ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
SCHOOL OF INFORMATION SCIENCE

KNOWLEDGE MANAGEMENT PRACTICES OF COMMERCIAL BANKS IN ETHIOPIA

HABTE REJI

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BY

HABTE REJI

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Rahel Bekele (PhD)

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Name and Signature of Members of the Examining Board

	Name	**Title**	**Signature**	**Date**
1.	_____	Chairperson	_____	_____
2.	_____	Advisor	_____	_____
3.	_____	Examiner	_____	_____

ABSTRACT

Knowledge Management benefits the Ethiopian banking industry for rendering quality services. In this dynamic world, the banks will not be able to compete in an open economy unless they have invested KMSs to get most of the value from the banks' assets. In this context, It is important to identify the KM practices found in the bank and implementation of KMS an appropriate tool to control business focus.

This study attempts to investigate the knowledge management practices of commercial banks in Ethiopia. To this end, primary and secondary sources are consulted to get the necessary information for the research. Questionnaires are distributed to employees of IT and HR departments of the five randomly selected banks. In addition, a semi structured interview also held with appropriate department personnel.

The result of the study revealed that currently, the banks do not have any formalized way of managing knowledge. But this doesn't mean that there is no any means of managing knowledge totally within the banks. It is also found that the banks don't have full-fledged computerized system for managing knowledge. Thus, employees don't easily access the existing knowledge. The banks are expected to work on this area. Regular updating of lessons learned exists in all the banks considered. The study result also showed that most of the employees are willing to share their knowledge openly to other members of the bank. Based on the findings, accusation of tacit knowledge of employees exists within the banks but it is at the infant stage. Majority of the KM practices are not done in a centralized manner. Rather paper based communication is more used to transfer and share knowledge. It is also found out that there is no organizational unit dedicated for KM and also no position for knowledge worker in the organizational structure.

DEDICATION

I dedicate my work to my family and friends. A special feeling of gratitude to my mother, Weletemaryam Chinda, and my wife, Wr/o Birtukan Kuliche, whose words of advice and encouragement throughout the postgraduate program. My Sisters (Alemtsehaye Reji and Meskele Reji) and my boss Mersha Tadesse are very special.

I also dedicate this work to my friends, Ashenafi Yadessa, Bisrat Asfaw, Kelemie Tebkew, Goitom G/Tsadkan and others, who have provided me their support hand throughout the process. I will always appreciate all they have done.

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ACRONYMS

AAU	Addis Ababa University
ATM	Automated Teller Machine
BKMM	Banking Knowledge Management Model
BMO	Bank of Montreal
CBE	Commercial Bank of Ethiopia
CBS	Core Banking System
CIO	Chief Information Officer
DBU	Deutsche Bank University
HR	Human Resource
HRMS	Human Resource Management System
IBD	International Banking Department
IDC	International Data Corporation
ICT	Information Communications Technology
IS	Information Systems
IT	Information Technology
KM	Knowledge Management
KMS	Knowledge Management System
MIS	Management Information System
NBE	National Bank of Ethiopia
POS	Point of Sale
R&D	Research & Development
SCS	Stock Control Systems
SPSS	Statistical Package for the Social Sciences
WLE	World Learning Ethiopia

CHAPTER ONE

INTRODUCTION

1.1. Knowledge Management in Practice

Knowledge management (KM) has been implemented and practiced in both public and private sectors (Cong & Pandya, 2003). Specifically, KM is becoming very important in all financial sectors since it simplifies the delivery of timely and effective knowledge that are used in planning, controlling, decision making and evaluation. It helps managers in formulating strategic, tactical and operational activities in a best ways in order to achieve the organization's desired objectives. Thus, Knowledge management is critical for organizational success and in achieving its objective(s).

Many benefits of KM have been claimed in literatures. In an organizational setting, KM benefits can occur at two levels; individual and organizational (Cong & Pandya, 2003). At the individual level, knowledge management provides employees opportunities to enhance skills and experience by working together and sharing other people's knowledge and learn from one another, thereby improving personal performance, which leads to better career advancement.

At the organizational level, knowledge management provides two major benefits for the organization:

i. Improving the organization's performance through increased efficiency, productivity, quality and innovation. Organizations that manage knowledge claim higher rates of productivity. By having greater access to their employees' knowledge, organizations make better decisions, streamline processed, reduce re-work, increase innovation, have higher data integrity and greater collaboration.

ii. Increasing the financial value of the organization by treating people's knowledge as an asset similar to traditional assets like inventory and capital facilities.

There are several examples of knowledge management applications successfully implemented in banking sector (Hafizi, et al., 2006) such as:

- World Bank is renowned as one of the champions in knowledge management application. Relevant know-how was identified that could then be captured and entered into the knowledge base so that it was accessible by all staff. Relevant parts of the system are now becoming attainable externally, so that clients, partners, and stakeholders around the world will be able to have access to the know-how of the organizations. Through the help of the Human Development Network, the relevant task team leader was able to give to the official within a short time frame a comprehensive analysis of the international experience.

- When Swedish Insurance giant Skandia expanded its "points of sale" from 5,000 to 50,000 in less than five years, senior management began looking for a more effective and efficient manner of transferring knowledge and increasing its use throughout its global operations. It has leveraged internal know-how to dramatically reduce start-up time for new ventures to seven months, compared to an industry average of seven years.

- Bank of Montreal (BMO) is the oldest bank in Canada. It is also a Canadian third largest bank with sales of $US12.23 billion in 2000 (Dzinkowski, 2001). BMO is a leader in customer centric knowledge based solution. This bank wanted to change the status quo of the traditional knowledge discovery lifecycle and capture the potential benefits of improving the efficiency of turning models into production. As a result, during 2000/2001 the Bank of Montreal participated in a multimillion dollar project that would help make the knowledge discovery process more economical, error-free and faster.

- Deutsche Bank is the biggest Euro zone bank and the world's second largest bank (Dzinkowski, 2001). Deutche Bank has embraced the strategy of continuous, concentrated corporate learning and intellectual capital branding through its creation of the Deutsche Bank University (DBU). DBU is in initial stage of development and to a large degree follows the thinking of what are recognized by industry experts as best practices in developing a corporate university as an umbrella organization for learning.

1.2. Banking Industry in Ethiopia

Banks are financial institutions that accept deposits and make loans. Banks provide financial services to its customers and businesses. In broader terms, a bank is a financial institution that receives, collects, transfers, pays, exchanges, lends, invests, or safeguards money for its customers (Siklos, 2001). The term bank includes firms such as commercial banks, savings and loan associations, mutual saving banks, and credit unions. Banks are the financial intermediaries that the average person interacts with most frequently. The origin of financial sector in Ethiopia dates back to 1905 when the first commercial bank (Bank of Abyssinia, a private company controlled by the Bank of Egypt), was established (National Bank of Ethiopia (NBE), 2012).

According to NBE, there are nineteen commercial banks that operate in Ethiopia. Three of them (Development Bank of Ethiopia, Commercial Bank of Ethiopia (CBE) and Construction and Business Bank) are owned by the government and the rest sixteen (Awash International Bank, Bank of Abyssinia, Wegagaen Bank, United Bank, Nib International Bank, Dashen Bank, Lion International Bank, Oromia International Bank, Zemen Bank, Bunna International Bank, Berhan International Bank, Abay Bank, Addis International Bank, Cooperative Bank of Oromia, Debub Global Bank and Enat Bank) are privately owned.

Since banks are the engine of the economy, they are heavily regulated by the government. National Bank of Ethiopia (NBE) is the responsible government organ to regulate the financial sector. These banks offer a wide range of financial services that address the specific needs of their customers. Most of them provide common banking services like deposit, loan, international banking and others. Some of them provide unique services like Automated Teller Machine (ATM), Point of Sale (POS), Internet Banking, SMS Banking and Mobile Banking services.

Now a day the banks have been implementing their own centralized Core Banking Systems in order to run the day to day business activities and provide quality services. All the banks, except Zemen Bank, operate by opening branches at different locations. It might be a city or outlying branch. The banks employee a large number of employees from different field of specialization such as Accounting, finance, management, Information Technology (IT), Law and others.

