremost a people issue. This component includes whether the culture of organization supports learning and knowledge sharing; the motivation and reward for creating, sharing and using knowledge; whether there is a culture of openness and mutual respect and support. On the other hand, if an organization is very hierarchical people may not feel inspired to innovate and learn from mistakes. So they are reluctant to share.

2.3.2 Processes

In order to improve knowledge sharing, organizations often need to make changes to the way their internal processes are structured, and sometimes even the organizational structure itself. For example, if an organization is structured in such a way that different parts of it are competing for resources, then this is most likely be a barrier to knowledge sharing. Looking at the many aspects of how things are done in an organization, which processes constitute either barriers to, or enablers of, knowledge management should be identified and the barriers should be removed.

2.3.3 Technology

Technology is often a crucial enabler of knowledge management – it can help connect people with information, and people with each other, but it is not the sole solution. And it is vital that any technology used matches the organization's people and processes, otherwise it simply not be used(Kim and Lee, 2006).

2.4 Importance of KM for Organizations

KM efforts help organizations to share valuable organizational insights, to reduce redundant work, to avoid reinventing the wheel, to reduce training time for employees, to retain intellectual capital as employees' turnover in an organization and to adapt to changing environments (Omotayo, 2015).

In their study of the status of KM in the public sector in Nepal, Nirmala and Shrestha (2004) are of the view that the ultimate objective of KM in the public sector is to maximize productivity and enhance public service delivery. They believe that KM at government level aims to improve the internal processes and formulate sound policies and procedures for efficient public service delivery and increased productivity. Nirmala and Shrestha (2004) believe that KM improves

decision-making in the public sector as it enables the right knowledge to be received by the right person at the right time, so that he or she makes the right decisions. For these objectives to be attainable there have to be strong systems and mechanisms to share knowledge.

Wiig (2002) identifies the following objectives for KM initiatives in the public sector:

- Maximizing efficiencies across all public services by connecting silos of information across different levels of government and across borders;
- Developing new or consolidated systems to improve overall performance and capitalize on a broader, more integrated and more easily accessible knowledge base;
- Improving accountability and lessening risks by making informed decisions and resolving issues faster, supported by access to integrated, transparent information across all organizational boundaries;
- Delivering better and more cost effective services by enhancing partnership with and responsiveness to the public.

In general, at the individual level KM help employees get the chance to share their experiences, knowledge and learn from each other's expertise, experiences and mistakes, thereby enhancing performance and improving their skills. At the organizational level, efficiency, quality, productivity and better decision making are the major benefits reaped from KM (Cong, Xiaoming and Pandya 2004).

2.5 The Need to Manage Knowledge in Public Sectors

Public sector organizations refer to the functioning agencies and units at the federal, state, country, municipal and local levels of government (EktaArora, 2011). The activities of central public organizations are more knowledge-intensive and the staffs are usually highly educated (Syed-Ikhsan and Rowland, 2004). On the other hand, public sectors operate in an environment where for reasons of public interests, transparency is widely encouraged and the bulk of knowledge is widely available. Sources of knowledge in government, according to Misra (2007), include ministers, legislators, civil servants, documents (such as files, agenda, records of proceedings, minutes, government orders, notifications), laws, rules and regulations, archives, knowledge embedded in physical systems and business processes, and citizens and non-citizens (say, tourists).

According to Abdullah and Date (2009) the following four characteristics of government organizations necessitate knowledge management;

(a) Knowledge is an inimitable resource of the government; effective government rests on effective acquisition and dissemination of knowledge;

(b) Government is a distributed enterprise therefore similar knowledge requirements are spread across states and local governments;

(c) Frequent transfers of knowledge workers across government departments cause problems of "knowledge drain"; and

(d) The need for "anticipatory governments" which learn from past experience, understand the present scenario, anticipate future threats and opportunities.

According to Mitre-Hernández, Mora-Soto, López-Portillo, & Lara-Alvarez (2015), KM programs in public sectors focus on ways to manage and distribute what government institutions know internally, with the purpose of taking collaborative decisions so that this management effort can contribute to a more efficient, transparent and social needs sensible acting from government. Consequently, KM is crucial not only for institutional success but also for societal development (Wiig, 2002).

2.6 Knowledge Sharing

Knowledge sharing (KS) refers to the provision of task information and know-how to collaborate with others so as to solve problems, develop new ideas, or implement policies or procedures (Cummings, 2004). According to Davenport and Prusak (1998), knowledge sharing is identified as one of the processes in knowledge management. It is "the process of transferring knowledge from a person to another in an organization" (Goh, 2002). As mentioned by Lee and Al-Hawamdeh (2002), "Knowledge sharing is a deliberate act that makes knowledge reusable by other people through knowledge transfer".

Similarly, Yang, & Chen (2007) defined knowledge sharing as the process by which explicit or tacit knowledge can flow between individuals, groups, within and between departments, or organizations.

As explained by Goh (2002), knowledge sharing requires the willingness of an individual or group in an organization to display a high level of cooperative behavior by working with one another and share their knowledge for their mutual benefits. Therefore, shared knowledge is more valuable to an organization than the knowledge that resides only in individuals.

Although knowledge sharing is viewed as a distinct process than knowledge creation, however sharing of knowledge also fosters the knowledge creation and utilization processes in organization. Knowledge sharing process helps organizations to enhance their productivity by transferring best practices and ideas from one individual and department to another. Knowledge sharing is a vital source of creativity and innovation (Cummings, 2004), and enhances organizational success by increasing organization's ability to respond to environmental challenges and opportunities (UNPAN, 2008).Knowledge sharing among employees enhances utilization of the talent, perspectives, and ideas of the members and creates common understandings particularly regarding work (Goh, 2002).

In general, for an organization, the sharing of knowledge among its employees promises many benefits: Among these, some are- knowledge allows the organization to build on past experience and knowledge, respond more quickly to problems, develop new ideas and insights, and avoid reinventing the wheel or repeating past mistakes.

2.6.1 Knowledge *Sharing in Public Sector*

Knowledge sharing refers to the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures (Cummings, 2004). Bhatt (2002) indicated that sharing knowledge in complex organizations is extremely important, as tasks are highly interdependent and individuals do not possess all the knowledge required to solve interdisciplinary problems in complex situations by them. If employees can utilize and share their individual knowledge of working, then both the organization and individuals can grow up. If knowledge cannot be effectively shared in an organization, then it is likely to fade away (Cummings, 2004).

In this regard, knowledge sharing has been identified as the important capability in improving the quality of service delivery in the public sector organizations (Cummings, 2004). For nonprofit organizations like public sectors, "knowledge sharing represents ways to increase

continuous performance, and is thought to improve the customers and employees satisfaction"(UNEGOV, 2003). The public sector organizations can seek to maintain the practices of knowledge sharing into the activities that meet their needs and to ensure the continued participation in developing the knowledge based environment hence delivering quality and superior services to the communities (Wiig, 2002).

However, there are various factors that should be identified to foster knowledge sharing. In short, these factors can be categorized into three dimensions: organizational, individual, and knowledge level (Yang & Chen, 2007).

There are several organizational factors that affect knowledge sharing. Among those organizational culture, organizational structure and information technology are important (Davenport & Prusak, 1998;Kim and Lee, 2005; Bock, Zmud & Kim, 2005). Kim and Lee (2005) explored that, these three organizational factors- organizational culture, organizational structure and information technology significantly influence knowledge sharing in public organizations. Ipe (2003) also discussed that culture of the work environment is the most critical factor that influences knowledge sharing within organization.

2.6.2 KS Strategies and Practices in Organizations

There are many ways for an organization to identify, store, and share knowledge. Knowledge sharing strategy is a mechanism, a method, procedure or process involved in knowledge sharing activities within organization (Abdul Manaf and Marzuki, 2009). To enable effective knowledge sharing in an organization, knowledge sharing strategies should be used to exchange ideas, experiences and skills among members.

Knowledge sharing practices are the formal or informal routines or day-to-day operation used in an organization for the provision of task information, experiences and skills to help others and to collaborate with others to solve problems, develop new ideas, or implement policies and procedures.

Various practices are used for knowledge sharing within organizations. Some of the practices that are mentioned in the literature are the following.

2.6.2.1 Mentoring

Mentoring is perceived as a way of transferring knowledge through communication and interaction from experienced employee to less experienced one , usually a newcomer (Bencsik, Juhász and Machova, 2014). During mentoring, a mentor transfers organizational rules, norms, and values, along with knowledge. In other words, mentees acquire both knowledge and corporate culture that makes them feel loyal and committed to the organization. Mentoring is identified as a core HRM practice that supports and facilitates knowledge sharing.

2.6.2.2 Training

Training is described as a practice aimed at gaining new knowledge by training participants and developing their skills. Training is hold in a particular place at the particular time that helps participants to focus on learning. Practice-oriented training is perceived as valuable source of knowledge. The knowledge should be understandable and applicable to the employees' experience in order to be then internalized and shared with others when it is necessary (Garanina, 2008). Training has little effect if it does not include practical exercises.

2.6.2.3 Communities of practice

Communities of practice are networks of people who work on similar processes or in similar professions, who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis for the benefit of both themselves and their organizations (Koliba and Gajda, 2008). Communities of practice are sorts of professional association that may be created formally or informally, and they can interact online or in person.

2.6.2.4 Exit Interview

Exit interview is an interview that is conducted with an employee who is about to leave an organization so as to retain some critical information and knowledge within the organization (Garanina, 2008). Increasingly, however, exit interviews are a label for a specific learning process emphasizing the importance of capturing and storing know-how. Obviously, it is impossible to capture all of the knowledge of any individual, but exit interviews are designed to minimize the loss of useful knowledge through staff turnover and ease the learning curve of new staff. The information from each exit interview can also is used to provide feedback on why employees are leaving, what they liked about their employment and what areas of the organization need improvement.

2.6.2.5 Team Work

Among mechanisms identified by Bartol & Srivastava (2002) how individuals share their knowledge within organization four across teams or work units. A team is a group of two or more individuals who must interact to achieve one or more common goals that are directed toward the accomplishment of a productive outcome. Since the nature of such task requires the involvement and interaction of the team mates, the knowledge required to accomplish the task need to be contributed from them. Hence team work creates opportunity for KS. Collaboration is often used more specifically to describe close working relationships involving the sharing of knowledge. An example of collaboration is a cross-functional team.

2.6.2.6 Meetings

Meetings are most commonly tool, used for a variety of purposes to develop focused interactions between people. For instance, meetings play an important role in information sharing, knowledge creation and knowledge management, coordination, decision making, problem solving, employee involvement, socialization, shaping the culture and strengthening of group relationships (Fresno and Savolainen, 2014). According to Fresno and Savolainen (2014) during meetings, organizational members can share knowledge effectively by expressing opinions and ideas to the team directly. This helps in the collective evaluating and redesigning of new knowledge to the team. Some formal meetings such as review meetings and project briefing sessions can generate new ideas and provide lessons learned to project participants, which can achieve the aim of knowledge sharing. Informal discussions also allow people to discuss issues in a more informal and relaxed environment compared with formal project mechanisms (Garanina, 2008).

2.6.2.7 Benchmarking

Benchmarking is defined by Okunoye, Innola and Karsten (2002) is a simple learning from others by accessing an already existing pool of knowledge so that the collective learning and experience of others could be used by those who wish to improve t heir own organizations. It is the practice of comparing features and performance of an organization, department or function with those of other organizations and standards. Of course, when benchmarking care should be taken as something that works well for a given organization in one situation may not work well in another organization under different circumstances. There are lessons to be learned from undesirable situations as well as from best practices – things that have been proven to work well and produce good results. Benchmarking is particularly of importance for governmental

organizations in developing countries where such organizations mostly lack systematic, organized, structured and validated interventions or initiatives (Al-Alawi, Al-Marzooqi, and Mohammed).

2.6.2.8 Good practice

According to Serrat (2008), a good practice is a process or methodology that has been shown to be effective in one part of the organization and might be effective in another too. It is a process or methodology that has been shown to work well and produce good results and is, therefore, recommended as a model. Although some authors prefer to use the term "best practice" instead of "good practice" but it is debatable whether there is a single "best" approach and approaches are constantly evolving and being updated. Serrat (2008) mentions the following benefits from identifying and sharing good practices:

- Identify and replace poor practices
- Raise the performance of poor performers closer to that of the best
- Decrease the learning curve of new employees
- Reduce rework and prevent "reinvention of the wheel"
- Cut costs through better productivity and efficiency
- Improve services
- Minimize organizational knowledge loss (both tacit and explicit)

2.6.3 Organizational Culture and KS

Sociologically culture is described as the total of the inherited ideas, beliefs, values, and knowledge, which constitute the shared bases of social action at the nation level, regional, organizational, ethnic or family levels (Pawluczuk and Ryciuk, 2015).

Organizational culture refers to underlying beliefs, values, and assumptions held by managers and staff and the practices and behaviors that reinforce these (Baldini, 2005). Al Mehairi (2016) describes organizational culture as the shared values, principles, traditions, and ways of doing things that influence the way organizational members act. Organizational culture can also be defined as "the combination of shared history, expectations, unwritten rules, and social traditions that affects the behavior of every member of an organization. Al Mehairi (2016) pointed out that

organizational culture happens as a result of the feelings of employees combined with policies, practices and procedures as well as a group of abstract aspects such as what is to be believed and valued.

According to Husain (2015), organizational culture is manifested as characteristics that include innovation and risk taking, attention to details, outcome orientation, people orientation, team orientation and aggressiveness. On the other hand, for Anderson and Ackerman (2010) indicators for organizational culture are issues such as leadership style, communication pattern, decision making style, use of information, use of ICT for information sharing, status classification and privilege, performance standard and expectation.

As Nonaka and Takeuchi (1995) noted, knowledge resources are an outcome of organizational culture and structure, because knowledge is created, made sense of, and utilized in accordance with a set of cultural values and norms, embedded in structural relationships. For example, knowledge sharing practices are affected by cultural expectations such as what knowledge should be shared with the organization and what should be hoarded by individuals and by structural relationships such as how quickly the knowledge flows through formal reporting relationships. For example, as Holste and Fields (2010) put it, an organization that lacks trust and fails to reward or promote the cooperation and teamwork will suffer its bureaucratic culture. Moreover, the organization that cannot gain trust from its workforce will have troubles to share knowledge among its workers (Holste and Fields, 2010).

In turn, organizational knowledge is reflective of cultural, structural, characteristics of the organization that is utilized to help produce new products and services, improve efficiency, and enhance effectiveness (Nonaka and Takeuchi, 1995). Finally, the organizational promotion of knowledge sharing is changing traditional ideas concerning managing intellectual resources and employee work styles by providing new processes, disciplines and cultures, thus constituting an organizational innovation (Nonaka and Takeuchi, 1995). Moreover, every organization has its own organizational culture and climate (McNabb, 2007)

Knowledge sharing can be viewed as behavior sets for knowledge sharing consisting of various elements such as actors, content, organizational context, appropriate media, and social environment (Yousaf et al, 2013). Organizational culture is believed to be the most

significant factor in effective knowledge management (Gold, Malhotra, &Segars, 2001). An effective organizational culture can provide support and incentives as well as encourage knowledge-related activities by creating suitable environments for knowledge exchange and accessibility (Baldini, 2005). As suggested by Baldini (2005) an organization must have a strong culture that values trust, openness, and sociability to stimulate people's interactions and knowledge sharing. For instance, an organizational culture that facilitates trust between employees and their managers will positively influence knowledge sharing (Holste and Fields, 2010).

According to Al Mehairi (2016), culture can widely affect the knowledge sharing process by facilitating or restricting the flow of knowledge. Organizational culture is becoming the most frequently cited enabler of knowledge sharing. Organizational culture plays a vital role as enabler in promoting knowledge sharing norms and learning motivations among members of an organization (Hansen, 1999). According Muciek and Lutek (2013), cultural elements of an organization that are supportive to knowledge management include proactive goals aiming at change of environment, strong team culture, favorable for ideas exchange, effective leadership supporting changes and teams work, openness and honesty, high-trust culture for common learning, expanded need for education and creativity, general belief in the value of learning, belief that excellent customer service must be accompanied by high level of knowledge, and belief in knowledge as the key element of sale, service and quality. An effective knowledge culture encourages innovation, from the initial creative idea to the experimentation and sharing of insights with others. There is a need to encourage flexible and adaptable behavior. Routines and processes need to be flexible as it encourages people to look for opportunities to work towards creative alternatives (Gold, Malhotra & Segars, 2001). Organizational cultures are hard to change and manage because these cultures have developed into general habits. However, the commitment of top managers along with sufficient support from key persons from different levels of the organization can change organizational culture.

2.6.4 Organizational Structure and KS

Organizational structure includes division of staff, departmentalization and distribution of authority which is necessary to support the decision process of the organizations (Gold, Malhotra, & Segars, 2001). Organizational structure is addressed by several studies as an

important dimension affecting knowledge sharing (Bock, Zmud& Kim, 2005; Kim and Lee, 2006). The rationale is that if organizational structure rigid and less flexible, the employees will not empowered enough to handle the decision-making process. If authority and responsibility are restricted, so employees may well reduce their level of commitment for KS. For example, in many studies organization structure such as bureaucratic structure are said to block the flow of knowledge. Bureaucracy is characterized by highly routine operating tasks achieved through specialization, very formalized and rigid rules and regulations, tasks that are grouped into functional departments, centralized authority, narrow spans of control and decision-making that follows chains of command and lack of flexibility (Kim and Lee, 2006).However, some scholars argue in favor of bureaucratic organizations in the public sectors claiming the presence of bureaucratic structures will benefit the process of an innovation implementation because clear and explicit regulations, standardization, and hierarchies support supervision to reduce the chance of errors, disobedience, and negligent behavior among people. Therefore, the nature of the bureaucracy matters. Gold, Malhotra, &Segars (2001) argue that a team-based, non-hierarchical, self-organizing organizational structure is the most effective for knowledge sharing. They indicated that the important role of the flexible organizational structures on successful KM implementation.

They further suggest that flexible structures help achieve decentralization of decision-making process by facilitating the communication process at all organizational levels. Similarly, Al-Alawi, Marzooqi & Mohammed (2007) emphasized that organizational structure characterized by participative decision making, ease of information flow and cross-functional teams contribute positively to support knowledge sharing.

Organizational structure guides the formal channels through which knowledge flows in an organization and a rigid structure can hinder the flow of knowledge (Al-Alawi, Marzooqi and Mohammed, 2007).

2.6.5 Technology Use and Knowledge Sharing

Technology is defined as material artifacts such as software and hardware used to perform duties in organization (Bakhari and Zawiyah, 2014).While the human aspect is important, technological aspects also deserve consideration. Hendricks (1999) suggests that information and communication technology (ICT) may be helpful to enhance knowledge sharing. It could be done by lowering temporal and spatial barriers between knowledge workers, and improving

access to information about knowledge. Cabrera and Cabrera, (2002) stated that modern information and telecommunication technology are used to support knowledge sharing across time and distance. However, it has limited value because it ignores when and how the quality of knowledge sharing will be enhanced. In line with that attitude towards the adaptation of new technology is a vital determinant to facilitate, encourage and support knowledge sharing among employees.

According to Paghaleh, Shafiezadeh and Mohammadi (2011), information technology (IT) can affect knowledge management in different ways:

- IT facilitates fast knowledge acquisition, storage, and exchange in a way that has never been possible before.
- IT integrates and unifies the separately functioning components of knowledge removing the obstacles on the way of communication between various divisions of an organization.
- IT improves all the methods of knowledge creation, transfer, storage, and implementation.

Alavi and Leidner (2001) also note that IT increases knowledge transfer by extending an individual's reach beyond formal lines of communication. For example, computer networks, electronic bulletin boards, and discussion groups facilitate contact between those seeking knowledge and those who control access to knowledge. Developments in knowledge management focused on providing electronic databases, network systems, and software to encourage the distribution of knowledge (Chow and Chan, 2008).

According to Komanyane (2010) information technology enables rapid search, access and retrieval of information, and can support teamwork and communication between organizational members. Therefore access to IT infrastructure, IT know-how and IT usage are crucial for effective KS.

2.6.6 Information Management and Records Management

2.6.6.1 Information Management

It is to be recalled that knowledge sharing is defined as the process by which explicit or tacit knowledge can flow between individuals, groups, within and between departments, or organizations. Whereas, Information Management (IM) can be defined as processes, through

which an organization collects, organizes controls and spreads information, ensuring that the value of that information is identified and exploited to maximum potential (AGIMO, 2004; Lipchak, 2002) .

In order to distinguish KM from IM, it is very important to understand the concepts of knowledge and information. Although many researchers such as Bartol and Srivastava (2002), Wang & Noe (2010) use the terms knowledge and information interchangeably, emphasizing that there is not much practical utility in distinguishing knowledge from information in knowledge sharing research, most other researchers believe that all information is considered knowledge but knowledge is more than just information, i.e., knowledge includes information and know-how (Wang &Noe, 2010). Accordingly, information is organized data to characterize a situation; whereas, knowledge is a set of truths and beliefs, perspectives and concepts, judgments and expectations, methodologies as well as know-how (Wiig, 2002). On the other hand, knowledge is described as a mixture of experience, values, information and expert view that ensures a skeleton for evaluating and incorporating new experiences and information (Davenport and Prusak, 1998). Hence, knowledge should be understood as a combination of information, experiences, values, expertise, assumptions and logical reasoning formed in the minds of human beings.

Hence, the main interaction between IM and KM is that knowledge is acquired and learned not only from experiences but mainly from information. That is, if this created information is then used and shared with the purpose to create new ideas and value (knowledge). This means, information is in this context, an integral part of knowledge. On the other hand, knowledge can also be translated into information through its application within various circumstances. Then the process can be described as a cyclic. Therefore, one can say IM and KM are interdependent.

Information management deals exclusively with explicit representations and ensuring access, security, delivery and storage where efficiency, timeliness, accuracy, speed, cost, storage space and retrieval are the main concerns (Fotache, 2013; Lipchak, 2002). Thus, information management (IM) is a subset of KM. In other words, KM is broader than information management as it does not only deal with data and information and systems but also encompasses the human aspect of the organization, organizational learning and innovation (Al-

Hawamdeh, 2003). Therefore, information management can be regarded as an integral part of the organizational knowledge management

2.6.6.1.1 Records Management

Another important concept related to information and knowledge in organizational setting is the issue of records, since in organizations knowledge often becomes embedded in documents, repositories, organizational routines, processes, and norms. (Davenport & Prusak, 1998; Bartol & Srivastava, 2002). Since knowledge exists in a recorded or explicit form in addition to its existence in tacit or unrecorded form, the notions of records and records management are related practices of organizational KM in general. Even though many scholars consider recorded knowledge as equivalent to information, recorded knowledge is argued to be richer than information as it is the result of personal experience, insights, reflections, and logical reasoning created in the minds of human beings (Kebede, 2010).

Records are defined as any recorded information created, generated, collected, or received in the conduct of a business activity (Lipchak, 2002). Anything on which information has been recorded is usually termed as a document. A record is created to serve necessary functions such as providing information and evidence used to make decisions, take action, demonstrate accountability or enable other uses.

Records Management is a sub field of information management responsible for the efficient and systematic control of the creation, receiving, maintenance, use, and disposition of records mainly dealing with unstructured, document-based information (Lipchak, 2002). For proper management of information, therefore, these documents should be classified, catalogued, properly arranged, and stored, maintained and preserved to be used whenever needed. Records and documents can be retained in paper or electronic form. They can also take the form of multimedia files embracing voice and audio.

Records management is an important aspect of KM as it ensures that the evidence of business is documented and preserved (AGIMO, 2004). Hence, effective document management enables knowledge sharing by allowing staff to easily access, update and save information into files in a controlled manner. When a records management system works well, the information contained in records can be retrieved readily, the disposal of unneeded records and the retention of valuable

information can be managed effectively, and space, facilities, and resources can be used efficiently and economically (International Records Management Trust, 2000).

All public and private organizations are required to manage their records by law so that they can be accountable, transparent, provide reliable information when required to, make effective decisions, understand the history and context of business decisions and function efficiently and effectively(AGIMO, 2004; International Records Management Trust, 2000). Indeed, Government records are the essential evidence of actions, transactions and decisions and of government's interactions with citizens, clients and customers and an expanding range of stakeholders. They also provide the fundamental means by which the transparency, accountability and effectiveness of government can be accomplished, demonstrated and measured (AGIMO, 2004). Moreover, records are so fundamental to the concept of a democratic society, that records support constitutional arrangements and provide an institutional memory. Hence, working within a framework of laws, management practices and organizational culture, political leaders and public sector managers are expected to create, maintain and protect the evidence that they have acted responsibly and appropriately.

According to AGIMO (2004), records management has remained a neglected area of public sector reform and that, in many countries while the civil service expanded steadily bringing with it a corresponding increase in the flow of paper, public sector record keeping systems are weak. Formal rules often replaced by informal practices and ad hoc work methods and hence records management has collapsed to the point where they barely function. These situations lead to severe problems in information retrieval and thus in many cases, the institution grew used to making decisions without referring to records (Lipchak, 2002).

Among the factors that contribute to the deteriorating of record keeping systems in public sectors include – lack of awareness on significance of information assets by top management (Evans and Price, 2012) , lack or limited staff training or experience with record keeping work, inadequacy of the file classification and indexing systems originally designed to meet the record keeping requirements of the centralized governance to meet the needs of complex modern governments and the little or no incentive to maintain effective record keeping systems or to allocate adequate resources for records storage and staff (International Records Management Trust, 2000;Lipchak, 2002). Moreover, despite the low usage of records, an extreme reluctance in many countries to

destroy records after they ceased to have any value to the institution exacerbates the problems of information retrieval and office space usage (International Records Management Trust, 2000).

In general, when a records management system works well, the information contained in records can be retrieved readily, the disposal of unneeded records and the retention of valuable information can be managed effectively, and space, facilities, and resources can be used efficiently and economically (International Records Management Trust, 2000). So records management is an important pillar of information and knowledge management in any organization.

2.7 Organizational Learning and Learning Organization

2.7.1 Organizational Learning

There are many definitions of organizational learning. Let's see some definitions of organizational learning from the literature.

Dalkir (2005) defined organizational learning is the process that enables an organization to adapt to change and move forward by acquiring new knowledge, skills, or behaviors, and thereby transform itself. Olejniczak & Mazur (2014) define organizational learning as "adaptation that is based on the social process of reflection that produces new insights, knowledge and association between past actions, the effectiveness of those actions and future actions".

On the other hand, Castaneda and Rios (2008) define organizational learning as "a process based on individual learning through private and public organizations engaged in creating and obtaining knowledge for the purpose of institutionalizing it in order to adapt as an organization to the changing conditions of the environment or to change the environment proactively, depending on its level of development".

According to Olejniczak & Mazur (2014), organizations learn by expanding individual knowledge through the spiral of knowledge creation that involves the interaction of tacit and explicit knowledge at three levels of analysis (individuals, teams, and organizations). They further asserted that organizational learning occurs when individual members of the organization learn, although this does not mean that individual learning guarantees organizational learning. Rather, it means that no organizational learning occurs unless individuals learn. Although individual learning is important and underpins an organization's development, team learning

appears to be a crucial element for knowledge sharing and integration (Olejniczak& Mazur , 2014).

Here it is possible to observe that the adaptation emphasized in the definitions of organizational learning above implies the need for learning in the context of public sector organizations that involves developing innovative solutions to the constantly changing legal, political, economic and social environments. In line with these, Common (2004) as cited in (Gilson, Dunleavy & Tinkler, 2009) argues that in the public sectors organizational learning can be regarded as the ability of an organization to demonstrate that it can learn collectively by applying new knowledge, that involves learning, to the policy process or innovation in policy implementation. It is also argued that organizational learning can improve the policymaking capacity of government.

As Majil (2012) suggested, the benefits of making learning a priority in organizations include:

- To increase everyone's capacity to contribute to the success of the organization;
- To enable the organization to be more effective in meeting its long and short terms goals.
- To ensure the long term success of the organization;
- To make continuous improvement a reality; and
- To ensure successes and best practice are transferred and imitated.

As noted by Gilson, Dunleavy & Tinkler (2009) individual learning involves mental/cognitive processes such as experiencing, observation, reflection, experimentation and generalization; while organizational learning involves social processes such as beliefs, actions, outcomes, insights and dissemination. They further noted that in order to provide a sense of psychological safety for individual to learn together, individual learning needs must be met in combination with organizational learning needs so as to institutionalize changes into organizational routines, operating procedures, and shared beliefs. A safe learning environment provides an atmosphere in which employees may question, learn and share their thoughts and ideas without being seen as ignorant, incompetent, negative, or disruptive, and thereby make room for new ideas and changes.

2.7.1.1 Types of Organizational Learning

There are various types or levels of organizational learning. The types of organizational learning identified by prominent authors Agryis & Schön (cited in Majil, 2012, Gilson, Dunleavy & Tinkler, 2009) are single-loop learning, double-loop learning and triple (deuteron) learning.

2.7.1.1.1 Single-Loop Learning

Organizational learning involves the detection and correction of error. The practice of single-loop learning allows the individuals to measure performance against a specific set of pre-approved standards, which are not open to question. Single-loop learning requires the acceptance of established norms and provides no framework for challenging, rethinking or in any way altering the determined standards. Hence, it is also being referred to as "lower-level learning" as it ignores a more fundamental problem, i.e. why the mismatch existed in the first place

2.7.1.1.2 Double-Loop Learning

Double-loop learning occurs when, in addition to detection and correction of errors, the organization is involved in the questioning and modification of existing norms, procedures, policies, and objectives. In other words, double-loop learning asks questions not only about objective facts but also about the reasons and motives behind those facts. It can therefore be said that double-loop learning increases organizational problem-solving capability.

2.7.1.1.3 Strategic or Triple-Loop Learning

This is the third and highest organizational learning level. At this level, members of an organization reflect on, and enquire into the organization's previous contexts and experiences of learning. Based on these reflections, the organization and its members learn to learn, understand what facilitates or inhibits learning and invent new approaches to learning. When an organization engages in strategic learning its members reflect on and inquire into previous contexts of organizational learning, or failure to learn. They discover what they did that facilitated or inhibited learning, they invent new strategies for learning, they produce these strategies, and they evaluate and generalize what they have produced. However, double-loop and strategic learning are rare in most organizations because of organizational leadership and culture that influences its occurrence (Majil, 2012).

2.7.2 Learning Organization

According to Peter Senge (cited in Olejniczak & Mazur, 2014) learning organizations are "organizations where people continually expand their capacity to create the results they truly

desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together".

On their part, (David, Garvin, Edmondson, and Gino, 2008) define a learning organization as "an environment that encourages participation and exchange of knowledge; providing the tools for that process and the creation, storage, and transfer of knowledge in an institutionalized process supported by the organization's top management".

Some of the characteristics of a learning organization, as noted by (Gilson, Dunleavy &Tinkler, 2009)

- It not only seeks to achieve results, but also seeks to understand how it achieves results.
- It actively seeks to learn from its successes and failures.
- It asks itself difficult questions, can discuss its weaknesses openly, and has the courage to correct itself.
- It regularly challenges its basic assumptions about how things are done.

David, Garvin, Edmondson, and Gino (2008) suggest the following are building blocks or strategic elements of a learning organization. These are: (i) clarity of mission and vision, (ii) leadership commitment and empowerment, (iii) experimentation and motivation (iv) effective transfer of knowledge, and (v) team learning.

(i) Clarity of organizational mission and vision is related to organizational culture, strategic planning, leadership and communication. It is when a mission and vision-based culture exists that employees' behavior is guided by shared norms and assumptions about the organizational purpose. The lack of a clear and widely accepted organizational vision and mission could lead to weak cohesiveness and resistance towards successful implementation of strategies.

(ii) Leadership commitment and empowerment: Leaders of learning organization need to be good role-models of proactive learning, as such behavior tends to facilitate the development of a strong learning culture. Leaders should empower organizational members in knowledge enquiring and sharing and have the ability to solicit feedback from organizational members and being open to criticism. Leaders should genuinely value learning and support wise

managerial interventions and organizational policies that foster social, work and practice based learning (David, Garvin, Edmondson, and Gino, 2008). So a leader in the learning organization has to inspire the individuals to learn on all organizational levels, share knowledge with their coworkers and separate time for learning, but time spent in learning should be looked as real work from the organizational aspect.

(iii) Experimentation and motivation: Experimentation and motivation which include acquiring feedback and correcting potential errors are also strategic building blocks of learning organizations for they are crucial for knowledge generation and sharing among people. This implies that experimentations increase opportunities to learn from mistakes and an essential process to discover new knowledge.

(iv)Effective transfer of knowledge: As an intelligent organization, learning organization should be able to utilize the intellectual power of all its organizational members. Hence, this needs effective transfer/share of knowledge among individuals and component units of the organization.

(v) Team Learning: Team learning is defined as group of skilled-individuals learning from each experiences and knowledge of each other. As noted by (David, Garvin, Edmondson, and Gino, 2008), individual learning is important and supports an organization's development, team learning appears to be a decisive element for knowledge sharing and integration in the organization. For this learning to happen organizational teams would need to have strong sense of team trust in order to pursue effective learning and knowledge sharing.