Customers of the bank are from different sector of the economy with varying need. It ranges from individuals to corporate and government organs. It might be from agricultural, industrial and/or service sector of the economy. The banking sector is always targeted to improve their customer satisfaction that will result in an increase in revenue. The financial sector is always vital to the development of any economy and there is a need to carefully tap knowledge possessed by employees in order to realize this goal (Sodiya, et al. 2006).To this end, employees of the bank need to be knowledgeable about the industry as well as the operations in the bank and contribute a lot to the success of this sector.

1.3. Statement of the problem

Organizations have realized that one of their most valuable assets is the knowledge in the minds of their employees. Knowledge is usually stored in the form of organizational practices inside an organization. KM can be found in almost every type of organization today: law firms, medical practices, pharmaceutical companies, utilities, engineering firms, healthcare, government departments, banks and insurance companies, and the military sector (Dalkir, 2005, p.311).

Modern banks investigate the importance of the value of KM in the bank business practices. The knowledge in a bank covers the range from the bank organizations' own internal intellectual capital, to the wealth of data heel on any customer's transaction (Jayasundara, 2008). To this end, these banks are now moving towards becoming a knowledge-based organization, due to the globalization of the financial market (Bhosale, 2012). They have begun to realize the role knowledge plays in bringing up the value of the banks. Thus, in order to compete and become successful in the banking sector, banks must know how to manage their valuable assets.

Workers' experience and expertise plays key role in delivering quality services to customers of the bank. It was found out that tacit knowledge is always lost through employees leaving, transferring or retiring. As Experts leave the bank, they are taking Knowledge and skill away that may not be replaced with the quality and time as needed. It is evident from various literatures that both tacit and explicit knowledge possessed by employees can be retained and shared to others by implementing KM.

According to National Bank of Ethiopia (NBE), Ethiopian banking industry is growing rapidly. A number of new banks have joined the industry. The numbers of branches are also increasing throughout the country from time to time (NBE, 2012). This growing industry demands experienced and knowledgeable manpower, which might be supplied from fresh graduates, employees of other banks and/or other sector through turnover.

Knowledge management provides benefits to individual employees, to communities of practice, and to the organization itself (Dalkir, 2005, p.35).The findings of different researches depicted that effective use KM practices has contributed a lot to the organizations success. According to the research by Zainab, Knowledge Management System in Bahrainis' Banks ensures better and more efficient results in decision making (Zainab, 2011). And the researcher concluded that, KM plays vital role in helping knowledge workers making effective and just-in-time decisions.

An Empirical Study conducted by Manoj K. Chaudhary also revealed that Nepalese banks that used knowledge management are more innovative and have better performance than those banks that do not implement knowledge management (Manoj, 2012).

In Ethiopia, according to the research conducted at Commercial Bank of Ethiopia (CBE) on Knowledge Sharing Practice revealed that, the major barrier to share knowledge among employees of CBE is lack of time for externalizing existing knowledge and internalizing new knowledge. (Habtamu, 2011)

Even if KM practices are widely used in the developed countries; in Ethiopia, organizations are not using KM Practices. The aim of this study is therefore to investigate the extent to which commercial banks in Ethiopia have adopted knowledge management in order to retain the knowledge of their employees and to share with others.

It also identified the various knowledge management practices of these banks. In this regard this research addressed the following list of questions:

- ✓ What mechanisms do banks use to retain both tacit and explicit knowledge of employees?
- ✓ What sort of KM practices exists in the banking sector?
- ✓ How do banks create, capture, share and enrich knowledge?
- ✓ What KM tools are used in the bank?
- ✓ What are the common KM practices used in the banking sector?

The importance of the research is that, after successful completion, Banks will have a list of best common KM practices that will contribute a lot in achieving their objectives and in building their own KM system. They will also have a chance of sharing the existing KM practices. The finding of this research is also important to scholars in the area. They will have an insight to conduct further research and contribute to the existing knowledge in the industry. This research paper will also be an input to the libraries of Addis Ababa University (AAU) and others so that it would be used as a reference material for the upcoming students.

1.4. Objective(s)

1.4.1. General Objective

The general objective of this study is to investigate and describe the various KM practices used by Commercial Banks in Ethiopia for the successful and uninterrupted operation of the sector.

1.4.2. Specific Objectives

The main research objective can be specifically summarized as follows:

- To identify the different KM techniques, tools and practices used by each banks under consideration.
- To describe existing KM Practices in the banks
- To identify the major barriers in KM in the banks
- Based on the existing practices, recommend on the KM practices that could be used in the industry.

1.5. Scope

The area of the research is the Ethiopian Banking Industry. The reason for selecting banking sector is because customer satisfaction, creativity and quality of services are so important and the sector is so sensitive to technological advancement. The scope is delimited in identifying the major KM Practices in the representative sample commercial banks in Ethiopia.

If this research was conducted in all the banks that operate in Ethiopia, the result would have been more useful. However, due to financial and time constraints the study is conducted in the five randomly selected banks. As two major components in KM are People and Technology, the focus of the research concentrates at the Human Resource (HR) and Information Technology (IT) Departments of those banks. This is because the required information for this research is in the hands of these departments.

1.6. Research Design and Methodology

In this section, the research design and methodologies used to conduct the research are presented. The subsections below include research method, source of data, sampling method and the methods used to collect the data.

1.6.1. Research Method

To conduct this research, the researcher used a descriptive research method. This method is selected because of the fact that the main objective of descriptive research is describing the state of affairs as it prevails at the time of the study (Kothari, 1988). Since the general objective of this research is to examine the various KM practices of the commercial banks in Ethiopia, this method was found to be an appropriate for collecting vast information. It also enabled to gather detailed description of the existing techniques and practices of KM used.

1.6.2. Source of Data

This research used both primary and secondary data sources in order to have an exhaustive list of KM practices used by the banks.

1.6.3. Method of Sampling

The study population is comprised of all the nineteen commercial banks in Ethiopia. However, due to financial and time constraints the study was conducted only in the five of randomly selected banks. The sampling technique used here was a simple random sampling without replacement as it gives each and every item in the population an equal chance of being included in the sample. Since the universe is finite, each one of the possible samples has the same probability (5.26%) of being selected.

In addition, as the two major components in KM are People and Technology and as most of the data required for this research is highly concentrated at HR and IT Departments of the selected banks, these departments were selected to be the focus area of this research. In each department, senior managers are selected purposively for interview as they are full of the required information due to their long year experience. To this end, out of the thirty five managerial staffs only twenty five of them were interviewed. The remaining ten were not willing to be interviewed. Three hundred forty questionnaires were distributed to all staffs of the two departments and 252 of them are returned.

1.6.4. Method of data collection

The researcher has used more than one data collection techniques to find the relevant information in order to answer the research questions. Both primary and secondary data were collected by using the following three ways.

1.6.4.1. Questionnaire

Questionnaires that focus on the KM Practices were prepared. The questionnaires were both open and closed ended in nature. Questionnaires are prepared after extensive review of literatures in the area of the study; those questions that focused on the research objective and important to address the statement of the problem were adopted from the review.

The questionnaire has two parts: part I contains the background of the respondents that could be used for demographic analysis, (bank and department name in which the employee is working, gender, age, education level, and experience in the banking sector.) Part II contains questions requesting the respondents to state their agreement or disagreement on the issues of knowledge management practices in their banks. The questionnaires were dropped at the respondents' banks and collected later.

1.6.4.2. Interview

Because of the flexibility of approach to questioning, semi-structured interview was designed and conducted with the senior managers of the respective departments. I.e. The primary data was collected through interviewing senior management staffs.

1.6.4.3. Observation

The information obtained using this way shows what KM practices are currently used by the banks. It supplements the data gathered using the other two methods. A checklist of practices (list of KM practices found, list of tools used in the banks to manage knowledge, list of KMSs) and a review of documents and procedures used by the banks under investigation were visited.

Even if it is an expensive method, the information provided by this method is of high value as the sample size is small and as the research is descriptive type.

To make the data collection task as effective as possible a number of activities were performed before the actual data collection starts. The following activities were done in advance.

- ✓ Tools and techniques to be used for collecting data were listed and prepared based on the type of data and the reviewed related literatures.
- ✓ A set of questionnaires were designed and distributed to the respondents. However, before distributing the final questionnaires, a Pilot Study, for testing the questionnaire, were conducted with ten people selected from five of the banks. The pilot study enabled to check the validity of the questions.
- ✓ Further reading has been made by the researcher to minimize the business knowledge gap in the industry.
- ✓ A list of basic interview question was designed.
- ✓ The interview and observation were conducted by the researcher himself where as a skilled assistant was employed for questionnaire.
- ✓ A prior arrangement was made with both departments of each bank.

1.6.5. Method of analysis

After all the data have been collected, analysis of the data was done. The data is compiled, organized and processed. The preprocessed data is also analyzed using descriptive statistics by statistical software called Statistical Package for the Social Sciences (SPSS). In addition to that, a qualitative analysis of the data was made to get valuable insights. Data gathered using the semi-structured interview and observation were summarized and crosschecked with the results found from questionnaire.

As the research focuses at HR and IT Departments, that are the two major components in KM, and as it incorporates both managerial and non-managerial employees of the banks, the result of the study is believed to be valid and reliable.

1.7. Organization of the Study

This study is organized into four chapters. The first (this) chapter is used to introduce the research. It mainly consists of the KM practices, banking industry in Ethiopia, statement of the problem, both the general and specific objectives, scope of the study, and research design and methodology which comprised of research design, method of sampling, type of data, method of data collection and data analysis.

The second chapter is devoted to literature review about knowledge management and knowledge management practices. It also presents related research works done on KM in the banking & other sectors. The third chapter is data presentation, analysis and interpretation. It presents the detail of data gathered using deferent data collection techniques and the results of analysis. The last chapter of this study is chapter four. It is used to present the conclusions and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

In the literature, there are a number of empirical studies about knowledge management, revealing organizational learning, developing new product/service by creating a more suitable environment for innovation (Özlem, et al., 2013) increasing employee performance by improving core competencies (Sabherwal, 2005), providing competitive advantage (Roth, 2003) and sustainable organizational performance (Bogner and Bansal, 2007).

Knowledge Management has several benefits to the success of an organization. For instance it improves efficiency of people and speeds up innovation in the organization. It also improves competitiveness of the organization. On the other hand, implementation of KM in an organization is not an easy task. It faces a number of challenges both from inside to outside of the organization. The extents of knowledge management practices such as capturing, codifying and storing of knowledge are the most challenging characteristics of knowledge management (Omur et al., 2009).

Despite the importance of banking institutions to the economy and the growing recognition of the importance of KM across the world, there has been very little research carried out on assessing KM in banking institutions.

In this chapter, reviews of related research works done on KM in the banking sector are presented. Both the conceptual and empirical reviews made are presented in the upcoming sections. The next section presents the conceptual review made in KM. Brief discussion on KM, KM processes and the major common tasks in KM process are described under the sub sections. The third section includes all the empirical reviews made on KM in the banking and other sectors of the economy.

2.2. Theories in Knowledge Management

2.2.1. An Overview of Knowledge

Knowledge has become the key economic resource and the dominant source of competitive advantage for organizations today (Druker, 1995). It is becoming the fourth factor of production on top of land, labor and capital. As (Vorbeck, 2001) stated this as an increasing number of organizations are giving more emphasis to their intangible assets, which was mostly left idle, unexplored and unmanaged (Vorbeck et al., 2001). This indicates that the most important intangible asset of every organization is knowledge (Hafizi and Nor, 2006a). The efficient use of this intangible asset adds value to the organization (Yang, 2011). Knowledge is also viewed as a critical organizational resource that provides a sustainable competitive advantage in a competitive and dynamic economy (Davenport and Prusak, 1998; Foss and Pedersen, 2002; Grant, 1996; Spender and Grant, 1996). In this sense, the organizations' capability to learn or the ability to create and apply new knowledge is considered as one of the main sources of gaining competitive advantage (Nonaka and Knonno, 1998; Nonaka, 1994; and Bontis, 2001).

According to Dalkir, there are two major types of knowledge: Tacit Knowledge and Explicit Knowledge. Tacit knowledge is difficult to articulate and also difficult to put into words, text, or drawings. In contrast, explicit knowledge represents content that has been captured in some tangible form such as words, audio recordings, or images. Moreover, tacit knowledge tends to reside "within the heads of knowers," whereas explicit knowledge is usually contained within tangible or concrete media (Dalkir, 2005, p.8). 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, disks and optical media (Omur et al., 2009).

The globalization of financial markets forced bankers to be knowledge-based and be more efficient in managing knowledge in their banking operations (Bhosale, 2012).

The knowledge in a bank covers the range from the bank organizations' own internal intellectual capital, to the wealth of data on any customer's transaction (Jayasundara, 2008). This implies that the banks have begun to realize the role knowledge plays in bringing up the value of the banks.

2.2.2. Knowledge Management

Knowledge management is the concept in which an enterprise consciously and comprehensively gathers, organizes, shares, and analyzes its knowledge in term of resources, documents, and people skills (Lyons, 2000). The emergence of "knowledge era" is radically changing and creating value in organizations (Carlisle, 2002), whereby the long-term viability and prosperity of an organization increasingly depends on its ability to leverage the hidden value of its intangible assets. The Four fundamental dimensions are emphasized in literature for an efficient and effective knowledge management. These dimensions consist of technology (Zaim, 2007), organizational culture (Lopez et al., 2004; Janz and Prasarnphanich, 2003), leadership (Jordan and Jones, 1997) and lastly, measurement of the results of knowledge management applications (O'Dell et al., 2003).

According to Dalkir (2005, P.19) there are over 100 published definitions of knowledge management. Dalkir (2005, p.3) defined knowledge management as:

> "Knowledge management is the 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."

Quinn (1992) states that KM plays important roles in public as well as private organizations, with each role serving specific demands and purposes, and being implemented differently. In public organizations for example, KM areas are considered to enhance decision-making within public services; aid the public to participate effectively in public decision-making; build competitive societal information community capabilities; and develop a knowledge competitive workforce.

The number of organizations claiming to work with KM is growing progressively (Grover, et al., 2001; Martensson, 2000; Moffett, et al., 2002). This is attributed to several reasons. Firstly, KM has proven benefits and has been adopted by 80% of the world's biggest organizations (KPMG Consulting, 2000). Secondly, core competencies are apparently based on KM, and therefore rely on the skills and experience of the people who do the work; and the fact that these may not exist in a physical form in the future, increases the attractiveness of knowledge management system KMS (Manville and Foote, 1996). Thirdly, the recent changes in business direction emphasizes the importance of greater understanding of knowledge-intensive work such as how people think, learn, and use knowledge (Brown and Duguid, 2000; Damasio, 1994, 1999; Klein, 1998; Nonaka and Takeuchi, 1995; Wiig, 1994). Fourthly, organizations with greater knowledge can combine traditional resources and assets in new and distinctive ways, thereby providing greater value to customers (Teece, et al., 1997).

Application of knowledge management can generate several benefits (Payne and Tony, 1994; Alavi and Leidner, 1999; Hafizi and Nor, 2006a). Employees will spend less time looking for information and expertise that in turn improve efficiency of people and improve the speed and effectiveness of innovation in the organizations. Knowledge management improves the competitive position by operating more intelligently for enhancing the financial performance of the organization.

Moreover, KM optimizes the interaction between all the departments of the organization and increases the individual competencies within the organization. Finally, improving the customer service is a primary motivation behind many KM implementation initiatives.

For effective KM to take place, organizations should create conducive knowledge management environment. In addition, organizations are required to improve the organizational culture that enhance collaborative teamwork culture; network and virtual organization; learning, research and discovery culture. Moreover, organizations should give encouragement and promotion for creativity rather than mere adaptation and emphasis on leadership roles rather than administrative position (Alavi and Leidner, 1999). However, studies reveal that Information Communications Technology (ICT) is not critical factor for effective KM implementation. KM requires organizational process and human factor (Alavi and Leidner, 1999).