As asserted by (David, Garvin, Edmondson, and Gino, 2008), in successful learning organizations:

- Individual learning is continuous;
- Knowledge is shared;
- The organizational culture supports learning;
- Employees are encouraged to think critically and to take risks with new ideas; and
- All individuals are valued for their contributions to the organization.

As a result, the organization will have organizational knowledge that enable to accomplish collective tasks that individuals acting alone cannot undertake.

2.8 Opportunities for Knowledge Sharing in Public Sector

2.8.1 The Quest for Better Services

Public organizations are involved in activities that are typically more knowledge intensive and the staff are usually highly educated than private organizations (Syed-Ikhsan and Rowland, 2004; Misra, 2007). With public service delivery and policy-making as their primary functions, public organizations rely more heavily on knowledge sharing both internally and externally with their various stakeholders (OECD, 2003). More importantly, governments of all countries today are under severe pressure from their citizens, who want better quality services, yet with less cost for the taxpayers (McAdam and Reid, 2000). Knowledge is one of the most important resources that contribute to the effective policy formulation, efficient service delivery and proper decision making for public sectors.

In the case of Ethiopian public sectors, reportedly, there is lack of capacity in government departments (Duressa & Asfaw, 2014). Duressa & Asfaw (2014) further state that despite numerous costly capacity building efforts, the trainings provided couldn't bring about the required impact. Trainings by themselves cannot bring the anticipated result unless implemented in the framework of knowledge management and sharing practices. Thus the ever increasing demand for improved services and products by citizens must be taken seriously as an opportunity that render government institutions fertile for KM interventions. Therefore, public service organizations are subject to pressures for learning and innovation.

2.8.2 Public Service Reform Initiatives

The public sector reform which is inspired by New Public Management (NPM), which is a new way of thinking the public sector with main purpose to cut the red tape or, break through bureaucracy (Suurla, Markkula and Mustajärvi, 2002). On the other hand, values such as efficiency and productivity should be placed in the larger context of democracy, community and the public interest (Nigussa, 2014). NPM emphasizes more economic and innovative values and intention to increase teamwork limit the number of rules and obtain more value-driven management and support to decentralization. According to UNPAN (2008), NPM calls on governments to focus on achieving results rather than primarily conforming to procedures and

thus to adopt market-like competition, innovations and entrepreneurial strategies. This means, NPM requires public administration to change its culture and be flexible, innovative, problem-solving, entrepreneurial and enterprising, as opposed to rule-bound, process-oriented and focused on inputs rather than results. In this respect, KM has been encouraged by public organizations intention to upgrade and modernize its core activities (Mitre-Hernández, Mora-Soto, López-Portillo, & Lara-Alvarez, 2015).

According to Abay (2011) NPM paradigm has five interrelated objectives, including:

- Provide high - quality services that citizens value ;
- Increasing managerial autonomy ,particularly by reducing central agency control;
- Demanding , measuring and rewarding both organizational and individual performance;
- Providing the human and technological resources that managers need to meet their performance targets ;
- Maintaining receptiveness to competition and open–mindedness about which public activities should be performed by public servants as opposed to private sector.

All these objectives highlight the importance of KM in the public sector.

Although the successful implementation of NPM more witnessed in developed countries, it also made its way to the developing world over the decades and has created favorable conditions for knowledge management initiatives to be introduced to the public sector (Rashman, Withers and Hartley, 2009). Conversely, to attain the NPM´s ideals requires the implementation of management model based on the concept of knowledge management under the premise of knowledge as a factor for competitiveness and innovation (Rashman, Withers and Hartley, 2009).

The government of Ethiopia, since 1990s, has embarked on reforming its civil service organizations with the objective of improving the public sector service delivery system (Debela, 2010). At present, Civil Service Reform (CSR) is under implementation at all levels in the country through the use of different management tools such as Strategic Planning and

Management, Business Process Reengineering (BPR), Balanced Scorecard (BSC), Civil Service Change Army and Citizens' Charter (Ethiopian Ministry of Civil Service, 2012).

2.8.2.1 Strategic Planning and Management

In organizational context, the purpose of strategic planning is trying to close the gap by aligning what an organization can do considering its strength and weakness with what it must do in order to act on opportunities and threats (Debela, 2009). Similarly, strategic planning is also essential to public administrations to evaluate the situated socio-economic context and decide how to set up goals, allocate resource, and take on actions. In Ethiopian civil service system, every institution at all levels is made to design its 3-5 years strategic plans and implement it accordingly (Abay, 2012).

2.8.2.2 Business Process Reengineering (BPR)

Redesigning business processes and improving working patterns are also a part of public sector reforms. It is the analyzing, simplifying and redesigning the business process to radically improve the cost and the quality of a product or service (Debela, 2009). BPR in the public sector mostly emphasizes quality and productivity improvements, the elimination of bureaucracy, process simplification and the reduction of processing times. Almost every government institution at all levels have reportedly undergone with this tool (Abay, 2012). It is suggested by (Kovacic, 2007) that in the process-based knowledge management business processes are a useful starting point for workers to capture and navigate knowledge while performing their tasks. It is also worth noting that since organizational processes vary based on nature of tasks and organizational realities, the need to tailoring the processes to the actual context makes it even more necessary to incorporate knowledge management and sharing to design and implement BPR initiatives.

2.8.2.3 Balanced Scorecard (BSC)

BSC is viewed as a management communication tool that could be used to spread the vision of the organization to its stakeholders and to communicate and measure the success of the strategy (Muiruri and Kilika, 2015). The balanced scorecard suggests that we view the organization from four perspectives include financial perspective, internal business process perspective, learning and innovation perspective and the customer focus perspective (Muiruri and Kilika, 2015).

The learning and growth perspective that includes employee training and corporate cultural attitudes related to both individual and corporate self improvement. In an organization knowledge workers, people, the only repository of knowledge are the main resource. In the current climate of rapid technological change, it is becoming a necessity for knowledge workers to be in a continuous learning mode.

2.8.2.4 Civil Service Change Army (Yelewit Serawit in Amharic)

It is an organized platform to create a structured approach to implement, monitor and evaluate the operations at each level where team members build their capacity, evaluate the basic challenges and problems they encounter and solve them through democratic way, measure the performance collectively and individually and identify pioneer performers for reward (Ethiopian Ministry of Civil Service, 2012). So the existence and institutionalization of such platform can be considered as an opportunity for knowledge sharing among employees.

2.8.2.5 Citizens' Charter

Citizens' charter is a document that obliges Government institutions to get into agreement with the general public with the manner in which basic public services have been delivered and the modalities in which problems and challenges are to be resolved. The intention to launch the citizens' charter is to enable civil servants to serve the community in an improved and better manner with the expectation to ensure government's accountability, openness and transparency to the public (Nigussa, 2014).

In general the success of reform efforts inspired by NPM and the instituted management tools need application of KM in the public sector. Conversely, the reform efforts also may serve as impetus and pave the way for smooth implementation of knowledge management in the public sectors of Ethiopia.

.However, despite the contribution of the reform efforts in reshaping and restructuring the Ethiopian public sector for the better socio-economic development of post 1991 Ethiopia, there have been a syndrome of on and off to sustain the reform (Nigussa, 2014). According to Nigussa (2014) the implementation of the civil service reforms in Ethiopia faced with lack of properly integrated and sequential approach, inconsistency in performance evaluation system, civil servants resistance to change, lack of accountability in performance management system, less communicated, poor sense of ownership, inefficient technological readiness, weak team work

culture, absence of well designed and implemented remuneration system, lack of awareness on service seekers side on their duties and responsibilities.

2.8.3 E-Government Initiatives

In the literature, the term e-government or e-gov (electronic government) has multiple dimensions, and thus various definitions. For example, Ndou (2004) defines e-government as the initiatives of government agencies and departments to use ICT tools and applications, Internet and mobile devices to support good governance, strengthen existing relationships and build new partnerships with various stakeholders. However, according to Schefler and Scharf (2002), e-government could be defined commonly as a form of organization that integrates the interactions and the interrelations between government and citizens, businesses, customers, and public institutions through the application of modern information and communication technologies. The e-government project aims to establish an accessible government where public services are available regardless of place and time.

The opportunities and means provided by ICT and methods of communication, e-mail and the Internet in particular, offer an opportunity to efficiently distribute information to a the actors and stakeholders at minimal cost (UNPAN, 2008). So, governments are at fore front in using technology especially, with the introduction of e-government. E-government is the application of ICT to facilitate service delivery and improving internal processes of government. Nowadays various government bodies at national, state and local levels are integrating e-government strategies in their endeavor to reform public sectors and thus and improve their performance. Hence, e-government represents the introduction of a major wave of technological innovation as well as government modernization which represents a great effort to move forward in the 21st century by enhancing government responsiveness, enabling cost effective government services and making better relationship between citizens and government a reality.

According to Thomas, Victor, Mbarika, Nwogu& Musa (2014), in recent years, the sub Saharan African countries have experienced growth in various dimensions of ICT. They further demonstrate that despite being late starter on the Internet the sub Saharan Africa has undergone continues and rapid growth in Internet connectivity, computer usage, and wireless communication diffusion.

In addition to being a powerful and convenient tool to share information internally, one specific development of e-government is oriented toward online one-stop Government. One-stop government is a concept of e-government that refers to the integration of public services from a customer's (citizens & businesses) point of view. It suggests that customers communicate with authorities through a single point of access using the communication channel of their choice (e.g. citizen center, call center, Internet etc.).

E-government provides a vision and a strategy for addressing these challenges and for creating an environment for the transformation of government activities that improve the value provided to citizens and businesses, reducing operational cost, improving the retention and training of staff and enhancing responsiveness to change, among others (Ouchetto, Hassoumi, Ouchetto, Roudies, 2012). Thus e-government provides a framework for public services which are citizen-focused, accessible and convenient. On the other hand, realizing the vision and objectives of e-government requires some organizational issues to be addressed, such as business process change, alleviating skills shortages and resolving the problems of IT infrastructure in public organizations (Ouchetto, Hassoumi, Ouchetto, Roudies, 2012). Moreover, since leveraging the tacit and explicit knowledge of a public organization can facilitate tremendously the effort towards e-government, knowledge management has the potential to substantially improve the electronic provision of services. Moreover, McAdam and Reid (2000) point out that the public sector operation focused more on social interaction and recognized the need for KM for reducing cost and improving efficiency. Hence, in terms of KM tools, the PA sector was found to be more dependent than the private sector on people-based approaches, such as forums, team works, informal discussion groups, etc (McAdam and Reid, 2000).

Therefore, e-government strategies and projects, if implemented successfully, can create conducive environment for knowledge sharing in public organizations. Indeed, e-government can be considered as additional opportunity for public sector knowledge management.

2.8.4 The Non-rivalry Nature of Public Service Agencies

The relatively lower levels of competition in the public sectors, i.e. unlike private organizations, whose motive is profit making, public sectors are less likely to view other agencies as rivals because generally they worry less than corporations about trade secrets and other vital information being leaked to competitors (Rashman, Withers & Hartley, 2009). Therefore, in

contrast to the private sector, public sector organizations are likely to be willing to share their experience and knowledge, as they are not competing, and they are all serving under the same central management.

However, according to(Unsworth & Axelsson, 2015)the mission focus of non-profits such as government organizations are more likely to provide a shared mindset and commitment to collaboration among all members of the organization when all believe and are dedicated to a common purpose. Thus, it is the belief and dedication that makes the working environment much more supportive for knowledge sharing than in typical profit-focused commercial organizations.

This situation can also be considered as opportunity to develop stronger networks links with peer organizations than their private sector counterparts (Rashman, Withers & Hartley, 2009) and thus enabling knowledge sharing and learning from each other.

In this regard, The Ethiopian cities forum, formerly called Ethiopian cities week, which was established in 2009 with the objective of promoting the urban agenda to the public at large, including urban residents and relevant stakeholders, and create awareness on urban development initiatives (Cities Alliance in Action, 2013). In addition, it serves as a platform for experience sharing and learning among cities to encourage a healthy and competitive atmosphere among Ethiopian urban centers (Cities Alliance in Action, 2013).

2.9 Barriers of Knowledge Sharing in Public Sector

In organizations, whether private or public, there can be various barriers that hinder effective knowledge sharing. These barriers are often categorized as individual, organizational and technological barriers. However, according to mass of literature the individual, organizational and technological barriers to KS are interdependent.

For instance, according to Riege(2005) individual barriers refer to personal barriers such as lack of communication skills, lack of social networks, differences in culture, lack of time, lack of trust, lack of motivation, lack of awareness of the benefit of KS, lack of interaction and fear of not receiving recognition.

Organizational barriers to KS are the contexts of organizational environment that are not conducive to knowledge sharing (Riege, 2005,). At the organizational level several major

organizational barriers to knowledge sharing include unclear/missing integration between KM initiatives into organization's goals, lack of leadership and managerial support, shortage of formal and informal spaces, lack of transparent motivation, rewards and recognition system (Syed-Ikhsan and Rowland, 2004), unsupportive organizational culture, low priority on knowledge retention from experienced staffs, shortage of appropriate infrastructure, deficiency of resources for adequate knowledge sharing practices, competition with business units/functional areas/subsidiaries, restricted communication and knowledge flows (one directional, i.e., top-down knowledge flow), restrictive work environment/layout of work area, hierarchical organization structure and size of business unit (Riege, 2005,).

Among the technology barriers highlighted by Riege (2005) are lack of integration of Information Technology (IT) systems and processes, lack of technical support, lack of maintenance of integrated IT systems, people's reluctance to use IT systems and lack of training for familiarization of IT systems and processes.

With regard to the organizational context of public sectors, there several organizational factors that constrain knowledge sharing. The following factors are among barriers that hinder KM in the public sector:

- The public sector has a rule-based culture that seeks compliance rather than entrepreneurship, innovation and improvement (Taylor and Wright, 2004);
- Public sector institutions are generally characterized as having bureaucratic cultures that do not encourage creativity nor value an individual for their talent or ideas. Decisions are typically top down with no perceived input from the affected staff (Syed-Ikhsan and Rowland, 2004);
- Changes that emanate predominantly from government policies are perceived to be imposed, and consequently received as unnecessary external interference(Taylor and Wright, 2004);
- Due to lack of understanding of information management and limited awareness of its importance in government departments important documents that could inform various processes and decision making are not traceable (Lipchak, 2002);

- In many countries of Africa, access to computer with Internet connection and the skill to use may lack among employees and elected officials of local authorities (ALGP, 2006) make difficult efficient information processing, storage and retrieval and thus knowledge sharing difficult.
- In public sectors since there is a prevalence of strict division of labor, there is no incentive to cause public servants to want to look after co-worker's business (Gau, 2011). This situation creates silo mentality in the work units and makes knowledge sharing in the public sector more difficult than that in the private sector. In connection with this there are also a large number of routines in the public sector that make public servants' interactions very limited and directed.
- In addition, high prevalence of staff turnover, lack of adequate training, and a tendency to maintain the status quo (Mitchell, 2007) further impact and impede knowledge continuity in public service organizations thus exacerbating knowledge sharing problems.

CHAPTER THREE

3.0 Research Methodology

This chapter presents information pertaining to research methodology adopted for the study. It includes the research design, target population, sampling technique, data collection instruments and analysis techniques.

3.1 Description of Study Area

According to the current master plan, the total area of Jimma City is 102 km^2 (10,200 hectares). The climate of the city totally falls under "*WeinaDaga*'' ecological zone receiving moderately heavy rainfall throughout the year with mean annual rainfall of 1450- 1800mm. The temperature in the city is relatively low in the early morning and during the night but high around the noon. It ranges from 12.1^0C to 30^oC with mean daily temperature of 19.5^oC. With the projection of the 2007 census, the population of the city is currently estimated to be 169,446 of which 84,508 are males and 84,938 are females (CSA, 2013). Various forms of Christianity (Orthodox, Protestant and Catholic) and Islam are the commonly practiced religions in the city.

The main economic activities in Jimma City are commerce and small manufacturing enterprises. The commercial orientations of farmers around the city have greatly contributed to urban-rural linkages. The industrial activities in the city are like grinding mills, wood and metal workshops, coffee hullers, brick manufacturing, bakeries and pastries. The formal sector urban employment and economic activities in the town are composed of self employment, public sector employment and private business. Self-employed people draw income from trade and service business activities they operate personally.

According to the Proclamation No. 65/2003 of the Oromia National Regional State, Jimma has been recognized as City Administration and turned to full-fledged autonomous local government responsible for local governance, provision of public services and socio-economic developments. In addition to being zonal capital for Jimma Zone administrative offices, the city serves as a commercial center for the entire Southwest Ethiopia. The highest executive organ of the City Administration is the mayor's committee chaired by the mayor, comprises the deputy mayor and heads of different sectors (offices, agencies, authorities). All the sectors have responsibilities of

implementing the government's policies and are accountable to the mayor and the City Council. The Council is elected legislative body. Since the city was granted local government status by the Proclamation No. 65/1995 of the Regional State, in addition to municipal services such as urban infrastructure, and waste disposal, it is responsible for provisions of health services, primary and secondary education, security services, regulatory and licensing businesses for the residents. Currently, there are 17*kebeles* (the lowest level of administrative structure of Ethiopian government) which are accountable, to the mayor's office and the city council.