According to an International Data Corporation's (IDC) survey conducted across more than 600 banks in Western Europe, only 20% of banks are currently applying a knowledge management principles (Blesio & Molignani, 2000). This trend is actually more prevalent among large banks. With greater awareness of the importance of knowledge management, IDC expects this situation to change in the near future, and knowledge management will become a priority for the banking sector (Bhosale, 2012).

In modem banks there is no debate about the value of Knowledge Management as a business practice. Banks, insurance companies and all other players in the competitive financial service sector have recognized that knowledge is power (Knowledge Management, 2001; Cross and Weller, 2001; Sorrentino, 1999). This is also true for the Ethiopian banking industry. But the question is, how do they manage that knowledge more effectively? To this end, this research will address the major KM practices exercised by the selected sample commercial banks in Ethiopia.

2.2.3. Organizational Culture

Schein (1999), who is generally considered the father of organizational culture, provides the following definition: “organizational culture is a pattern of basic assumptions—invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems” (p. 385).

According to Dalkir (2005), organizational culture and climate may either help or hinder knowledge sharing. An organizational culture that encourages discovery and innovation will help, whereas one that nurtures individual genius will hinder. An organization that rewards collective work will help create a climate of trust, whereas a culture that is based on social status will hinder knowledge sharing. Without a receptive knowledge-sharing culture in place, effective knowledge exchanges cannot occur. Significant organizational changes may need to take place before effective knowledge sharing can begin to take place (Dalkir, 2005, p.133).

2.2.4. Knowledge Management Process

After broadly defining knowledge, knowledge management and its applications it is important to take into consideration the process of knowledge management. With the increasingly wide spread adoption of KM, knowledge management processes such as knowledge creation/capture, knowledge sharing/dissemination, and knowledge acquisition/application have begun to form part and parcel of how organizations conduct their core business and how knowledge workers conduct their work activities in an efficient and effective manner (Dalkir, 2005, p.333).

Knowledge management process has become an indispensable factor for the banking sector. In this context, banks have been intensely competing to know their customers better, to offer solutions for individual needs, and to transform them to their life-long customers. At the heart of all these developments, proper management of knowledge becomes even more crucial and only a mechanism, in which a proper and efficient manner of managing knowledge creates a difference, becomes operative (Özlem, et al., 2013).

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. Further, Leila et al. (2008) said that KM process is about creation, transport, storage, distribution and sharing of knowledge. According to Uriarte, the knowledge management process within an organization must take into account not only the processes and material resources but, more importantly, the people by whom knowledge is generated (Uriarte, 2008).

The process and practice of knowledge management is a central focus of KM (Dalkir, 2005). In practice, KM process has five major common tasks namely knowledge creation, acquisition, codification, sharing and application.

2.2.4.1. Knowledge Creation

Knowledge creation is the development of new knowledge and know-how innovations that did not have a previous existence within the company (Dalkir, 2005, p.43). Thus, it is the initial task performed in implementing KM in any organization. Knowledge creation always begins with the individual (Dalkir, 2005, p.52). This is because of the fact that knowledge usually exists in the mind of people in its tacit form. New knowledge is created by individuals through applying this tacit knowledge in to the problems at hand. Payne and Tony (1994) also evidenced that the tools and techniques that support knowledge creation are ways of managing people and the way in which they interact makes the individuals to create new knowledge (Payne and Tony, 1994).

Knowledge creation may occur through Research & Development (R&D) projects, innovations by individuals to improve the way they perform their tasks, experimentation, reasoning with existing knowledge, and hiring of new people. Knowledge may also be created through knowledge importing (e.g., elicit knowledge from experts and from procedure manuals, engage in joint ventures to obtain technology, or transfer people between departments). Finally, knowledge may be created through observing the real world (e.g., making site visits, observing processes after the introduction of a change).

2.2.4.2. Knowledge Acquisition

Knowledge acquisition refers to the knowledge that a firm can try to obtain from external and internal sources (Alan, 2011). The external sources include suppliers, competitors, partners, alliances, customers and external experts. Whereas as internal sources includes experts and other employees of the organization.

Hence, eliciting the knowledge that exists at the internal and external sources are essential. However, the knowledge engineers should consider the following issues; most of the knowledge is in the heads of experts. Experts are very busy and valuable people and each expert does not know everything. Because of these issues, techniques are required to elicit the knowledge of experts: interview, concept mapping, commenting, observation, audio/video recording and teach-back are some of the techniques used to elicit the knowledge of the experts (Alan, 2011). Thus, choosing the appropriate technique by considering the real situation is essential to acquire the required knowledge.

2.2.4.3. Knowledge Codification

After the acquiring the knowledge from different sources and experts, it should be codified or recorded for making easily accessible for whoever wants to use. This process will transform knowledge into a coded form to make knowledge structured, explicit, transferable and easy to understand as possible (Paween, 2006). Knowledge codification involves conversion of tacit knowledge into explicit knowledge in usable form.

Knowledge codification is stored and retrieved via information retrieval systems such as Decision tree, Decision table, Boolean logic, fuzzy logic, Vector query and Extended Boolean logic. The aim of information retrieval is to access retrospective knowledge of the organization and to share for all users who need the knowledge (Sagsan, 2006).

2.2.4.4. Knowledge Sharing

The process of organizational knowledge creation is initiates by the enlargement of an individual knowledge to group knowledge then into organizational knowledge. To ensure that the created knowledge is available for applying in the organization, individual and teams must have to share what they know with other co-workers. This can be carried out through some kind of knowledge base (technical) or through the direct exchange of people (Payne and Tony, 1994).

Indeed, knowledge is of limited organizational value if it is not shared. The ability to integrate and apply specialized knowledge of organizational members is fundamental to a firm's ability to create and sustain competitive advantage (Grant, 1996). According to Payne and Tony (1994) knowledge sharing is undertake when best practices can be share through organizational processes and standard procedures. People can share their knowledge by telling stories about their experiences. Knowledge sharing is also takes place at formal or informal social communication network. In addition, knowledge can be shared through questioning, mentoring and coaching. In addition, good workplace design can encourage people to create, share and use knowledge to the benefit of the organization.

Tacit or explicit knowledge is communicated to other organizational participants'/employees/ in this step; three important clarifications are in order (Sagsan, 2006). First, knowledge sharing means effective transfer, so that the recipient can understand it well enough to act on it. Second, what shared is knowledge instead of recommendations based on the knowledge. Third, knowledge sharing may take place across individuals as well as across groups, departments or organizations.

To transfer tacit knowledge it requires strong personal contact between employees of the organization. While explicit knowledge should be stored in procedures or presented in papers and databases so that it could transfer accurately. There are many reasons why knowledge sharing is important: intangible products - ideas, processes and information - are growing in the share of global trade from the traditional, tangible goods of the world economy. It is also important when there is an increasing in turnover of staff in the organization. In addition, knowledge sharing is important for organizations geographically dispersed and that cannot understand what they know as a whole picture.

2.2.4.5. Knowledge Application

Naturally, knowledge is acquired from all works of every occupation; even from a simple work, knowledge is found in tacit or explicit manner. As a result, employees are required to use their knowledge for making decisions and performing tasks perfectly for the organizational success. Knowledge has no value unless it consistently used or applied, in the right way, at the right place and at the right time (Payne and Tony, 1994).

2.3. Related Works

A number researchers are conducting research to investigate KM practice in different regions of the world and there are several examples of KM application that are successfully implemented in the banking sector. In this regard, understanding the experience of the banks that implement KM is critical. Thus, this section presents detailed review of related research works done in the area.

Habtamu (2011) conducted a research on Evaluation of Knowledge Sharing Practice in Commercial Bank of Ethiopia (CBE). The main aim of the research conducted was on evaluating the knowledge sharing practice of CBE using the Nonaka's SECI model of knowledge creation and sharing. (SECI stands for the four modes of the knowledge creating process, "Socialization (S)," "Externalization (E)," "Combination (C)," and "Internalization (I).") (Rao, Madanmohan, 2003, p. 204).

On his work, Habtamu found that CBE was relatively in a good position of synthesizing explicit knowledge from the existing explicit knowledge to come up with organizational knowledge. He also recognized that the culture of tacit-to-explicit and explicit-to-tacit knowledge sharing was minimal.

According to him, the major barrier to share knowledge among employees of the Bank was lack of time for externalizing existing knowledge and internalizing new knowledge. As a result, he recommended that the Bank is required to arrange appropriate time for enabling knowledge sharing practice among employees.

He used questionnaires (quantitative), semi-structured interviews and observation (qualitative) for data collection. His work was concentrated on primary data collected using the above methods from the employees and managers of CBE. The focus of his research was only in one bank (CBE) out of the then existing banks and he gathered data from selected sample branches of CBE. In this regard, the research result might be confined with only knowledge that exists within CBE. I.e. it might not considered knowledge outside of CBE but within the banking industry. To this end, since the current research work incorporates five sample representative banks, It is my belief that this research will fill this limitation. In addition to this, my research work has a wider scope than only focusing on knowledge sharing practice.

Samuel (2013) on his part addressed the issue of organizational learning on his research work titled “Organizational Learning Assessment: The case of World Learning Ethiopia”. The main objective of Samuel in his study was to assess the nature of organizational learning in World Learning Ethiopia (WLE) and to suggest appropriate organizational model that would fit the company.

He followed both quantitative and qualitative approaches in assessing the organizational learning behavior of WLE. He used purposive sampling to select professional employees of WLE. He believed that the selected employees have more impact in organizational learning. Questionnaire distributed using the organizations e-mail system was the major tool he used to collect the data he needed in his work. He also employed his own observation check list to reflect his own view on his recommendation.

During data analysis, he used SPSS 20 for organizational learning status analysis and a social network analysis approach was applied with Gephi[1] 0.8.2 to come up with more assessment results.

On his work, Samuel found that employees of the organization were highly motivated to share knowledge and the organization played a good role of sharing best practices. However, he also found that the organization was not flexible to new ideas and creativity. Interactions between employees were based on belongingness in a project or department without the involvement of Information Technology. Willingness to share knowledge among staff members is found to be positive but there was no specialized system to facilitate learning.

Based on his findings, Samuel concluded that employees were motivated and active in organizational learning. He also concluded that the organization had not been providing specialized systems that facilitate organizational learning. His recommendation is that organizational initiatives to implement KM Systems that facilitate multilevel organizational learning are necessary to WLE. His future indicating recommendation on the importance of further research on organizational learning is also worth to mention here. In relation to the current research, the work of Samuel pointed out that organizational learning is one of the key KM practices that need special attention.

Holli, Vicky, & Steve, (2008) conducted a research with the purpose of exploring whether using KMS embedded with explicit knowledge impacts novice decision makers' judgment performance and knowledge acquisition differently than using traditional reference materials, like manuals and textbooks, to research and solve a problem.

[1] Gephi is an open-source network analysis and visualization software package written in Java on the NetBeans platform.

Different writers' state that, the impact of the use of KMS on explicit knowledge acquisition is critical given that explicit knowledge provides the foundation for and is the precursor of tacit knowledge development (Alavi and Leidner 2001b; Anderson 1987; Anderson 1990; Anderson 1993; Anderson, et al. 1997; Chi, et al. 1989; Roberts and Ashton 2003). As such, acquisition of explicit knowledge is a critical component in the development and sustenance of expertise (Herz and Schultz 1999).

The study used an experimental methodology to investigate the impact of KMS on decision-making performance and acquisition of explicit knowledge. It has used 188 participants arranged into two groups. A pretest-posttest design was implemented to investigate the acquisition of explicit knowledge focusing on differences between individuals using a KMS (KMS group) versus individuals using traditional reference materials such as office manuals and text books (traditional group).

Results of the study indicated that the KMS group out performs individuals in the traditional group when they have access to a KMS; however, the advantage disappears when the KMS is removed. Additionally, results indicated that both groups acquire various types of explicit knowledge. The traditional group tends to encode more rules in memory, while the KMS group tends to acquire higher-level explicit knowledge which is key to the formulation of tacit knowledge.

It is my belief that the study contributed to the literature by experimentally examining the impact of KMS use on the acquisition of explicit knowledge and addressed the associated knowledge transfer issues. Given the widespread adoption of KMS in professional environments, research examining the impacts of KMS adoption on user performance and expertise development is vital to fully understand the consequences of KMS use. The study reported in the paper has provided evidence on the impact of a KMS on user performance and acquisition of explicit knowledge.

While the research examined whether the use of a KMS impacts explicit knowledge acquisition, future research should examine why that difference occurs. In that the reasons for the difference needs further investigation. How the use of a KMS impacts knowledge acquisition is also an area that needs further research.

Maryam & Dorothy (1999) conducted a study on knowledge management systems: issues, challenges, and benefits at Maryland. The study provided an analysis of the then practices and outcomes of KMS and the nature of KMS as they were evolving in the fifty organizations considered in the study.

The study was an exploratory field work. The researchers undertook a descriptive study of perceptions and practices of KMS in fifty organizations from a variety of industries. They adopted a non-random sample of 109 participants from different industries with different area of specialization. The participants were chief information officers (CIOs), information systems (IS) managers, and general and functional area executives. A questionnaire consisting of both short answers and multiple choices were used to gather information to the study.

The research aimed to contribute an understanding of the perceptions of knowledge management and knowledge management systems, from the perspective of individuals both in organizations with KMS as well as in organizations without KMS. More specifically, the study identified the technologies being used to build KMS, the knowledge domains incorporated into KMS, the desired benefits and expected costs of KMS, and the major concerns regarding KMS.

The findings suggested that interest in KMS across a variety of industries was very high, the technological foundations were varied, and the major concerns revolved around achieving the correct amount and type of accurate knowledge and getting support for contributing to the KMS.

The researchers also drawn the following several observations from the data collected during the study:

- According to the researchers, a broad range of organizations from a variety of industries were looking into KMS, feeling that they could potentially benefit from the KMS.
- Knowledge management systems are multi-faceted. That is, effective knowledge management systems involve far more than just technology, encompassing broad cultural and organizational issues. Firm wide KMS usually require profound cultural innovation. In many organizations, a major cultural shift would be required to change their employees' attitudes and behavior so that they willingly and consistently share their knowledge and insights.
- It is important to try to develop metrics to assess benefits of KMS. Although none of the organizations participating in the survey had conducted formal cost-benefit analysis for their KMS, the respondents felt that development of meaningful metrics for measuring the value, quality and quantity of knowledge is a key factor for long term success and growth of KMS. To this end, knowledge management initiatives should be directly linked to explicit and important aspects of organizational performance (e.g., customer satisfaction, product/service innovations, time to market, cost savings, competitive positioning, and market shares,).
- Integrated and integrative technology architecture is a key driver for KMS. No single dominant technology tool or product for KMS emerged in the study. KMS seem to require a variety of technological tools in three areas: database and database management, communication and messaging, and browsing and retrieval.

The study provided a description of emerging issues and practices of Knowledge Management Systems. The study was intended to offer some insights into needed and relevant research in the area of KMS. In that, it provided the following implications for practice and suggestions for future research from the study findings.

One useful line of inquiry entailed an exploration of KMS-culture fit. Much has been made of technology-structure alignment, but the success of KMS may be more related to organizational culture than to organizational structure as evidenced by the respondents

Another useful line of research would consider methods of making users active contributors to KMS. According to the researchers, the very label of "user" is somewhat inappropriate in the context of KMS, as users are both contributors and beneficiaries of the system. Involving users in design is not sufficient: they must be involved in the consistent maintenance of KMS.
A third potential line of research suggested by the study would uncover the decision making process for determining what knowledge to include in KMS. Finally, an important line of research will consider the issue of KMS benefits.

Hafizi and Hayati, (2006) on their side studied Malaysian Banks' Knowledge management as a new paradigm. The purpose of their research work was to highlight the extent of knowledge management integration in the banking sector. The objective of the research was to introduce a new research model called Banking Knowledge Management Model (BKMM), which encompassed knowledge creation, knowledge retention and knowledge sharing. The researchers have tested to what extent the model was applied by two Malaysian commercial banks, Tiger Bank and Camel Bank. Specifically, they conducted a case study on two Malaysian commercial banks (Tiger Bank and Camel Bank) to illustrate the integration of knowledge management in each component of the model (BKMM).