3.2 Research Design and Approach

3.2.1 Research Design

The research design used in this research is cross-sectional survey. The rationale for selecting the mentioned design is because, the problems identified and the research questions raised in this study directly interconnect with the theoretical arguments forwarded by scholars in favor of cross-sectional survey method.

Kumar (2007) states that cross-sectional survey research attempts to describe systematically a situation, problem, phenomena program, administrative structure of organization, and the needs of community. In this case, since the research questions involve the "what" and "how" questions, the study employed cross-sectional descriptive design to assess and describe the practice of knowledge sharing in the study area. In addition, cross-sectional survey design is suitable to find out what situations, events, attitudes or opinions are occurring in a population currently (Pinsonneault and Kraemer, 2001).

Therefore, based on the above arguments in order to assess the current status of knowledge sharing practices, barriers and opportunities in the organizations necessitates collecting data related to people's opinion as well as physical observation, the choice of cross-sectional survey design is plausible.

3.2.2 Research Approach

The study employed mixed (both quantitative and qualitative) approaches. The use of both approaches provides better opportunity to look at facts under investigation from different perspectives (Kothari, 2004). Moreover, according to Grossman and McCarthy (2005), both

quantitative and qualitative approaches can be utilized to assess KM within organization or the status of specific KM initiatives.

The purpose of quantitative method is that it allows measurement of perceptions, reactions and attitudes of a large sample. Molina and Cameron (2010), state that a quantitative methodology uses predetermined response categories by means of standardized data collection instruments in order to enable statistical techniques to be used to assist the interpretation of the data and also enhances objectivity of the findings but quantitative method lacks depth.

On the other hand, qualitative data is suitable to provide meaningful insights and perspectives through the eyes of the actors being investigated in such a way that qualitative method produces detail information about a small number of cases, thereby increasing the depth of understanding of the issue being studied but reduces generalizability and objectivity (Molina and Cameron, 2010).

Therefore, for this study, the need for both quantitative and qualitative data is to offset the weaknesses of one method against the strengths of the other. So the use of both approaches in this study is intended to complement each other.

3.3. Population of the Study and Sampling Design

3.3.1 Target Population of the Study

The target population of the study is all employees of the public sectors of Jimma City Administration. Nonaka (1998) asserts that managers can lead the organization to actively and dynamically create knowledge by providing and understanding the knowledge vision of the organization, developing and promoting sharing of knowledge, and creating the time and place to share knowledge.

Nonaka and Takeuchi (1995), Szabó and Csepregi(2015) emphasize that middle managers typically play the role of knowledge-transfer agent in organizations. Other researches on public organizations also suggest that middle managers are well positioned to play a variety of roles in stimulating knowledge acquisition and sharing. Hence, knowledge processes are more related to middle managers as they are the leaders of a working group or task force that mediate the exchange process between top management and support staff.Furthermore, middle managers connect with more people across the organization and are routinely involved in information

transfer and dissemination across organizational boundaries (Richards, 2016). Eaves (2014) also mentions about middle managers that in addition to their role as intra-organizational information conduits, they also carry out a variety of administrative roles such as the coordination of internal group activities and the translation of policies into practice.

In this study, therefore, the target population comprises all the top and middle managers of 25 public organizations (offices, agencies, authorities, enterprises) of Jimma City Administration. According to the prior information obtained from the Public Service and Human resources Development of the City, the middle level managers, in the context of the public organizations of the study area include process owners (equivalent to division heads, human resource heads (where available), planning and monitoring officers, and ethics & reform officers (where available). As per current organizational structure there are 142 middle level managers in the 25 sectors under the City Administration. Whereas, the top managers/leaders of the public organizations, in most cases, are office heads and deputy heads.

3.3.2 Sampling Procedure

For this research, both probability and purposive sampling techniques were used. The sampling method for quantitative data collection is probability sampling which is a combination of stratified sampling and simple random sampling. By taking each organization as stratum the number of potential respondent's (middle managers) of each organization is identified and the number of participants determined proportionally using the sample size formula. Then the actual participant(s) were determined using simple random sampling- specifically the lottery method.

For qualitative data collection, i.e. for semi-structured interview and direct observation, purposive sampling technique was used.

3.3.2.1 Sample Size Determination for Quantitative Data Collection

The sample size is an important feature of any empirical study in which the goal is to make conclusion about a population from the sample. Larger sample sizes generally lead to increased precision when estimating unknown parameters (Kumar, 2004). Sample size calculation is concerned with how much data we require to make correct decision on particular research.

To determine the number of respondents of the questionnaire among the total population of 142 middle managers, Kothari's statistical formula was used.

According to Kothari (2004),

$$n = \frac{z^2 * p * q * N}{E^2 * (N-1) + z^2 * p * q}$$

Where,

N= is the population size

n = required sample size

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

E= 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)

Where q=1-p

Therefore, the sample size (n) for questionnaire respondents would be

$$n = \frac{z^2 pqN}{E^2(N-1) + z^2 pq} = \frac{(1.96)^2(0.5)(0.5)(142)}{(0.05)^2(142-1) + (1.96)^2(0.5)(0.5)} = 103.87 = 104$$

Hence, the sample size for the quantitative data would be 104.

As the proportion of the entire population participated in the questionnaire was 104/142 = 0.73, i.e. approximately, 73% of the population participated selected to respond to the questionnaire.

Based on this, 73% of the middle managers in each sector (stratum) is included as sample to have proportional representation of the sectors. This is indicated in the following table.

3.3.2.2 Sampling Frame and Sample Size for the Study

The following table shows the sampling frame and sample size of questionnaire respondents from each sector.

Serial Number	Name of Organization	Number of middle managers	Sample Size
1	Jimma Municipality	11	8
2	Education Office	9	7
3	Health Office	7	5
4	Water and Sewerage Enterprise	6	4
5	Public Service and Human Resource Development Office	6	4
6	Finance and Economic Cooperation Office	12	9
7	Agency for urban Job Creation and Food Security	8	6
8	Revenues Authority	9	7
9	Transportation Agency	6	4
10	Mayor's Office	4	3
11	Office of the City Council	3	2
12	Office of Administration and Security Affairs	4	3
13	Office of Government Communications Affairs	3	2
14	Office of Construction	4	3
15	Office of Labor and Social Affairs	5	4
16	Office of Culture and Tourism	5	4
17	Office of Youth and Sports Affairs	4	3
18	Office of Women and Child Affairs	5	4
19	Office of Trade and Market Development	9	7
20	Office of Technical and Vocational Education and Training	3	2
21	Office of Cooperatives Promotion	2	1
22	Office of Urban Agriculture	3	2
23	Agency for Registration of Vital Events	3	2
24	Investment Promotion Office	2	1
25	Agency for Urban Land Development and Administration	9	7
Total		**142**	**104**

Table 3.1: Sampling frame and sample size by Organization

3.3.2.2 Sampling for Qualitative Data Collection

For qualitative data collection, i.e. for semi-structured interview and direct observation, purposive sampling technique was used.

Face-to-face semi-structured interviews were held with key informants who are assumed to know the overall operations in the organizations having relatively large numbers of employees and clients. Interviewees were among top managers (preferably office heads or their designated official) of the public sector organizations of Jimma City Administration. Accordingly, three key informants were purposely selected and interviewed. These were Deputy Heads of Municipal Services Office, Revenues Authority and Public Services and HR Development Office.

In addition to face-to-face semi-structured interviews, direct or non-participant observation was carried out in Urban Land Development and Management Agency to have further insights and understanding about the status of KS and some factors affecting knowledge sharing among employees.

3.4 Data Collection Methods

3.4.1 Sources of Data for the Study

Generally, there are two types of data sources-primary and secondary sources of data. Primary data are the data collected by the researcher from original sources. On the other hand, secondary data are the data that are collected and compiled previously by others.

In this regard, this study used both primary data and secondary data sources. Collecting data from different sources is believed to complement the limitation of single source and yields the data that are more valid for the output of the research (Kumar, 2007).

3.4.1.1 Primary data

Several methods are used to collect primary data from primary sources (Kumar, 2007). Primary data are first-hand information collected by the researcher from their original sources through various methods such as observation, interviewing, questionnaires, focus group discussions (Creswell, 2009). Therefore, for the purpose of this research, the primary data were collected using structured questionnaires, semi-structured interview and direct observation.

3.4.1.2 Secondary data

The secondary data that were used for this study include various research articles, proceedings, theses and eBooks were searched from the Internet and reviewed to establish framework that guide the research. Furthermore, related reports and policy documents, statistical data, contents of employees' performance evaluation, etc were consulted.

3.4.2 Instruments for Data Collection

3.4.2.1 Questionnaires

According to Sekeran (n.d), the main advantages of using questionnaire are ease to reach a larger number of respondents and convenience for respondents to fill in compared with lengthy face to face interviews. However, questionnaires may have certain disadvantages such as the possibility that the questions may not be understood by the respondents, the stiffness and inability to adjust the questions to the organizational context and the response rate may be low especially for self administered questionnaires.

Questionnaire is an appropriate tool to collect data from large sample size. Questionnaires can be prepared in close-ended or open-ended format. Close ended questions limit respondents answer by forcing them to choose from pre-existing set of answers, such as yes/no, multiple choice, ranking scale and Likert scale. The open-ended questionnaire format is a questionnaire in which respondents are encouraged to explain their answers to the question by writing sentences or paragraphs (Sekeran, n.d).

In this study the researcher used close-ended questionnaire as main tool for data collection. The questionnaire has two parts: Part One concerned with the background of the respondents, gender, age, education levels, positions, experiences and the like. Part Two of the questionnaire included four sections: Section 1 contains questions on the available current KS practices which are Likert type with three alternative responses 'yes', 'uncertain' or 'no'.having rating scales 3, 2 & 1 respectively. Whereas, section 2 deals with questions that explore the organizational culture. Sections 3 & 4 deal with characteristics of organizational structure and IT use respectively. All the questionnaires were adapted from the literature and most of them were previously used for similar purpose. Questions under sections 2, 3 & 4 were 5-point Likert scale with alternative responses seeking the extent of the respondents' agreement with the statements

(i.e., alternatives consisting of “Strongly Disagree”, “Disagree”, “Undecided”, “Agree” and “Strongly Agree”) having rating scales equivalent to 5, 4, 3, 2 & 1 respectively.

3.4.2.2 Interview Guide

The interview technique always involves oral information, having the advantage of flexibility with enabling to get specific answers to each question (Silvia and Simona, 2013). Along with the use of the questionnaire, it is one of the techniques most often used in qualitative research (Silvia and Simona, 2013) Interview can take place face-to-face or via telephone. In some cases an interview becomes superior to other data-gathering methods (Kumar, 2007), because people are usually more willing to talk than to write.

There are different types of interview formats such as structured, semi-structured or unstructured. In structured interview, the investigator asks a pre-determined set of questions, using the same wording and order of question as specified in the interview list of questions in open ended or close-ended format (Kumar, 2007). Unstructured interviews also known as in-depth interview takes place by loosely developed framework or interview guide with in which the interview is conducted (Kumar, 2007). In this research, semi-structured interviews (using interview guide but allowing flexibility in the wording & order of questions posed, and the lapsed time) were held face-to-face so as to supplement the questionnaire thereby clearing the ambiguities that might have occurred.

3.4.2.3 Observation Checklist

Observation involves systematic, close viewing of actions, the recording of these actions, the analysis and interpretation of what had been seen. For this purpose, the researcher prepared a check list that includes the type of work performed, office design, availability of communication tools and knowledge artifacts in work setting. Therefore, for this study, direct or non-participant observation was carried out in Urban Land Development and Management Agency to have better understanding about the status of KS and factors affecting knowledge sharing among employees.

3.5 Validity and Reliability of the Questionnaire Data

Validity refers to whether the instrument for data collection that measures what the researcher wants to measure (Kumar, 2007). There are different types of validity measurements including, content validity and face validity. Content validity concerns with the ability of the questions to

be measuring the objective of the study and face validity concerns with the appearance of the questionnaire in terms of understandability, readability, consistency of style and formatting, and the clarity of the language used.

In this study for enhancing content validity of questionnaire the researcher, in most cases, attempted to adapt questions that have been used in similar research. The face validity of the questionnaire was checked using pilot-test on 10 respondents that are on similar positions as those in the sample. Based on their feedback, the researcher made some necessary improvements on the wording and style of the questionnaires. Furthermore, the use of more than one method to study the same phenomenon is believed to strengthen the validity of results of this study.

Reliability of measuring instruments refers to the consistency or repeatability of the measure. To determine the internal consistency of the Likert scale items in the questionnaire, as Cronbach's alpha is the most commonly used measure of reliability; the degree of internal consistency was analyzed using Cronbach's alpha from SPSS software. Alpha coefficient ranges in value from 0 to 1. The principle is that the closer the coefficient is to 1, the greater is the internal consistency of the items and more reliable the generated score is. However, it is suggested in literature that the values of Cronbach's alpha above the value of 0.70 is acceptable (Gliem&Gliem, 2003). For this study, the overall Cronbach's alpha value for all the items is found to be 0.766 and none of the items were with alpha value less than 7.0 which is acceptable and this shows that the entire test is reliable.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.766	.766	39

Table 3.2: Cronbach's alpha value for reliability

3.6 Data Analysis and Presentation

In order to reach to the final output and meet the objectives of the study, the collected data should be analyzed.

After all the quantitative data had been collected through questionnaire, each questionnaire is coded with numbers and then the responses of each respondent were encoded into statistical software called Statistical Package for the Social Sciences (SPSS version 20) for analysis. The analysis techniques used for the data in the questionnaires was descriptive statistics-the frequency and percentage deemed to enable answering the research questions and thus to achieve research objectives. The results were presented through counts, tables, graphs, frequencies, percentages as appropriate for ease of understanding and interpretation. During the analysis of the 5-point Likert scale, 'strongly disagree' was represented by 1, 'disagree' by 2, 'undecided' by 3, 'agree' by 4 and 5 representing 'strongly agree' was used. On the other hand, for 3-point Likert scale items, 'yes' was represented by 3, 'uncertain' and 'no' were represented by 2 and 1 respectively.

Regarding the interview data, after conducting each of the semi structured interviews, the researcher transcribed the responses in own words in order to grasp the general perspectives of respondent's answers. According to Creswell (2009) the most important feature of qualitative data analysis its focus on text rather than on numbers. Hence, after transcribing the responses of all interviewees, relevant items from each of the transcripts identified in line with the research questions and answers of the respondents were distinguished into different categories or codes in order to determine differences and consistencies. Then next step was to look up each category separately and to identify patterns or themes so as to find unique and common comments in each category. Finally, the summaries of the themes descriptively narrated in ways that supplement the results of the questionnaire.

Furthermore, for the direct or non-participant observation held, the observation data were analyzed using qualitative methods to produce detailed descriptions of what are observed. To this end, the recorded observations are organized based on their relevance to the research questions. Then narrative description of the summary was provided to supplement results from the analysis of the questionnaire, where needed.

In addition to the above, the study also used document review which involved use of a range of resources supposed to be relevant to the study. Relevant literature from secondary sources such as annual reports, related research articles, policy documents, different organizational charts, statistical data and contents of employees' performance evaluation were reviewed to give shape and guide the study and also to supplement the results. These documents were used as background materials and were also used to confirm impressions gained from the interviews and questionnaire.

3.7 Ethical considerations

In the course of the study, efforts have been made to not harm participants and the society and to make the findings beneficial. Privacy and confidentiality of participants was maintained at all times-starting from data collection through analysis to reporting stages. Even the responses and views of respondents from the sectors involved were not mentioned separately during data analysis and conclusion. All findings were portrayed in a confidential manner so that no personal or identifiable information were recorded or printed in the study. During data collection, the participants also were ensured their anonymity.

.

CHAPTER FOUR

4.0 Result and Discussion

To assess the knowledge sharing practices, barriers and opportunities in Jimma City Administration, questionnaires were distributed to employees in different offices/agencies of the local government. In addition, interviews were also held with members of top management mainly to clear ambiguity during data analysis. Furthermore, physical observation was undertaken to see the settings of the work environment and understand the ways knowledge resources are accessed and the employees interact. The results from the interviews and observation were used to supplement and elaborate the findings of the questionnaires.