The contribution of the BKMM was expected to create a culture that promotes and encourages knowledge management to flourish in the banking sector. The model was comprised of four components that are environment, people, and technology and knowledge progress. There are mainly three components in the knowledge progress: knowledge creation, knowledge retention and knowledge sharing.

As the researchers observed in the two case studies, they found that the usage of KM by banks was at the infant stage, although the concept of KM was well accepted in the banks. As KM practices are integrated in banking sector through people and technology, they recommended the desire of wider application of KM.

The two banks under the case study were found to be different in practicing knowledge management methods. Various technologies were used for knowledge management in the two banks. Among these technologies, databases and web-pages are the most common types of technologies used. According to the researchers, the two case studies highlighted that banks which applied KM can enjoy the benefits of having more knowledgeable workers and greater knowledge sharing. This would contribute to greater efficiency and bank performance improvement.

The paper contributed in a number of ways. It presented the extent of application of KM based on the BKMM. It also created an awareness of the benefits of KM integration. The model also served as a guide for bankers to integrate the KM in the bank. The major limitation of the study is that the case study only considers two banks. It is recommended that KM practices be investigated in a large number of banks to validate the model. All in all the study highlighted that KM integration is very important for organization to maintain their competitive advantage.

Manoj (2012) has worked on practice of knowledge management strategy by banking industry of Nepal. Empirical evidence supported the view that Nepalese banks with a knowledge management capability use resources more efficiently (Manoj, 2012).

The study focused on the Nepalese Banking Sector. One of the qualities of the study is that it included both private and public banks of the country in the sample. It basically used primary data and collected the required information from structured questionnaire. The researcher selected the samples randomly and a total of fourteen banks (three from public and eleven from private) were included in the sample. The descriptive statistical tools were used for the detail data analysis and presentation.

There are a number of findings from that study. To mention few of them those are related with the current study:

- The study attempted to confirm the ability of strategic relationship between KM strategy and corporate strategies for success of organizations in Nepalese banking Industry.
- The findings of the study showed that general status of the practices of KMs and Corporate Strategy in the Nepalese banking industry was good.
- Nepalese banks use computer as the major mode of knowledge transfer and have intranet facilities but they are not very effective for the organizations to use them to give remarkable output.
- Based on the other finding of the study, knowledge management strategy and corporate strategy are positively correlated to each other except between codification and cost leadership strategy.

- It was also found that interaction between both strategies needs to be considered for the successful applications of KM initiatives in an organization. There was significant difference between private and public banks in terms of KM practices existing in Nepalese banks.
- The research result indicated that a fit between business and knowledge management strategy are significantly related to better organizational performance through effective management of Human Resource Strategy in organizations.
- Finally, the paper concluded that Nepalese banks that effectively manage knowledge are more innovative and have better performance than the banks that do not take this factor into account. To be the best and to sustain in the market, human resource through Knowledge Management Strategy with effective application with upgrading capability is required (Manoj, 2012).

However, small size of sample, coverage of some banks located in one place only, and participation of officer level staffs were the main limitation and showed that there are still rooms to research in Nepalese banking sectors to know the real situation of KMs alignment effectively. The results might be different if additional business strategies and HR strategies were examined. Thus, the area still has a room to be further investigated.

One of the researches by Özlem, & Duygu, (2013) looked into an empirical research of comparative analysis of knowledge management in banking sector. The study aimed at determining the skill and application level of organizational knowledge management in banking sector, analyzing the components which influence the business knowledge management process and finding whether there are differences between the state and private banks with respect to their components of knowledge management (Özlem, et al., 2013).

A field research was conducted in the province of Gaziantep (Turkey). Population of the research consisted of employees of state and private banks operating in the province of Gaziantep. Main purposes in choosing the banking sector as the population of the study were the high volume of knowledge management applications, intense competition, and priority of customer satisfaction, frequent innovative and creative applications and sector's sensitivity to technological developments. One of the quantitative research methods, survey methodology, is used in the research. Questionnaires distributed to the employees were the major tools used to collect data. Alpha test using SPSS version 17.0 is employed for analysis.

According to the finding of the study, a positive relation on a medium level has been determined between the variables of knowledge management process, leadership in knowledge management, knowledge management culture, information technologies and measurement of knowledge management. When the finding of the study is compared to the literature, the findings were observed to be in conformance with the literature (Lopez et al., 2004; Janz and Prasarnphanich, 2003). Therefore, establishing a strong leadership structure, an organizational culture which supports the knowledge management, an advanced technological infrastructure and an efficient measurement and evaluation system would ensure an efficient knowledge management process and would have a positive influence on the performance of the bank.

Another finding of the study has proven that there are no differences between the state and private banks with respect to the components of knowledge management. The results of the study were expected to contribute both to the related literature and the implementers. Especially in the future research, the relation between knowledge management of the banking sector and the outcomes may be analyzed from different perspectives. In addition to that, studies concerning establishment of the culture of knowledge management in the banking sector are also predicted to contribute to the literature.

Sodiya, Onashoga, Dansu, & Adeleye, (2006) have done on the assessment of knowledge management capabilities of Nigerian Banking Institutions. The area of study was Nigeria and the population was Nigerian banks. In the study, KM capabilities of Nigerian banks were examined. Structured questionnaire was used to capture information on both explicit and tacit knowledge from fifteen employees each from the then existing twenty five Nigerian banks. The employees were selected purposively so as to collect KM data from different levels of employees. The researchers implemented a KM tool using C# to measure and monitor knowledge management capabilities of the banks. The tool developed was used to analyze the data gathered using descriptive statistics.

According to the finding of the study, KM was not a term in wide spread use within the banks because it had not been recognized as a strategic issue for their effectiveness and development. The researchers also found that though the banks possessed both organizational and operational environment for knowledge management, Best practices and lessons learned are not being captured and utilized effectively.

Despite the importance of KM in every business process, it was found out that KM had not been fully exploited or adopted by Nigerian banks. They recommended that KM should be considered as a significant issue towards proper utilization of employees' knowledge and skills.

Considering the importance of KM, relatively little research has been done on its overall role in the banking industry. While there has been wide coverage in the literature of the work done by Stephen Denning (Denning, 2002) at the World Bank and by Hubert St. Onge (Stewart, 1997) at the CIBC in the 1990's and others presented above, a lot of research still have to be carried out so as to put KM in its right place.

2.4. Summary of Related Works

Author	Title	Objective	Methods	Key Findings	Remark
Habtamu Mohammed (2011)	Evaluation of Knowledge Sharing Practice in Commercial Bank of Ethiopia (CBE)	Evaluating the knowledge sharing practice of CBE using the Nonaka's SECI model of knowledge creation and sharing.	Descriptive Research Method with hybrid sampling of stratified, purposive and random sampling techniques is used. Questionnaires semi-structured interviews and observation	CBE was relatively in a good position of synthesizing explicit knowledge from the existing explicit knowledge to come up with organizational knowledge. The culture of tacit-to-explicit and explicit-to-tacit knowledge sharing was minimal.	the research result is confined with only knowledge that exists within CBE
Samuel Mohammed (2013)	Organizational Learning Assessment: The case of World Learning Ethiopia (WLE)	To assess the nature of organizational learning in World Learning Ethiopia (WLE) and to suggest appropriate organizational model that would fit the company	Both quantitative and qualitative approaches wit purposive sampling	Employees of the organization were highly motivated to share knowledge and the organization played a good role of sharing best practices. However, the organization was not flexible to new ideas and creativity.	The research output pointed out that organizational learning is one of the key KM practices that need special attention.
Holli, Vicky, & Steve, (2008)	Use of Knowledge Management Systems and the Impact on the Acquisition of Explicit Knowledge	Exploring whether using KMS embedded with explicit knowledge impacts novice decision makers' judgment and knowledge acquisition differently than using traditional reference materials.	Experimental methodology: pretest-posttest design was implemented to investigate the acquisition of explicit knowledge	The KMS group out performs individuals in the traditional group The traditional group tends to encode more rules in memory, while the KMS group tends to acquire higher-level explicit knowledge.	it experimentally examines the impact of KMS use on the acquisition of explicit knowledge and addressed the associated knowledge transfer issues

Table 2.1. Summary of Related Works

Author	Title	Objective	Methods	Key Findings	Remark
Maryam & Dorothy (1999)	Knowledge Managment Systems: Issues, Challenges, and Benefits	To create an understanding of the perceptions of KM & KMS, from the perspective of individuals both in organizations with KMS as well as in organizations without KMS.	An exploratory field work. And a descriptive study of perceptions and practices of KMS in fifty organizations from a variety of industries	Interest in KMS across a variety of industries was very high, the technological foundations were varied, and the major concerns revolved around achieving the correct amount and type of accurate knowledge and getting support.	The study provided a description of emerging issues and practices of KMS.
Hafizi and Hayati, (2006)	Knowledge Management in Malaysian Banks	To highlight the extent of KM integration in the banking sector. And to introduce a new research model called Banking Knowledge Management Model (BKMM)	A case study on two Malaysian commercial banks (Tiger Bank and Camel Bank)	Banks which applied KM can enjoy the benefits of having more knowledgeable workers and greater knowledge sharing. It presented the extent of application of KM based on the BKMM. It also created an awareness of the benefits of KM integration.	The study highlighted that KM integration is very important for organization to maintain their competitive advantage.
Manoj K. Chaudhary. (2012)	Practice of Knowledge Managment Strategy by Banking Industry of Nepal	Identifying the relationship between KM strategies to the business strategy in the field of banking sectors of Nepal.	Empirical Study with random sampling and descriptive statistical tools for data analysis	Nepalese banks that effectively manage knowledge are more innovative and have better performance than the banks that do not take this factor into account.	The results might be different if additional business strategies and HR strategies were examined.
Özlem, & Duygu, (2013)	A Comparative Analysis of Knowledge Management in Banking Sector: An Empirical Research	Determining the skill and application level of organizational KM in banking sector & analyzing the components which influence the business KM process	One of the quantitative research methods, survey methodology, is used in the research.	A positive relation on a medium level has been determined between the variables of knowledge management process, leadership in KM, KM culture, information technologies and measurement of KM.	The findings were observed to be in conformance with the literature (Lopez et al., 2004; Janz and Prasarnphanich, 2003).

Table 2.1.(Cont.)

CHAPTER THREE

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

3.1. Introduction

This chapter focuses on the description and analysis of the data collected to assess the existing knowledge management practices of the commercial banks in Ethiopia. Most of the related data were collected using questionnaires distributed to employees of the selected banks. Employees of both HR and IT departments of the banks are involved in responding the questionnaires. The responses obtained through questionnaires are supplemented with semi-structured interview and physical observation. The interview was conducted with the managers (managers and assistant managers) of both HR and IT departments of the banks. The analysis is done using Statistical Package for the Social Sciences (SPSS) version 16.0. Frequency, average and percentage values are used for discussion of the data collected from the banks. These measures are suitable and enough for describing the data collected to investigate the existing KM practices. The data gathered using open ended questions and interview are compiled, presented and analyzed using tabular formant.

3.2. Employees Profile

Table 3.1 below shows the total number of employees working in the two departments of each of the five banks that are considered in the study during the research period. This data was collected with a preliminary interview conducted with the managers of HR department of the banks.

No.	Bank Name	Department Name	Number of Employees		
			Managerial (*Manager and/or Assistance Manager*)	Non Managerial	Total
1.	Commercial Bank of Ethiopia	HR Department	3	61	64
		IT/IS/MIS Department	8	70	78
2.	Nib International Bank S.C.	HR Department	2	22	24
		IT/IS/MIS Department	2	29	31
3.	United Bank S.C.	HR Department	3	24	27
		IT/IS/MIS Department	6	25	31
4.	Wegagen Bank S.C.	HR Department	3	42	45
		IT/IS/MIS Department	3	37	40
5.	Bunna Int. Bank S.C.	HR Department	2	17	19
		IT/IS/MIS Department	3	13	16
Total			**35**	**340**	**375**

Table 3.1 Number of Employees working in the two departments of the banks

3.3. Analysis of data collected through questionnaire

3.3.1. Questionnaire Validation

To gauge the acceptance of the questionnaire, ten people from the five banks participated in a pilot study to validate the questionnaires. Those ten people were comprised of one from HR and the other from IT departments of the five banks under consideration. The participants of the pilot study suggested a number of comments on the initial questionnaire. A number of questions were removed and/or merged due to duplication of concepts. In addition to that a regrouping of question is done based on their comments. Moreover some of the questions were not clear in a sense that explanation was necessary. To this end, those questions were rephrased so that it became easily understandable. Except for these changes, the suitability of the questionnaire was accepted by all the pilot study participants. The questionnaire was considered finalized after incorporating all the comments forwarded by the participants.

No.	Bank Name	Department Name	Number of questionnaires:		
			Distributed	Collected	Percentage (%)
1.	Commercial Bank of Ethiopia	HR Department	61	43	70.50%
		IT/IS/MIS Department	70	39	55.70%
2.	Nib International Bank S.C.	HR Department	22	17	77.30%
		IT/IS/MIS Department	29	21	72.4%
3.	United Bank S.C.	HR Department	24	22	91.70%
		IT/IS/MIS Department	25	23	92.00%
4.	Wegagen Bank S.C.	HR Department	42	35	83.30%
		IT/IS/MIS Department	37	28	75.70%
5.	Bunna Int. Bank S.C.	HR Department	17	14	82.40%
		IT/IS/MIS Department	13	10	76.90%
		Total	**340**	**252**	**74.10%**

Table 3.2 Number of distributed and collected questionnaire

Table 3.2 shows the total number questioners distributed and collected from each of the banks included in this research. Questionnaires are distributed to all employees of both HR and IT departments of the banks.

As it can be seen from Table 3.2 the total number of questionnaires distributed was 340 and the returned questionnaires are 252 with a response rate of 74.1%%. Initially the total number of questionnaires collected was 219 with questionnaire response rate of 64.4%. To increase this response rate, redistribution of 121 questionnaires was undertaken for the second round. Out of the redistributed questionnaires, only 33 were recollected which helps to improve the response rate by 9.7%. One limitation of the recollected questionnaires is that it might be answered again by the respondents who have already responded in the first round.

3.3.2. Demographic analysis of the respondents of questionnaire

This section of the survey is concerned with the demographic analysis of the respondents to understand the employees who participate in filling the questionnaire for this research. Respondents were requested to fill their sex, age, their educational level and work experience in terms of years in the banking industry. Accordingly, the profile of respondents is presented as follows:

			Name of Bank					
			Bunna International Bank	Commercial Bank of Ethiopia	Nib International Bank	United Bank	Wegagen Bank	Total
Gender	Female	Count	13	39	13	21	17	103
		%	12.6%	37.9%	12.6%	20.4%	16.5%	100.0%
	Male	Count	11	43	25	24	46	149
		%	7.4%	28.9%	16.8%	16.1%	30.9%	100.0%
Total		Count	24	82	38	45	63	252
		%	9.5%	32.5%	15.1%	17.9%	25.0%	100.0%

Table 3.3 Gender of respondents across bank

As it can be seen from table 3.3, 103 (40.9%) of the respondents are female employees of the banks whereas the remaining 149 (59.1%) are male. The proportions of female and male respondents are somehow similar, except the cases of Wegagen Bank were 17 female with 46 male and NIB international bank where 13 female with 25 male respondents.