From the questionnaires distributed to total of 104 civil servants (process owners/division heads, human resource officers, planning and monitoring officers and ethics and reform officers) working at middle management level in 25 sector offices/agencies of the local government, 94 questionnaires were filled and returned. However, from the returned questionnaires 3 of them were found to be incomplete and hence excluded from analysis. Therefore, the total number of questionnaires used for data analysis was 91, which indicates 87.5% return rate of the distributed questionnaires.

4.1 Demographic Analysis

The first part of the survey is concerned with background of the respondents to understand the employees or respondents who participate in filling out the questionnaire for this research. Respondents are requested to fill their gender, age , their level of education, their total years of experience in civil service, their experience in the sector they are working in and the duration since assuming the present job position in the sector. The profile of questionnaire respondents is presented in table and graph as follows.

Table 4.1: Respondents' Profile

Measures		Frequency	Percentage
Work Position	Process Owner (Division Head) Planning and Monitoring Officer HR Officer/head Ethics & Reform Officer	57 21 13 10	62.6 23.1 14.3 11
	Sub-total	**91**	**100%**
Level of Education	Diploma Bachelor Degree Masters degree	6 68 17	6.6 74.7 18.7
	Sub-total	**91**	**100%**
Gender	Male Female	70 21	76.9 23.1
	Sub-total	**91**	**100%**
Age in Years	23 -30 31 – 40 41 – 50 Above 50	14 36 33 8	15.4 39.6 36.3 8.8
	Sub-total	**91**	**100%**
Years of Experience in Public Service	Less than 3 3 – 10 11-15 Greater than 15	2 12 14 63	2.2 13.2 15.4 69.2
	Sub-total	**91**	**100%**
Years of Experience in the (Current) Sector	Less than 3 3 – 10 11-15 Greater than 15	20 40 23 8	22.0 44.0 25.2 8.8
	Sub-total	**91**	**100%**

As indicated in Table 4.1 above, 62.6% of the respondents composed of process owners (division heads), while 23.1% of the respondents belong to planning and monitoring officers. Human resources officers and ethics and reforms officers are respectively 14.3% and 11%.

The 91 respondents comprised 76.9% males and 23.1% females. Those aged between 23 and 30years were 15.4%, 31 to 40 years of age 39.6%, whose age between 41 to 50 years was 36.3%, and those whose age above 51 were 8.8%. On total years of working experience, the majority of

the respondents (69.2%) had greater than 15 years, 15.4% had between 11 and 15 years, 13.2% had worked between 3 and 10 years and only 2.2% had worked for less than 3 years

Regarding respondents experience in the sector they are presently working, 22% of the respondents had less than 3 years, while 44% and 25% have experiences of between 3 to 10 years and 11 to 15 years respectively. The remaining 8.8% had more than 15 years of experience in the sector they are currently working.

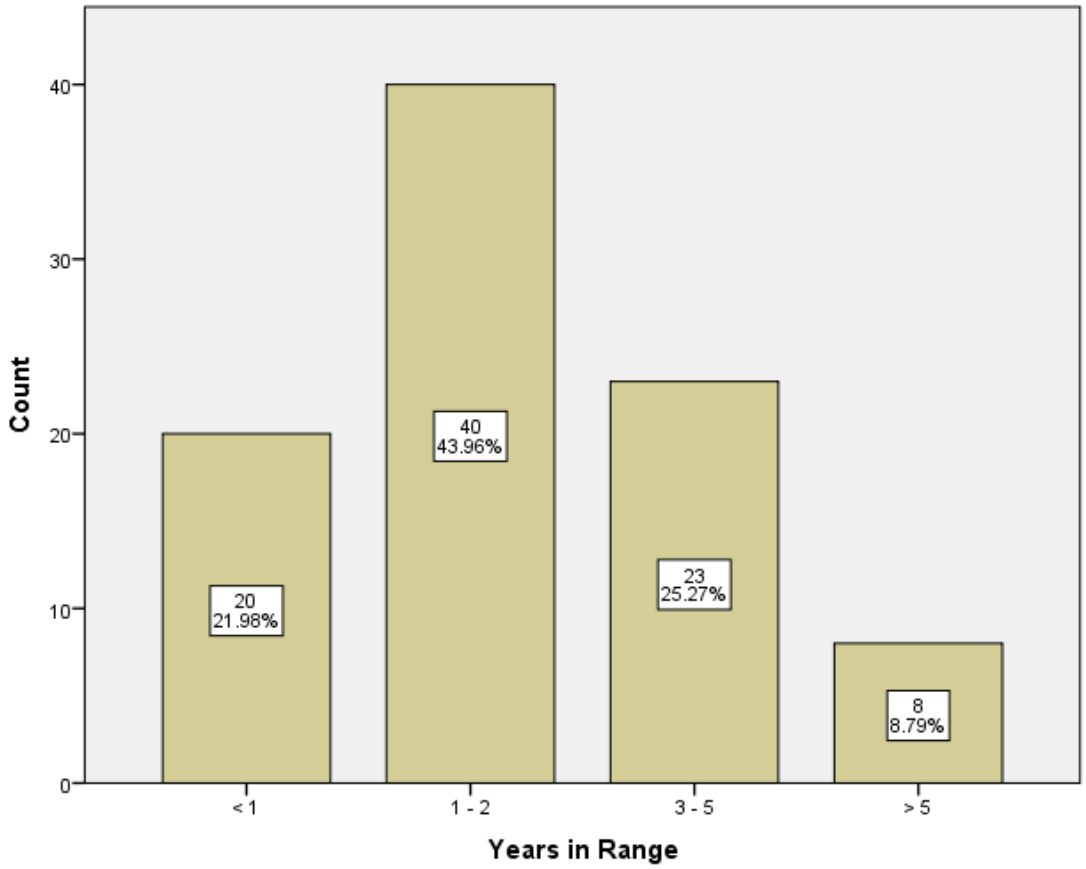

Figure 4.1: Respondents by years of experience at the current job position

As it is depicted in figure4.1, among the 91 respondents, 20 (which is about 22% of the respondents) worked for less than 1 year at the current position, 40 (about 44% of the respondents) worked for only 1 to 2 years, while 23 respondents (25.27%) and 8 respondents (8.8%) had respectively 3 to 5 years and above 5 years work experience at the current position. This shows that the majority (about 65% of the respondents) have less than or equal to 2 years work experience at their present job position. This shows that unless appropriate KS mechanisms

such as exit interview, mentoring and good/best practice database are instituted new incumbents will face difficulty in carrying out their responsibility effectively and efficiently. Consequently the organizations will face problems of operational efficiency due to lack of knowledge continuity which arises from turnover.

As Al-Alawi, Al-Marzooqi and Mohammed(2007), in their study which examined the factors that received strong emphasis in influencing the success of knowledge sharing, showed that employees with a higher level of education and longer work experience are more likely to share their expertise and have positive attitudes toward sharing.

4.2 Knowledge Sharing Practices

Knowledge sharing practices are the formal or informal routines or day-to-day operation used in an organization for the provision of task information, experiences and skills to help others and to collaborate with others to solve problems, develop new ideas, or implement policies and procedures. Knowledge sharing strategy is a mechanism, a method, procedure or process involved within organization to realize knowledge sharing practices.(Abdul Manaf and Marzuki, 2009).Hence to enable effective knowledge sharing practices in an organization, knowledge sharing strategies should be used. Summaries of respondents' replies concerning knowledge sharing practices is presented in table 4.2 below.

Table 4.2: Responses for knowledge sharing practices

No	**Questions**	Yes (in %)	Uncertain (in %)	No (in %)
1	The organization has clearly articulated (i.e. written) information/knowledge sharing strategy in your organization	49.5	18.7	31.9
2	The organization assigns an experienced mentor to coach junior employees	29.7	19.8	50.5
3	Information/knowledge stored in paper format can easily be accessed and shared in the organization	38.5	15.4	46.1
4	Information/knowledge that stored in electronic format can easily be accessed and shared in the organization	52.7	16.1	30.2
5	Periodic staff meetings are held for the purpose of information, knowledge and experience sharing among employees	57.1	13.2	29.7

6	In general, do you believe that staffs understand how their knowledge/information sharing practices contribute to the performance of the organization?	36.3	16.5	47.3
7	Are there formal mechanisms in place to capture experience and knowledge of employees when they leave/ retire from your organization?	20.9	7.7	71.4
8	Are there frequent opportunities for employees to participate on trainings, workshops, conferences and seminars in order to increase their specific abilities?	38.6	8.8	52.6
9	Is it mandatory for staff to pass on to fellow workers and share new knowledge and information after attending seminars, workshops and conferences?	24.2	12.6	63.2
10	Are staff expected to participate in professional associations and other communities of practice related to their fields of expertise?	6.6	25.3	68.1
11	Do information about good work practices, lessons learned, and knowledgeable persons easy to find in your organization?	17.6	16.5	65.9
12	Would you say that the regular activities /tasks that employees perform help them to share experiences/knowledge with each other in your organization?	61.5	12.1	26.4
13	Is knowledge/information sharing a part of employees' performance evaluation?	54.9	11.0	34.1
14	Do employees in your organization exchange knowledge, and experience with employees of other similar organizations?	30.8	25.3	44.0

The first question is concerning the presence of clearly articulated KS strategies. The response as depicted by the above table 4.2 shows that 49.5% of the respondents replied 'yes', while 31.9% replied 'no' and the remaining 18.7% of the questionnaire respondents were not sure whether the strategy is present or not in their organization. That means 50.5% of the respondents replied either as 'no' or unsure of the existence of clearly articulated KS strategy in their organizations. Organizational strategies strongly affect how an organization promotes learning and knowledge sharing, and the building of knowledge assets within the organization (Abdul Manaf and Marzuki, 2009).However, from the interviews held with three top managers, all of them unanimously declared the presence of knowledge sharing strategy which is in the form of work group meetings to be conducted daily towards the end of working hours, albeit the strategy is not comprehensive. The work group/team is a formal structure known as civil service change

army (also called 5 to 1 team structure). It is also mentioned in government circular as an organized platform to create a structured approach to implement, monitor and evaluate the operations at each level where team members build their capacity, evaluate the basic challenges and problems they encounter and solve them through democratic way, measure the performance collectively and individually and identify pioneer performers for reward (Ethiopian Ministry of Civil Service, 2012). In spite of the presence of the government's circular, as mentioned by the officials interviewed as well as from the various official documents, most of the questionnaire respondents seem not to view or perceive the compulsory daily meetings as knowledge sharing platform/activity. This implies sufficient awareness is not created by the management on the purpose and practical significance of the daily staff meetings. As a result, the various reports of the Office of Public Services and HRD and responses of interviewees confirmed, the strategy of daily meetings towards the end of working hour couldn't be effectively implemented and hence couldn't serve the purposes of KS. Sometimes the meetings are held for their own sake so as to comply with official orders rather than to achieve concrete objectives. This intended strategy is clearly a sort of personalization strategy which relies on individuals' interactions and dialogues as a means to share knowledge.

Regarding mentoring of newer employees by experienced ones, the majority (69.3%) of the respondents replied it is not practiced formally or they are not sure of its presence. Only 29.7% of the respondents replied in favor of the presence of mentoring and coaching practice in their offices. In spite of the huge potential of mentoring in making new or junior employees feel loyal and committed to the organization through imparting knowledge and corporate culture (Bencsik, Juhász and Machova, 2014), this practice is very low.

For the question regarding whether paper documents are easily accessed and shared, only 38.5% of the respondents replied positively, whereas 46.1% and 15.4% of the respondents replied with 'no' and uncertain respectively. From this one can see that most of the respondents (65% of them) expressed the difficulty of accessing and sharing paper documents in their offices or couldn't express their opinion confidently around the issue of easy accessibility of documents in their working area. From the physical observation made also the researcher could understand that searching paper files and documents takes a longer time and at times even difficult to locate where about to search working files and documents. Moreover, the people interviewed also

acknowledged the presence of problems in easily accessing hard copy materials in the office, except in some work processes that deal mainly with financial management and contractual dealings which have clear information management policies, guidelines and standards. According to two of the three interviewed officials, such problems mainly attribute to inappropriate classification, indexing and storage of documents due to the employees' lack of skills and experience. The other interviewee also mentioned that the sources of difficulty in searching and accessing documents mainly attribute to lack of enough storage spaces and inadequate mechanism to track movements of files among work units. In addition to being crucial in any organization for easy access to knowledge, proper document management which is fundamental means by which the transparency, accountability and effectiveness of government is demonstrated and measured, remained a neglected area of public sector reform (Lipchak, 2002).

Regarding whether information/knowledge that stored in electronic format can easily be accessed and shared, 52.7% of respondents replied "yes', whereas, 30.2% and 16.1% of the respondents replies as 'no' and 'uncertain' respectively. From this one can see that electronic data and/or information management is not much satisfactory.

Concerning presence of periodic staff meetings for the purpose of information, knowledge and experience sharing among employees, 57.1% of the respondents confirmed the presence whereas, 29.7% denied and the remaining 13.2% were reluctant to confirm or to deny existence of periodic meetings for the purpose of knowledge and experience sharing. The responses from the interviews conducted also indicate that meetings are major knowledge sharing mechanisms. However, two of the three interviewees mentioned that meetings are held mostly to discuss on immediate problems and obstacles of implementation issues rather than to proactively tackle foreseeable strategic problems during planning stage. Moreover, as probed from the interviews, often meetings are called spontaneously without prior notification of agendas to the participants. However, according to Garanina (2008) in order to have focused interactions between people prior notification of agendas is important, This absence of prior notification of agendas coupled with the predominance of top-down flow of information and knowledge (discussed in section 4.3 below) seems to constrain the efficiency of staff meetings to achieve the goal of tacit knowledge sharing and learning from each other.

For the question regarding employees understanding of the contribution of their knowledge sharing practice towards organizational performance, 63.7% 0f the respondents as 'no' or 'uncertain', while only 36.3% replied 'yes'. This implies that most employees are not aware of the importance of KS practices for improving organizational or individual performance. However, according to Wiig (2002) it is when shared in intentional and deliberate way that knowledge contributes to the agency's strategic goals and objectives.

Regarding presence of formal mechanisms to capture experience and knowledge (including tacit and explicit) of employees leaving, the majority (71.4%) of the respondents replied non-existence of such mechanisms in formal ways. The problem concerning the absence of formal mechanisms (such as adequate exit interview) with difficulty to access legacy documents and the majority of incumbents (about 65% of the respondents) having less than or equal to 2 years work experience at their present job position endangers knowledge continuity and ultimately may lead to loss of organizational memory.

On the other hand, concerning presence of frequent opportunities for employees to participate on trainings, workshops, conferences and seminars in order to increase their specific abilities 48.4% of respondents acknowledge presence of such practices, whereas, 42.8% and 8.8% of respondents respectively replied such practices not exist frequently and uncertain for their existence. This shows that participation on such knowledge sharing activities is not as frequent as needed. As learnt from the responses of the interviews internal trainings, workshops and seminars are rarely or not conducted at all unless organized and invited by regional offices or other external stakeholders.

Employees' participation in professional associations and other communities of practice related to their fields of expertise was also uncommon because 68.1% of the respondents out rightly declined the existence of such practices.

Concerning the availability and easy accessibility of information about good work practices, lessons learned, and knowledgeable persons the majority of respondents (65%) responded negatively. This shows that recording, organizing and reuse of experiences& knowledge and thus the possibilities of learning from past practices (including mistakes) is at very low level.

Regarding whether passing on to fellow workers and share new knowledge and information obtained from attending seminars, workshops and conferences, is mandatory or not, the majority of respondents (63.2%) responded ‘no’, while only 24.2% responded ‘yes’, the remaining 12.6% were not sure of the existence of such practices. The direct observation made by the researcher also found out that important regulations and rules that are crucial for guiding day-to-day activities are difficult to locate and apply. This lack of practice of sharing new knowledge and information obtained from workshops and training or the materials to fellow workers can exacerbate problems of locating and using important regulations, rules, procedures and working documents or their interpretations.

On the other hand, regarding whether the regular activities /tasks use to share experiences/knowledge with each other, the majority of respondents (61.5%) replied positively, and the remaining 39.5% responded negatively or not sure whether the daily work practices contributes to their knowledge sharing and learning. Moreover, from the observation made by the researcher the presence of interactions and verbal and non-verbal information/knowledge exchange while on their regular duty but visual aids such as work flow diagrams and indicators of where to go to complete processes are not observable. Moreover, according to the responses from interviews held with the participants in general and with the deputy head of the Office of Public Service and HRD, the current organizational structure, work flows and job responsibilities of most organizations don’t align with the business process re-engineering (BPR) implemented so far. This is mainly, according to them, due to frequent reorganization and restructuring of most agencies that resulted in altering mandates of respective agencies.

With regard to whether knowledge/information sharing being a part of employees' performance evaluation, 54.9% of the respondents replied ‘yes’, while 34,1% and 11% replied ‘no’ and ‘uncertain’ respectively. However, from review of official documents and contents of employee performance, the researcher was able to confirm the presence of explicitly stated statements related to information, knowledge, experience sharing and innovative work methods and achieved results.

Regarding exchanging of knowledge and experience with employees of other similar organizations or knowledge networking, most of the respondents (69.5%) replied negatively or not certain of the existence of such practice. Only 30.5% of the respondents replied positively as

to the existence of such practice. However, from the interviews held with three top managers, they anonymously mentioned the existence of various knowledge networking efforts either mediated by Ethiopian City Forum (parastatal organization that serves as a platform for sharing and expanding good/best practices in urban development) or coordinated by The Urban Development and Housing Bureau of The Oromia National Regional state. Although not frequent, there are also bilateral initiatives between peer cities to exchange experiences, good practices and knowledge sharing. As mentioned in the interview with top managers, the problem around such knowledge networking is not lack of opportunities, but that the problems of properly documenting of own organization's experiences and good practices and that gained from such platforms so that the documented knowledge be accessible whenever needed instead of reinventing the wheel. The interview further disclosed the very concept of KM is not well known in the civil service system. KS also is not perceived fully but simply as equivalent to orientation on new concept and indoctrination. In addition, research findings by academicians or practitioners related to the activities of the local government are rarely presented to the management and/or employees for discussion and used to inform policies and practices.

4.3 Organizational Culture

According to Baldini(2005), organizational culture refers to underlying beliefs, values, and assumptions held by managers and employees and the practices and behaviors that reinforce them. It greatly influences how organizational members act. Organizational culture is manifested as characteristics that include innovation, outcome orientation, people orientation and team orientation(Husain, 2015). Other indicators of organizational culture are issues such as leadership style, communication pattern, decision making style, use of information and use of ICT for information sharing, status classification and privilege, performance standard and expectation(Ackerman, 2010).

According to Muciek and Lutek (2013) Cultural elements of an organization that are supportive to knowledge management include proactive goals aiming at change of environment, a strong team culture, favorable for ideas exchange, effective leadership support, openness and honesty, trust, need for creativity and general belief in the value of knowledge & learning.

Table 4.3 Responses fororganizational culture

No	Statements	Strongly Disagree(in	Disagree (in %)	Undecided (in %)	Agree (in %)	Strongly Agree (in %)
1	Employees of my organization are eager and receptive to new ideas and concepts	8.8	33.0	17.6	33.0	7.7
2	Employees of my organization are motivated to express their opinions freely.	7.7	48.4	6.6	33.0	4.4
3	There is reward and incentive system for information/knowledge sharing and reuse in my organization.	46.2	30.8	9.9	13.2	0
4	The management of my organization encourages knowledge sharing in action, not only in words.	11.0	33.0	9.9	41.8	4.4
5	Knowledge sharing is seen as strength and knowledge hoarding (hiding) as weakness in my organization.	3.3	28.6	25.3	40.7	2.2
6	In my organization people at all levels recognize knowledge as a key resource.	14.3	42.9	11.0	30.8	1.1
7	In my organization, a climate of trust is predominant among employees as well as between employees and the management.	4.4	28.6	12.1	52.8	2.2
8	The overall vision and mission of my organization are clearly stated and communicated by the leaders to the employees.	4.4	45.1	11.0	33.0	6.6
9	Communication in this organization is always two-directional in which knowledge/ information freely flows from sub-ordinates to the top and from top down to the sub-ordinates.	5.5	51.6	4.4	38.5	0
10	Working in teams is more preferred than individual performance in my organization.	0	49.5	11.0	38.5	1.1
11	There is a culture of effectively using the available technologies to facilitate knowledge sharing in my organization.	1.1	50.5	12.1	36.3	0
12	The employees in my organization are highly committed to their work.	5.5	40.7	19.8	31.9	2.2
13	Overall, my organization has a culture conducive to promote knowledge and information sharing.	6.6	52.7	12.1	28.6	0

As can be seen from table 4.3, the first question is regarding the employees' willingness to receive new ideas and concepts. The response shows that 37.7% agree or strongly agree, while 41.7% disagree or strongly disagree to the statement. Still the remaining 17.6% of respondents are reluctant either to agree or disagree. From this, one can see that the majority of the respondents (59.3%) altogether don't agree with employees' eagerness to new ideas and concepts.

Concerning whether employees motivated to express their opinions freely, 33% of respondents agree and 4.4% strongly agree. While 48.4% and 7.7% respectively disagree and strongly disagree. The remaining 8.8% were undecided to express extent of their agreement. From this we can see that 64.9% of the respondents feel that the employees are not motivated to express their opinion freely.

The next question posed was about the presence reward and incentive system for information/knowledge sharing and reuse in their respective organizations. The responses show that 77% of the respondents disagree or strongly disagree; while only 13.2% agree about the presence of such system and the remaining 8.8% neither agree nor disagree with the existence of reward and incentive for IKS.

With respect to whether the management of their respective organizations encourages knowledge sharing in action, not only in words, 46.1% of the respondents expressed their agreement; while 44% disagree to the issue. Still other respondents (9.9%) were neither agree nor disagree. From this one can see that since majority of the respondents (about 54%) couldn't agree with the statement, the managements' practical support and encouragement towards KS is perceived to be low.

Regarding whether the employees consider knowledge sharing as strength and knowledge hoarding (hiding) as weakness, 42.9% of respondents agree or strongly agree; while 31.9% of the respondents disagree or strongly disagree. The remaining 25.3% of the respondents couldn't determine either to agree or disagree. This shows that the issue of knowledge hoarding is not a serious problem, of course, if encouraged and motivated effectively.

As to whether people at all levels of their organizations recognize knowledge as a key resource, 57.2% of the respondents disagree or strongly disagree; while 31.9% agree and 11% of respondents were reluctant to agree or disagree but in between. From this the majority of the respondents (68.2%) feel that knowledge is not accorded due value as a key resource.

Concerning issue of trust among employees as well as between employees and the management, 57.2% of respondents agree or strongly agree. However, 33% of the respondents disagree or strongly with the statement and the remaining 12.1% of respondents neither agreed nor disagreed with any degree. This may show that trust is not serious problem.

With regard to the adequacy and clarity of statement and communication of the overall organizational vision and mission of to the employees by the leaders, 36.5% of the respondents expressed their opinion in agreement or strong agreement; while 49.5% of respondents disagree or strongly disagree and 11% of respondents hesitant to agree or disagree. This indicates that inadequacy of clarity and communication of organizational vision and mission predominate in the organizations.

Regarding flow of communication as mostly one-directional being from the top management down to the sub-ordinates, 57.1% of respondents agree or strongly agree, 38.5% disagree or strongly disagree, and the remaining 4.4% of respondents couldn't decide either to agree or disagree. From this one can see that one-directional, top-down flow of communication, is prevalent.

With respect to preference of working in teams to individual performance, 39.5% of respondents replied positively; while 49.5% of respondents negatively and 11% couldn't decide their opinion. From this we can see that the culture of working in teams is perceived to be lacking in the organizations by majority of the respondents.

Concerning a culture of effective use of the available technologies to facilitate knowledge sharing, 51.6% of respondents disagreed, 36.3% expressed their agreement and 12.1% of the respondents were hesitant to agree or disagree with the presence of such culture. Moreover, from the interviews held with three top managers all of them emphasized the intensive use of especially mobile technology (voice and short message services) being instrumental in communicating issues in day-to-day work activities. Similarly, the direct observation carried out by the researcher and interview responses confirm the presence of ICT help desk in some of the bigger offices such as Land Development and Management Agency, Revenues Authority and Office for Economic Development and Cooperation. For other agencies that don't have ICT help desk of their own, a team of experts from the Public Service and Human Development Office provide trouble shooting services whenever ICT problems encounter them. Therefore, the culture of using the available technology is showing a tendency of being improved from time to time as skills to use technology and IT support improve continuously.

Finally, for the question on the presence of a culture intended to promote knowledge and information sharing, the respondents' responses were only 28.6% of the respondents agree; while 59.3% of the respondents disagree or strongly disagree and 12.1% of respondents couldn't decide whether the organizational culture is conducive for information/knowledge sharing or not.

4.4 Organizational Structure

According to Al-Alawi, Marzooqi and Mohammed (2007), organizational structure is the power and responsibility structure formed in the managing process. An effective organizational structure facilitates working relationships between various entities in the organization allowing for the application of individual skills to enable high flexibility and apply creativity. Thereby improves the working efficiency within the organizational units.

Gold, Malhotra, & Segars (2001) argue that a non-hierarchical, team-based, self-organizing (flexible) organizational structure, that help achieve participative decision-making process by facilitating ease of information flow across functional teams contribute positively to support knowledge sharing. Such organizational creates greater flexibility and openness, which is conducive for organizational socialization.

Table 4.4 Responses for organizational structure

No	Statements	Strongly Disagree (in %)	Disagree (in %)	Undecided (in %)	Agree (in %)	Strongly Agree (in %)
1	There are many activities that are not covered by formal procedures in my organization.	5.5	31.9	7.7	53.8	1.1
2	In my organization, employees are encouraged to make decision regarding their work, without approval of the leader.	1.1	44.0	15.4	39.6	0
3	Rules and procedures do NOT create difficulty to use new ideas to handle cases in organization.	1.1	35.2	18.7	41.8	3.3
4	In my organization, there is a participative goal setting, measurement and feedback.	6.6	45.1	12.1	33.0	3.3
5	There are enough locations (hall) within the office where staff can socialize and exchange knowledge.	3.3	52.7	18.7	24.2	1.1
6	Employees believe that they are promoted to a higher grade not by years of work but by their competencies and performance.	7.7	39.6	9.9	39.6	3.3

The first question of this section was concerning the presence of many activities that are not covered by formal procedures. The responses to the question were 37.4% of the respondents expressed their agreement, while 54.9% of the respondents disagree or strongly disagree and 7.7% of respondents couldn't decide their agreement or disagreement with the presence of activities that are not covered by formal procedures. From this one can see that there are many bureaucratic and formal procedures which constrain creativity and experimentation thus hindering knowledge sharing, creation and application.

Regarding employees' encouragement to make decision regarding their work without approval of the leader, 39.6% of respondents replied positively while 45.1% of respondents disagree or strongly disagree and 15.4% of respondents had reservations either to agree or disagree to the issue. Since most of the respondents (60.4%), couldn't agree to the presence of encouragement. From this one can say that decision making is a realm preserved for top leaders indicating centralization of decision making power in the sectors.

With respect to whether rules and procedures don't constrain to use new ideas to handle cases in their organization, 36.3% of respondents disagreed or strongly disagreed, 45.1% of respondents agreed or strongly agreed and the remaining 18.7% of respondents were not sure whether rules and procedures make it difficult or not, to use new ideas to handle cases in their organization.

Concerning presence of participative goal setting, measurement and feedback, 36.3% of respondents replied with agreement or strong agreement; while %51.7 of respondents replied their disagreement or strong disagreement and 12.1% of respondents have mild attitude towards the existence of participative goal setting, measurement and feedback in their organizations. From this it can be said that the level of participative goal setting, measurement and feedback is low. Although additional information from the interviews held with members of top management reveals the presence of staff involvement via periodic meetings, the predominance of one-directional flow of communication (discussed under section 4.3) makes its effectiveness questionable.

As to the availability of enough locations (hall) within the office where staff can socialize and exchange knowledge, only 25.3% of respondents expressed their agreement to the availability, while 56% of respondents declined availability of such facility and 18.7% of respondents were

hesitant to agree or to disagree. From these and the physical observations made by the researcher there are no enough locations (hall) within in the compound the offices where staff can socialize and exchange knowledge informally.

Regarding whether employees believe promotion to a higher grade is not by years of work but by their competencies and performance, 42.9% of respondents expressed their agreement or strong agreement, 47.3% of respondents are in favor of disagreement or strong disagreement and 9.9% of respondents were neutral. From this we can conclude that the majority (58.2%) believe promotion to a higher grade is by years of work and other considerations, not by competencies and performance.

4.5 Availability and Use of ICT

According to Komanyane (2010) information technology enables rapid search, access and retrieval of information and knowledge, and can support teamwork and communication between organizational members. Therefore access to IT infrastructure, IT know-how and IT usage are crucial for effective KS.

Table 4.5 Responses for availability and use of ICT

No	Statements	Strongly Disagree (in %)	Disagree (in %)	Undecided (in %)	Agree (in %)	Strongly Agree (in %)
1	Most employees in my organization have access to computer.	4.4	45.1	1.1	35.2	14.3
2	Most employees in my organization have skills of computer use (including e-mail and Internet browsing).	2.2	41.8	12.1	41.8	2.2
3	My organization has e-mail account through which reports and information/knowledge can be exchanged.	9.9	45.1	11.0	31.8	2.2
4	My organization has social media such as Facebook account through which its activities are publicized and comments are received from clients.	12.1	47.3	6.6	28.6	5.5
5	My organization has broadband Internet connectivity.	12.1	47.3	6.6	29.7	4.4
6	My organization uses Database/other electronic data management systems	2.2	65.9	5.5	22.0	4.4

Regarding access to computer by most employees, 49.5% of respondents replied as most employees have access to computer in office, and equal percentage of respondents (i.e., 49.5%) expressed their view as most employees don't have access. However with regard to employee's access to computer, the responses exhibit the highest standard deviation (1.248). This variation may attribute to differences in government's priority areas of computerization from sector to sector.

From the direct observation made in one of the sectors also the researcher came to understand that a good number of employees (especially those involved with field works) don't have computers and some of them even don't have tables and drawers to keep working documents. However, the researcher could witness that almost all of the staff have smart phones which can be used to communicate with peers, clients and their network of family and friends through voice calls, short messaging services or social media applications. The presence of knowledge artifacts such as blue prints of physical development plans, site plans, memos, digital surveying equipment GIS, fax machine, photo copy machine, etc were observed to be used by concerned employees in the Agency for Urban Land Development and Administration, where the researcher conducted direct observation.

Concerning employees' skills of computer use (including e-mail and Internet browsing), 44% of respondents agreed or strongly agreed to the presence of such skills, while 44% of respondents disagreed, the remaining 12% of respondents couldn't decide whether to agree or disagree with the statement. From this, we can see that currently the level of computer literacy among the civil servants of the local government is low. The researcher also could observe the availability of computer training center within the Public Service and Human Development Office of the City Administration. The center is established with the aim to provide training, for the local government employees, free of charge during working hours. Accordingly, the center gives trainings on basic computer skills such as MS Windows, MS Word, MS Excel, Internet, etc for employees based on the demand of various sectors. Moreover, the interview held with Deputy Head of Public Service and Human Development Office depicted that the training provided for employees of the city administration is not only MS applications but also includes basic computer maintenance and troubleshooting skills depending on the requests made from sectors.

Regarding existence of e-mail account through which organizations' reports and information/knowledge can be exchanged, only 34% of respondents agreed or strongly agreed, while 55% of them disagreed and the remaining 11% couldn't decide on the presence of e-mail account in their organization. From this we can see that the usage of e-mail services is very low in the city administration.

With respect to availability of social media account such as Facebook and using for publicizing services and activities and also for receiving comments from clients, 65.9% of respondents replied with disagreement or strong disagreement to the statement. Only 19.8% of respondents agreed or strongly agreed with their organization's use of social media; while the remaining 14.3% of the respondents were not sure about the presence of social media account and use in their organization. This depicts that the use of social media as organizational knowledge sharing platform is very low. However, as could be learnt from the interview made, a member of top management disclosed that the government's strategy encourages public offices to use different mechanisms including social media to solicit perceptions and comments of service users. It was also learnt that most employees have social media accounts and are active in sharing knowledge within their networks using personal smart phones.

Regarding availability of broadband Internet connectivity in their work area, 34.1% respondents expressed their agreement with the statement; while 59.4% of respondents disagreed and 6.6% of the respondents couldn't decide either to agree or disagree. Although this data shows low coverage of broadband Internet connectivity at present, the interview conducted with senior management of the Office of Public Services and Human Development of the City Administration revealed that there is a plan to interconnect step-by-step major business processes of all sectors/offices with local area network in the near future as per the Ethiopian government's e-government development plan.

Concerning the usage of Database/other electronic data management systems in public sectors of the city administration, 58.1% of the respondents replied negatively, 5.5% of respondents were hesitant to agree or disagree while only 26.4% of respondents confirmed the use of database/other electronic data management systems in their sector. From this we can conclude that the use of database and other data management systems is very low. However, from the interview with senior management members (especially with Deputy Head of Public Service and

Human Development Office) revealed that there is great interest and commitment from government, as part of an ongoing public service reform to digitize major business processes by the year 2020. The interview also revealed that there is e-government strategy to automate business processes of all agencies step by step. According to the informant, the sectors of priority for automation include Revenues Authority, Office of Finance and Economic Cooperation, Land Development and Management Agency and Transport Authority. Additionally, from the interview made with Deputy Head of Public Service and Human Development Office, the researcher was also informed that, the ICT Development main job process of the office in cooperation with Government Communications Office of the city, there is a plan to launch a website which is currently under construction. According to this information, the website will serve as a city-wide informational portal to provide information to the public about the major services delivered by concerned agencies of the city administration. In addition to providing basic information on the City administration's services, it was disclosed that, the website will publicize timely activities, future development plans and will also serve as a platform for briefing major local issues to the public and receiving comments, opinions and suggestions from the public. Furthermore, from the observation made in the Agency for Land Development and Management, it was learnt that the work of automation of urban land management information system with electronic database using Geographic Information System (GIS) technology and Microsoft Access, under the name-cadastral project, is underway. The cadastral project was started a year ago as pilot project to automate land and property data from selected *kebeles* of the city, expected to expand to all other areas of the City, according to the informants.

4.7 Barriers to Knowledge Sharing

From the above data analyses and discussions, the following major barriers/challenges of knowledge sharing are identified.

- The low level of awareness on importance & contribution of KS to individual and organizational performance among the management as well as the employees;
- There are serious problems around locating, acquiring, sharing and reusing information and knowledge
- The lack of comprehensive strategy and procedures for KS. As a result, various mechanisms of KS such as mentoring or coaching of newer or junior employees by experienced ones and capturing the knowledge of employees departing the organization

is not practiced adequately. Moreover, the existing knowledge sharing strategy, if any, is not well communicated to employees and, as a result the strategy is little adopted and owned by employees;

- Although staff meetings are held frequently, absence of prior notification of agendas with the predominance of top-down flow of information and knowledge (discussed in section 4.3 below) and poor documenting practices, seem to constrain the efficiency of staff meetings to achieve the goal of tacit knowledge sharing, knowledge integration and learning from each other.

- The rare opportunities for employees to participate on internal or external trainings, workshops, conferences and seminars. Moreover, no formal means to transfer the knowledge gained from trainings, seminars, workshops and conferences (if any) to fellow workers.

- Low level of empowerment and encouragement of employees for evidence-based decision making;

- The use of IT for knowledge management in general and knowledge sharing in particular is at low stage.

- The employees' motivation to receive new ideas and also to freely express their views and opinion is not adequate.

- Recognition of knowledge as key resource, reward and incentive system to encourage information/knowledge management, sharing and reuse is at lower stage.

- The inadequate communication of and clarity of organizational vision and mission to employees.

4.7 Opportunities to be seized

- The allocated working time for daily team meetings can be used with some flexibility for information management/knowledge documenting, to exchange experiences and learn skills from one another. Hence if used willingly with aim of achieving organizational vision and mission, it can facilitate KS and organizational learning thereby to improve public service delivery.
- There are knowledge networking opportunities with peer cities either with the mediation of the Ethiopian Cities Forum and regional urban development and housing bureau or

directly through bilateral experience sharing with peer cities across the regional state or the country.

- In addition to the expanding broadband Internet service, there is possibility of using the widely accessible mobile technology for knowledge sharing including for email, social networking, etc;
- Possibility of partnering with Jimma University on research and development of innovative service delivery and appropriate technology for infrastructural development, waste disposal, and asset management systems tailored to local realities, etc.
- The majority of the work forces in the local government are well qualified professionals who command various areas of knowledge and practice in public administration. Therefore, if leaders create conducive environment that facilitates communications in all directions/levels, government policies and strategies can be implemented more effectively and efficiently. Moreover, in case the policy-practice incompatibility might occur, if proper KSP implemented can enable to detect and advice policy makers for correction at an early state.
- The formal organizational structures of most agencies have nowadays flatter hierarchies with small units that are suitable for formation of cross-functional and person-to person interaction among employees. So public sector organizations should capitalize on the benefits of decentralized structures that can allow for more participation and knowledge sharing.

CHAPTER FIVE

5.0 Conclusion and Recommendations

This research was conducted in Jimma City Administration of Oromia regional state; to assess the current status of knowledge sharing practices identify main challenges that hinder effective knowledge sharing and also the opportunities to be seized. Accordingly, this chapter gives concluding points and recommendations based on the analysis conducted and discussions made in the previous chapter.

5.1 Conclusion

Knowledge sharing is practiced in the public sectors of Jimma City Administration mostly in the forms-employees' personal interaction and intermittent meetings for the sake of seeking immediate solutions, when problems encounter implementing timely tasks. The knowledge shared is more of tacit in nature rather than being explicit knowledge which indicates the level of knowledge codification is inadequate.

Mechanisms of KS such as mentoring, document accessibility, capturing experience& knowledge of the employee leaving the organization, opportunities to participate on trainings, workshops, conferences and benchmarking & knowledge networking with other organizations are rare.

The organizational culture in the local government organizations is characterized by lack of reward and incentive system, one-directional top-down flow of knowledge, poor information management, inadequate clarity, communication & internalization of organizational vision and mission and lack of valuing and recognizing knowledge as a key resource. However, deliberate knowledge hoarding for the sake of internal competition or personal power and mistrust among the work force are not manifested significantly. Therefore, most of the existing organizational cultural attributes are not conducive for knowledge sharing and learning.

With regard to organizational structure, formal structures of the organizations are more of flat structure with few hierarchies and small unit seem favorable for KS. However, lack of transparent promotion

and recognition systems and inadequacy of formal and informal space constrains socialization and the exchanging of ideas.

Regarding the availability and use of IT, in spite of disparity among the public sectors, in general the level of computer access, skills to use computer, broad band connectivity, and e-mail and social media usage for government task is at lower level. However, there is wide accessibility of mobile technology.

The major barriers in effecting good knowledge management and sharing are mostly cultural ones—the lack of leadership support, organizational incentives and encouraging everyday behaviors that support the capture, codification, and sharing and free flow of knowledge, low awareness on organizational and personal benefits of KS. Furthermore, due to the lack of appropriate knowledge management system, important documents such as regulations, policies and manuals that are crucial for guiding day-to-day activities are difficult to locate and be used by employees. Other barriers include rare opportunities for employees to participate on internal or external trainings, workshops and seminars.

The opportunities that the public sector to capitalize on were also identified. These include civil service reform that comprise such reform tools as strategic planning, business process re-engineering & usage of BSC for performance measurement; well educated HR, flatter organizational structure, access to mobile technology and allocation of time for employees to reflect on day-to-day work.

5.2 Recommendations

Based on the findings of the study, the following recommendations were made.

- Designing and adopting comprehensive KS policy, strategy and standards that incorporate a wide range of knowledge sharing practices such as documentation, mentoring of newly assigned personnel, conducting formal exit interviews for employees departing the organization, benchmarking & knowledge networks with peer organizations, training, communities of practice, etc.
- Establishing posts responsible to co-ordinate knowledge management activities, to raise KM awareness and capacity, and assist in designing& monitor KM strategies within the City's Public Service and HRD Office at department level and also in all other sectors to designate personnel(s) responsible for coordination of KM;
- Change the mindset of employees on the importance of KM by creating awareness through linking knowledge to organizational vision, objectives and through encouraging, incentives, trainings, workshops, seminars and conferences.
- Since leaders have a significant impact on creating conducive environment for knowledge sharing and learning (Anderson and Ackerman, 2010) leadership development is important in the 'why' of KM is crucial;
- Identifying skill gaps in computer use and other IM related issues undertake need-based training on areas of interest according to the context of specific sector;
- Establish Knowledge Management Systems that enable staff to efficiently find and access knowledge held by their organization. At the beginning, this can be done by incorporating e-library and other administrative information in to the City Administration's website, reportedly under construction. So that the e-library enables employees have easy access to a number of important documents including (but not limited to) relevant policies, legislations and operational manuals.
- Finally, the researcher doesn't have belief that this research can reveal complete picture of the knowledge sharing practices, opportunities and barriers in the study area. Hence, strongly recommends further study on similar topic, incorporating other KS factors related to individual and knowledge level knowledge, incorporating the views of lower or operational level employees, and sub-local level (*kebele*) administrations.

References

Abay, A. (2012).Promoting and strengthening professionalism in the civil service: The Ethiopian case, Ministry of Civil Service, Addis Ababa, Ethiopia.

Abdullah and Date, H. (2009). Public Sector Knowledge Management: A Generic Framework. Journal of Knowledge Management, Vol. 3 No. 1

Abdul Manaf, H. and Marzuki, N. (2009). The Success of Malaysian Local Authorities: The Roles of Personality and Sharing Tacit Knowledge, International Conference on Administrative Development, Kingdom of Saudi Arabia, Riyadh.

AGIMO (2004). Knowledge Management: Better Practice Checklists.

Alavi, M. & Leidner, D.E. (2001). Review: knowledge management and knowledge management systems: conceptual foundations and research issues. *MIS Quarterly*, vol. 25, p. 107-136.

Al-Alawi, A.I., Al-Marzooqi, N.Y. and Mohammed, Y.F.(2007). Organizational culture and Knowledge sharing: critical success factors'', Journal of Knowledge Management, Vol.11, No. 2, pp. 22-42.

ALGP (2006).Knowledge Management: A Guide for Local Government Associations.

Al Mehairi, H. (2016). Understanding Organizational Culture for Effective Knowledge Sharing Behaviors in the Workplace.

Al-Qdah and Salim (2014). A Conceptual Framework for Managing Tacit Knowledge throughICT Perspective.

Amayah, A.T. (2013). Determinants of knowledge sharing in a public sector organization, Journal of Knowledge Management, Vol. 17, No 3, 454–471.

Ayalew, H. (2014). Knowledge Management Practices in Development and Humanitarian Aid Organizations in Ethiopia, Submitted to International Knowledge Exchange Conference.

Baldini, K. (2005). Human Resources Policies and Practices, Knowledge Sharing and Institutional Learning and Change.

Bartol, K.M. and Srivastava, A. (2002). ''Encouraging knowledge sharing: the role of organizational rewardsystems'',Journal of Leadership and Organizational Studies, Vol. 9 No. 1.

Bencsik, A., Juhász T. and Machova, R. (2014). Mentoring Practice on Behalf of Knowledge Sharing in the light of Education, Acta Polytechnica Hungarica Vol. 11, No.9.

Bhattacharya and Chaudhury.(2004). Knowledge Management and its Utilisation : an Overview.

Bock, G. and Kim, Y. (2002). Breaking the myths of rewards: an exploratory study of attitudes about knowledge sharing, Information Resources Management Journal, Vol. 15 No. 2.

Cabrera, E. F., & Cabrera, A. (2005). Fostering Knowledge Sharing Trough People Management Practices. International Journal of Human Resource Management, 16(5), 720-736.

Central Statistical Agency of Ethiopia (2013). Population Projection of Ethiopia for All Regions At Wereda Level from 2014 – 2017.

Chen, C., & Huang, J. (2007). How Organizational Climate and Structure Affect Knowledge Management — The Social Interaction Perspective. International Journal of Information Management, 27, 104-118. doi: 10.1016/j.ijinfomgt.2006.11.001.

Chow, W. and Chan, L. (2008). Social Network, Social Trust and Shared Goals in Organizational Knowledge Sharing, Information and Management, Vol. 45, No. 7, pp. 458-465.

Cities Alliance in Action (2013).Ethiopian Cities Network Fosters Peer-to-Peer Learning. Accessed on 13/12/2015

Cong, X &Pandya, P. V. (2003).Issues of Knowledge Management in the public sector. Electronic journal of knowledge management, 1(2): 25-33.

Costantinos, B. (2014). Public Sector Capacity Building Program of Ethiopia.

Cruywagen, M. Swartand J. and Gevers, W. (2008). One Size Does Not Fit All – Towards a Typology of Knowledge Centric Organizations, Electronic Journal of Knowledge Management Volume 6 Issue 2 2008 Practice (e-journal). Paper 1238. http://digitalcommons. unl.edu/libphilprac/1238.

Creswell, J. (2009). Research design: Quantitative, qualitative and mixed approaches. (2nd ed.). Los Angeles: Sage Publications.

Cyr, S. and Choo C. (2010). The individual and social dynamics of knowledge sharing: an exploratory Study.

Cummings, J. (2004). Knowledge Sharing: A Review of the Literature, The World Bank Washington, D.C.

Dalkir, K. (2005). Knowledge Management in Theory and Practice.Oxford: Elsevier Butterworth–Heinemann publications.

Davenport, T. H., &Prusak, L. (1998). Working knowledge: How organizations manage what they know.

Boston, MA: Harvard Business School Press.

Dawson, C.(2002) Practical Research Methods,New Delhi, UBS Publishers' and Distributors.

De Long, D. (1997). Building the Knowledge-Based Organization: How Culture Drives Knowledge Behaviors, Working Paper.

Debela, T.(2009).Business process reengineering in Ethiopian public organizations: the relationship between theory and practice, JBAS Vol.1 No.2, 20-59.

Duressa, Z.andAsfaw, M. (2014).Transformational leadership and its Applications int he public service organizations of Ethiopia, International Affairs and Global Strategy , Vol.23, 2014.

Eaves, S. (2014).Middle Management Knowledge by Possession and Position: A Panoptic Examination of Individual Knowledge Sharing Influences The Electronic Journal of Knowledge Management Volume12 Issue1, pp67-82.

Evans M. (2012).Knowledge Sharing: An empirical study of the role of trust and other social- cognitive factors in an organizational setting, PhD Thesis, Faculty of Information University of Toronto.

Evans, N and Price, J. (2012). Barriers to the Effective Deployment of Information Assets: An Executive Management Perspective. Interdisciplinary Journal of Information, Knowledge, and Management Volume 7

Fotache, G. (2013) Comparative Study Regarding Information Management and Knowledge Management. Journal of Economy Transdisciplinarity Cognition Volume 16, Issue 2,63-70.

Fresno L. and Savolainen, T. (2014). Working Meetings: A Tool for Building or Destroying Trust in knowledge Creation and Sharing EJKM-volume-12-issue-2

Garanina O. (2014).The role of HRM in intra-organisational knowledge sharing Master Thesis in Strategic HRM and Labour Relations.

Garvin, D.,Edmondson, A. and Gino, F. (2008). Is Yours a Learning Organization? Harvard Business Review

Gilson, C., Dunleavy, P. &Tinkler, J. (2009) Organizational Learning in Government Sector Organizations: Literature Review

Goh, S. C. (2002). Managing effective knowledge transfer: an integrative framework and some practice implications. Journal of knowledge management, 6, 23-30.doi: 10.1108/13673270210417664.

Gregory, S. Richards and L.Duxbury (2016).Work-Group Knowledge Acquisition in Knowledge Intensive Public-Sector Organizations: An Exploratory Study, Journal of Public Administration Research and Theory Advance Access.

Grossman, M. and McCarthy R. (2005). Qualitative Approaches to Knowledge Management Assessment

Hackett, B. (2002). Beyond Knowledge Management: New Ways to Work and Learn.

Hansen, M. (1999). The search-transfer problem: The role of weak ties in sharing knowledge across organizational subunits. Administrative Science Quarterly, 44(1): 83-111.

Hendriks, P. (1999). Why Share Knowledge? The Influence of ICT on the Motivation for Knowledge Sharing, Knowledge and Process Management Volume 6 Number 2.

Hislop, D. (2003). Linking human resource management and knowledge management via commitment: A review and research agenda. Employee Relations, 25(1/2), 182-202.

Ho, H. and Madden-Hallett, H.(2011). Knowledge Sharing Between Agency and Customers to Strengthen Market Orientation: A Case Study of a State Government Agency in Australia Journal of Business Studies Quarterly Vol. 2, No. 2, pp. 125-138.

Holste, J. Scott and Fields, D. (2010).Trust and tacit knowledge sharing and use. Journal of Knowledge Management, Vol. 14 No. 1, pp. 128-140.

Husain, S. (2012). Bureaucracy Culture of Public Service, European Journal of Research in Social Sciences, Vol. 3 No. 4.

International Records Management Trust (2000). Managing Records as the Basis for Effective Service Delivery and Public Accountability in Development,

Institute of Public Administration (2005). A Review of Knowledge Management in the Irish Civil Service, Discussion Paper.

Ipe, M. (2003). Knowledge Sharing in Organizations: A Conceptual Framework. Human Resource Development Review, 2 (4), pp. 337-359.

Ismail, M. B. &Yusof, Z. M. (2009). Demographic factors and knowledge sharing quality among Malaysian government officers.

Jarrar, F. Zairi M. &Schiuma, G.(2010). Defining Organisational Knowledge: A Best Practice Perspective, European Centre for Best Practice Management.

Jimma City Administration (2001). Jimma from Where to Where, unpublished paper presentedat

symposium (in Amharic), May, 2001.

Jimma City Administration (2016), Annual Report, unpublished internal report.

Kakabadse, K., Kouzmin A. and Kakabadse, A. (2001)From Tacit Knowledge to Knowledge Management: Leveraging Invisible Assets, Knowledge and Process Management Volume 8 Number 3.

KernI. (2012).Knowledge Management from Case Studies with ATLAS. Diploma Thesis, Institute of Informatics University of Zurich.

Kim, S. and Lee, H. (2006). The impact of organizational context and information technology on employee knowledge-sharing capabilities'', Public Administration Review, Vol. 66 No. 3.

Koliba, C. and Gajda, R. (2008). "Communities of Practice" as an Analytical Construct: Implications for Theory and Practice",Intl Journal of Public Administration, Vol. 32, No. 1.

Komanyane, K. (2010).Knowledge Management Practices in the Public Sector in Botswana: Mini Dissertation, University of the Western Cape.

Kothari C. (2004). Research methodology: methods and techniques (Second Revised Edition).

Kovacic, A. (2007) Process-Based Knowledge Management: Towards E-Government in Slovenia. Journal of Management, Vol. 12, 1, 45-64.

Kumar S. (2007). Fundamentals of Research Methodology and Statistics, NEW AGE INTERNATIONAL (P) LIMITED New Delhi.

Laila M. (2015). Employee Perception of the Knowledge Sharing Culture in Kuwaiti Companies: Effect of Demographic Characteristics

Lam, A. and Lambermont-Ford, J.P. (2010). ''Knowledge sharing in organisational contexts: a motivation-based perspective'', Journal of Knowledge Management, Vol. 14 No. 1

Lipchak, A. (2002). Information Management to Support Evidence-Based Governance in The Electronic Age: A Public Policy Forum Discussion Paper

Mabudafhasi, R. (2002). Knowledge Management, Capacity Building and a Collective Approach to Sustainable Development in the Coastal Areas of the Northern Cape, South Africa.

Majil, V. (2012).Organizational Learning in the Public Sector: a study with reference to the Eastern Cape Department of Human Settlements, MPhil Thesis, University of Stellenbosch, South Africa

Mbhalati, J. (2010). Knowledge Management Practices in Rural Areas of South Africa, PhD

Dissertation, University of South Africa.

McAdam, R. and Reid, R., (2000), A comparison of public and private sector perceptions and use knowledge management, Journal of European Industrial Training, 24/6, 317-329.

Mekonnen, F., Sehai, E. and Hoekstra, D. (2012). Innovative Approaches of Knowledge Management in Agriculture: Case of IPMS- Ethiopia

Ministry of Civil Service (2012). Civil Service Reform Program in Ethiopia: General Overview Civil Service Transformation Research Center, Addis Ababa, Ethiopia.

Mitre-Hernández, H., Mora-Soto, A., López-Portillo, H. & Lara-Alvarez, C.(2015). Strategies for fostering Knowledge Management Programs in Public Organizations.

Mohd B., Ismail and Zawiyah M. Yusof(2014)The Contribution of Technological Factors on Knowledge Sharing Quality among Government Officers in Malaysia

Misra, D.C. (2007). Ten Guiding Principles for Knowledge Management in E-government in Developing Countries, New Delhi.

Mohd Nor, F and Egbu, C (2010). An insight into knowledge sharing practices in quantity. surveying firms in Malaysia. In:Egbu, C. (Ed) Proc. 26th Annual ARCOM Conference

Molina Azorín,J, M and Cameron, R. (2010). "The Application of Mixed Methods in Organisational Research: A Literature Review" The Electronic Journal of Business Research Methods Volume 8Issue 2 (pp.95-105), available online www.ejbrm.com.

Muciek, C. and Lutek, S. (2013). Organizational Culture Conditions of Knowledge Management

Nirmala, K. and Shrestha, S. (2004). Status of knowledge management in public sector in Nepal. [Online] Available at: http://www.statusknowledgemanagentnepal/paper.

Muiruri, Z. and Kilika, J (2015). The Influence of the Balanced Score Card on Performance of Public Sector Organizations in Kenya.Science Journal of Business and Management.Vol. 3, No. 5, 2015, pp. 150-156.

Ndou, V. (2004), "E–government for developing countries: opportunities and challenges". *The* Electronic Journal on Information Systems in Developing Countries,Vo.18, No.1, 1-24

Nigussa, F.(2014). A Critical Analysis of the Conceptualization and Implementation of Citizens' Charters: Case Studies from UK, India, South Africa and Ethiopia Public Policy and Administration Research.Vol.4, No.1.

Nonaka, I. and Takeuchi, K. (1995), The Knowledge Creating Company, Oxford University Press: New York.

OECD (2003). Survey on Knowledge ManagementPractices for Ministries/Departments/ Agencies of Central Government in OECD Member Countries

Okunoye, A., Innola, E. and Karsten, H. (2002). Benchmarking Knowledge Management in Developing Countries: Case of Research Organizations in Nigeria, The Gambia, and India.

Omotayo, F. Olubunmi(2015). Knowledge Management as an important tool in Organisational Management: A Review of Literature.

Ouchetto, H., Hassoumi, I, Ouchetto, O, Roudies, O. (2012), Knowledge management for e-gov projects in African countries, International Journal of Research in Management.Issue2, Vol. 3.

Paghaleh, M., Shafiezadeh, E. and Mohammadi, M (2011). Information Technology and its Deficiencies in Sharing Organizational Knowledge, International Journal of Business and Social Science, Vol. 2 No. 8.

Pawluczuk, A. and Ryciuk, U. (2015).Variables Shaping the Culture in Organizational Learning in Municipalities.International Journal of Contemporary Management. 14 (2), 51-62

Pinsonneault, A. and Kraemer, L. (2001). Survey Research Methodology in Management Information Systems: An Assessment

Proclamation No. 65/2003.The Urban Local Government Proclamation of the Oromia National Regional State.

Rashman, L.yndsay; Withers, Erin and Hartley, Jean (2009). Organizational learning and knowledge in public service organizations: a systematic review of the literature. International Journal of Management Reviews, 11(4), pp.463–494.

Robert K. Yin (2009). Case Study Research Design and Methods Second Edition Applied Social Research Methods Series Volume 5 SAGE Publications.

Schedler, K, and Scharf, M.(2002).Exploring The Interrelations Between Electronic Government and The New Public Management:A Managerial Framework ForElectronic Government.

Seifu, Y. (2008). A Historical Survey of Jimma Town (1936-1974), MA Thesis, Addis Ababa University, Ethiopia.

Sekaran, U. (n.d). How Do We Know What We Know about Organizational Behavior?

Serrat, O. (2008) Identifying and Sharing Good Practices.

Silvia, D.andSimona, M. (2013). Research Methods Used In Analyzing Organizational Culture. Lucrari_vol_XIX_2013_069,

Singh R. and Gupta M.(2010).Research Questions and Methodological Issues in Knowledge Management.

Smith, E.A. (2001). The role of tacit and explicit knowledge in workplace, Journal of Knowledge Management, Vol. 5, Number 4, 311-321.

Suurla, R., Markkula, M, and Mustajärvi, O. (2002).Developing and Implementing Knowledge Management in the Parliament of Finland.

Syed-Ikhsan, S.O.S. and Rowland, F. (2004). ‘‘Knowledge management in a public organization: a study on the relationship between organizational elements and the performance of knowledge transfer’’,Journal of Knowledge Management, Vol. 8 No. 2.

Szabó, D, andCsepregi, A. (2015).Middle managers, their organization and knowledge sharing: Examination of knowledge sharing maturity, Journal of Social Sciences Research Vol.7, No.1.

Taylor, W A. & Wright, G H. (2004). Organizational readiness for successful knowledge sharing: Challenges for public sector managers. Information resources management journal,17(2): 22-38.

The Constitution of the Federal Democratic Republic of Ethiopia (1995). Addis Ababa.

Thomas, C.,Victor, W., Mbarika, V., Nwogu, R. & Musa, P. (2014)Facilitating BetterGovernance through E-Government Initiatives: Successful Case in Sub Saharan Africa

Tsoukas, H. and Vladimirou, E. (2001).What is organizational knowledge? Journal of Management Studies, 38(7), pp. 973-993.

Unsworth, K. &Axelsson, A. (2015). Exercising Control: A Comparative Study of Government Agencies and their Relationships with the Public Using Social Media

UNPAN (2008).Knowledge Management Basics: Concepts, Objects, Principles and Expectations

Wang, S. and Noe, R. (2010). Knowledge sharing: A review and directions for future research. Human Resource Management Review 20 (2010) 115–131

Wiig, K I. (2002). Knowledge management in public administration. Journal of knowledge management. 6(3): 224-239.

Yang, C., & Chen, L.C. (2007). Can organizational knowledge capabilities affect knowledge sharing

behavior? Journal of Information Science, 33(1), 95-109.

Yousaf, et al, (2013).Empirical Investigation of Knowledge Sharing Obstacles in Education Sector of Pakistan, International Journal of Management & Organizational Studies, VOLUME 2, ISSUE 2

Zhang, X. (2008).Understanding the Conceptual Framework of Knowledge Management in Government, Presentation on UN Capacity-building Workshop. Shanghai, China.

Appendices

Appendix 1: SURVEY QUESTIONNAIRES

Dear respondent;

This study is being conducted as partial fulfillment of Graduate Study in Information and Knowledge Management at Jimma University. Its aim is to investigate the Status of Knowledge Sharing Practices, barriers and opportunities in the public sectors of Jimma City Administration thereby to suggest useful mechanismsfor futureimprovements. The questionnaire is self-administered with the objective of collecting data that will be used to grasp the real picture of the existing situation of Information/Knowledge Management and Sharing in the context of the organization you work in. The researcher would be grateful for your effort in completing this questionnaire.

THE INFORMATION YOU PROVIDE IS STRICTLY ANONYMOUS. IT WILL BE REPORTED ONLY IN AGGREGATE SUMMARIESAND IS USED ONLY FOR THIS RESEARCH PURPOSE**.** You reserve the right to withdraw from the research at any stage.

If you have any question, contact me. My name is *Fati Jemal*; Telephone (mobile): *0928305866*.

PART ONE: Background Data

INSTRUCTION: Please circle your response to each of the following questions.

1. Your gender? **A.** Male **B.** Female

2. Your age group?

A. Less than 23 years **B.** 23-30 years **C.** 31-40 years **D.** 41-50 years **E**. Above 50

3. Your Educational Status?

A. Diploma **B**. Bachelor Degree **C**. Masters Degree **D**. Doctoral Degree

4. Your total work experience in government organization (in years)?

A. Less than 3 years **B**. 3 -10 years **C.** 11-15 years **D.** Greater than 15 years

5. Your work experience in this sector/organization (in years)?

A. Less than 3 years **B.** 3 -10 years **C.** 11-15 years **D**. Greater than 15 years

6. For how long you have been working at the current position in this organization?

A. Less than 1 year**B**. 1 -2 years **C**. 3-5 years **D**. Greater than 5 years

7.YourWork Position

A.Process Owner (Division Head) B. Planning and Monitoring Officer

C. HR Officer/head**D.**Ethics & Reform Officer

PART TWO

This part has **five** sections (Sections **A, B, C, D** and **E**).

Section A. Availability ofknowledge/information sharing practices and mechanisms

INSTRUCTION: **Please answer 'yes' or 'no' or 'uncertain' to the following questions by ticking (putting √ mark) in the appropriate box**

No	**Questions**	**Yes**	**No**	**Uncertain**
1	Is there a clearly articulated (i.e. written) information/knowledge sharing strategy in your organization?			
2	Does your organization assign an experienced mentor to coach junior employees?			
3	Do information/knowledge stored in paper format can easily be accessed and shared in your organization?			
4	Do information/knowledge that stored in electronic format can easily be accessed and shared in your organization?			
5	Are there periodic staff meetings for the purpose of information, knowledge and experience sharing among employees?			
6	In general, do you believe that staffs understand how their knowledge/information sharing practices contribute to the performance of the			

	organization?			
7	Are there formal mechanisms in place to capture experience and knowledge of employees when they leave/ retire from your organization?			
8	Are there frequent opportunities for employees to participate on trainings, workshops, conferences and seminars in order to increase their specific abilities?			
9	Is it mandatory for staff to pass on to fellow workers and share new knowledge and information after attending seminars, workshops and conferences?			
10	Are staff expected to participate in professional associations and other communities of practice related to their fields of expertise?			
11	Do information about good work practices, lessons learned, and knowledgeable persons easy to find in your organization?			
12	Would you say that the regular activities /tasks that employees perform help them to share experiences/knowledge with each other in your organization?			
13	Is knowledge/information sharing a part of employees' performance evaluation?			
14	Do employees in your organization exchange knowledge, information and experience with employees of other similar organizations?			

Section B: Organizational Culture

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

No	**Statements**	**Strongly Disgree**	**Disagree**	**Undecided**	**Agree**	**Strongly Agree**
1	Employees of my organization are eager and receptive to new ideas and concepts					
2	Employees of my organization are motivated to express their opinions.					

3	There is reward and incentive system for information/knowledge sharing in my organization.					
4	The management of my organization encourages knowledge sharing in action, not only in words.					
5	Knowledge sharing is seen as strength and knowledge hoarding (hiding) as weakness in my organization.					
6	In my organization people at all levels recognize knowledge as a key resource.					
7	In my organization, a climate of trust is predominant among employees as well as between employees and the management.					
8	The overall vision and mission of my organization are clearly stated and communicated to the employees by the leaders.					
9	Communication in this organization is mostly one-directional, which is from the top management down to the sub-ordinates.					
10	Working in teams is more preferred than individual performance in my organization.					
11	There is a culture of effectively using the available technologies to facilitate knowledge sharing in my organization.					
12	The employees in my organization are highly motivated and committed to their work.					
13	Overall, my organization has a culture intended to promote knowledge and information sharing.					

Section C: Organizational Structure

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

No	Statements	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	There are many activities that are not covered by formal procedures in my organization.					
2	In my organization, employees are encouraged to make decision regarding their work, without approval of the leader.					
3	Rules and procedures make it difficult to use new ideas to handle cases in organization.					
4	In my organization, there is a participative goal setting, measurement and feedback.					
5	There are enough locations (hall) within the office where staff can socialize and exchange knowledge.					
6	Employees believe that they are promoted to a higher grade not by years of work but by their competencies and performance.					

Section D: Availability and Use of ICT

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

No	Statements	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	Most employees in my organization have access to computer.					
2	Most employees in my organization have skills of computer use (including e-mail and Internet browsing).					
3	My organization has e-mail account through which reports and information/knowledge can be exchanged.					

4	My organization has social media such as facebook account through which its activities are publicized and comments are received from clients.					
5	My organization has broadband Internet connectivity.					
6	My organization uses Database/other electronic data management systems					

Appendix 2: Interview Guide

1. What is knowledge sharing for you?
2. What is the status of knowledge sharing in your organization?
3. What are the key activities that assist and support timely information to be shared between employees (to improve services or to make decisions)?
4. How are important documents such as manuals, work plans, rules located and how arethey structured? Are they managed in paper format, electronic format, or both? Are these documents accessible by all employees?
5. Do the current organizational structure and job responsibilities of your organization depend on the business process re-engineering (BPR)? If yes, how effective is it? If not, why not?
6. Do employees perceive the daily meetings at the end of working hours as devoted to knowledge/information sharing? Do the meetings function for effective knowledge/information sharing?
7. Are there occasions on which research reports relevant to your organization's mission presented for discussion to the staffs by practitioners or academicians?
8. What are the main barriers/challenges in managing, sharing and reuse of knowledge/information resources?
9. What opportunities, do you think, to be exploited to improve knowledge/information management and sharing in your sector?
10. Is there any initiative to strengthen knowledge sharing practices in your organization? If not, what is the future plan in this respect?

11. Do you have any additional information or comments to add to my discussion?

Appendix 3: Observation Checklist

1. Name of the Office/Agency _____

2. Types of work performed

_____

3. Storage, search and retrieval processes of paper documents and files as well as electronic format, if any _____ _____

4. Office design, whether it is comfortable for knowledge sharing among colleagues on duty.

_____

5. Availability of communication tools such as computer and types of software in use, Internet, mobile phone, fixed phone and others.

_____

6. Availability of knowledge artifacts such as: Documentation, memos, drawings, Business Process flow charts, notice board, brochures, newspapers, information on where to go (for clients), etc.

_____

_____.

DECLARATION

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university, and that all sources of material used for the thesis have been duly acknowledged.

Declared by:

Name: Fati Jemal Ali

Signature: _____

Date: _____

Confirmed by Advisor:

Name: Worku Jimma (PhD Candidate)

Signature: _____

Date: _____