			Name of Bank					
			Bunna International Bank	Commercial Bank of Ethiopia	Nib International Bank	United Bank	Wegagen Bank	Total
Respondents Age Group	18-25	Count	9	25	15	9	22	80
		%	11.2%	31.2%	18.8%	11.2%	27.5%	100.0%
	26-35	Count	12	41	19	25	33	130
		%	9.2%	31.5%	14.6%	19.2%	25.4%	100.0%
	>35	Count	3	16	4	11	8	42
		%	7.1%	38.1%	9.5%	26.2%	19.0%	100.0%
Total		Count	24	82	38	45	63	252
		%	9.5%	32.5%	15.1%	17.9%	25.0%	100.0%

Table 3.4 Respondents' age group across bank

83.3% of the total respondents fall below age group less than 35 years. This indicates that there is a large number of young employees in the banking sector. Out of the 252 respondents only 42 (16.7%) are above the age 35 years. As knowledge can be acquired and accumulated through experience and age, those old aged employees might be one source of knowledge specifically tacit knowledge for the industry. Because they may have a lot of experience and exposure throughout their lifetime.

			Name of Bank					
			Bunna International Bank	Commercial Bank of Ethiopia	Nib International Bank	United Bank	Wegagen Bank	Total
Education Level	Diploma	Count	0	9	3	6	1	19
		%	.0%	47.4%	15.8%	31.6%	5.3%	100.0%
	Degree	Count	21	63	34	31	58	207
		%	10.1%	30.4%	16.4%	15.0%	28.0%	100.0%
	Masters	Count	3	10	1	3	4	21
		%	14.3%	47.6%	4.8%	14.3%	19.0%	100.0%
Total		Count	24	82	38	40	63	247
		%	9.7%	33.2%	15.4%	16.2%	25.5%	100.0%

Table 3.5 Respondents' educational level across bank

As it can be observed that the respondents are comprised of 207 first degree holders, 21 masters and the remaining 19 are diploma holders. Out of the 21 master holders, 10 of them belong to Commercial Bank of Ethiopia (CBE). The remaining 11 spreads across the four banks.

			Name of Bank					
			Bunna International Bank	Commercial Bank of Ethiopia	Nib International Bank	United Bank	Wegagen Bank	Total
Work Experience in Banking industry	< 3 Years	Count	9	13	19	3	25	69
		%	13.0%	18.8%	27.5%	4.3%	36.2%	100.0%
	3 - 5 Years	Count	0	18	3	11	6	38
		%	.0%	47.4%	7.9%	28.9%	15.8%	100.0%
	6 - 10 Years	Count	1	40	9	22	0	72
		%	1.4%	55.6%	12.5%	30.6%	.0%	100.0%
	> 10 Years	Count	1	5	0	3	0	9
		%	11.1%	55.6%	.0%	33.3%	.0%	100.0%
Total		Count	11	76	31	39	31	188
		%	5.9%	40.4%	16.5%	20.7%	16.5%	100.0%

Table 3.6 Respondents' banking experience across bank

The work experience of the respondents across the banking industry is presented in table 3.6 above. Out of the 188 respondents who answered this question, nearly56.9% of the employees have an experience of less than 5 years in the banking industry. Whereas 43.1% of the respondents' have experienced more than 5 years. Even though the number of respondents falling above 5 years of experience is less than those falling below 5 years of experience, from KM perspective, those employees with a higher years of experience are good and reliable source of tacit knowledge for the banking industry.

3.3.3. Analysis of questionnaire data regarding KM practices

This section is used to present and analyze the data collected using questionnaire regarding KM practices that exist in the banks. For simplicity, the questions were categorized into a number different categories based on the KM activates and techniques. One thing to note here is that there is no clear boundary between these categories. This is because of the fact that one question may fall into two category. The student researcher (I) categorized each question according to which category it belongs more. A number of questions were raised under each category. The categories, the questions and their corresponding responses are presented as follows. For the first category (Knowledge Sharing), a frequency analysis, average and cross tabulation of the responses to each question will be presented in a tabular format and followed by detailed discussion. For the remaining categories, the results of the analysis will be presented and discussed.

i. Knowledge Sharing

Workers share knowledge or information by regularly updating databases of good work practices, lessons learned or listings of experts (Electronically)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	20	7.9	8.5	8.5
	Agree	44	17.5	18.8	27.4
	Neutral/Don't Know	49	19.4	20.9	48.3
	Disagree	66	26.2	28.2	76.5
	Strongly Disagree	55	21.8	23.5	100.0
	Total	234	92.9	100.0	
Missing	System	18	7.1		
Total		252	100.0		

Table 3.7 Workers share knowledge through updating database electronically

Out of the 234 respondents who have addressed this question (valid responses), 51.7% of them don't confirm the existence of regular updating of the database of lessons learned. Only 18.8% of them agreed the existence of regular updating of the database. 20.9 % of them are unaware on the existence of the database. Based on this fact, though the number of respondents who agreed or strongly agreed (64) were too small compared with the total valid respondents (234), it is an indication for the existence of a regular updating of lessons learned database in those banks. In order to identify those banks with this practice a cross tabulation result of the question is presented in table 3.8. As it can be seen from this table, the regular updating of the lessons learned exists in all the five banks with varying frequency. But CBE, United bank and Wegagen bank have better practice of it relatively.

Table 3.7 also showed that the number of valid respondents with an answer “Neutral/Don't Know”, which constitutes 20.9%, and those with a “missing value” are 67. This figure covers 26.6% of the total sample. This indicates that nearly quarter of the respondents is either unaware of the existence of database or they are not involved in the practice. Thus it is advisable to create the awareness within the employee and also let them to exercise it.

Workers share knowledge or information by regularly updating databases of good work practices, lessons learned or listings of experts							
		Strongly Agree	Agree	Neutral / Don't Know	Disagree	Strongly Disagree	Total
Name of Bank	Bunna International Bank	1	5	9	2	4	21
	Commercial Bank of Ethiopia	5	15	11	18	23	72
	Nib International Bank	4	4	5	12	10	35
	United Bank	6	9	5	16	8	44
	Wegagen Bank	4	11	19	18	10	62
Total		20	44	49	66	55	234

Table 3.8 Bank wide workers practice of updating database electronically

Workers share knowledge or information by Preparing written documentation such as lessons learned, training manuals, good work practices, articles for publication, etc.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	57	22.6	24.1	24.1
	Agree	82	32.5	34.6	58.6
	Neutral/Don't Know	42	16.7	17.7	76.4
	Disagree	34	13.5	14.3	90.7
	Strongly Disagree	22	8.7	9.3	100.0
	Total	237	94.0	100.0	
Missing	System	15	6.0		
Total		252	100.0		

Table 3.9 Workers share knowledge using written documents (paper format)

The results presented in table 3.9 shows that the dominant means of sharing knowledge between employees is using written documents. Majority of the respondents (58.6%) are aware that the existence of paper based knowledge sharing among employees. This implies that employees put their tacit and/or explicit knowledge in to written documentations such as lessons learned, training manuals, and good work practices and share each other.

One can also observe from table 3.9 that 22.7% the total sample were not documenting their tacit and/or explicit knowledge. This might lead to loss of valuable organizational knowledge. This will be one of the major areas that need a lot of work. The management of the banks is required to design a policy regarding documentation works and projects.

As it is depicted in table 3.10 bellow, no bank without written documentation of lessons learned, training manuals, and good work practices in paper format.

Workers share knowledge or information by Preparing written documentation such as lessons learned, training manuals, good work practices, articles for publication, etc.							
		Strongly Agree	Agree	Neutral / Don't Know	Disagree	Strongly Disagree	Total
Name of Bank	Bunna International Bank	10	7	4	2	0	23
	Commercial Bank of Ethiopia	14	32	14	9	10	79
	Nib International Bank	8	12	7	4	2	33
	United Bank	10	16	6	10	1	43
	Wegagen Bank	15	15	11	9	9	59
Total		57	82	42	34	22	237

Table 3.10 Bank wide workers practice of documentation and sharing

Generally, both electronic and proper based documentations of knowledge exist in the banks. This can be used as an organizational memory and also it can be used as a starting point in building an advanced electronic organizational memory.

Workers share knowledge or information by facilitating collaborative work by branch staffs that are physically separated (virtual teams)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	39	15.5	16.4	16.4
	Agree	43	17.1	18.1	34.5
	Neutral/Don't Know	45	17.9	18.9	53.4
	Disagree	80	31.7	33.6	87.0
	Strongly Disagree	31	12.3	13.0	100.0
	Total	238	94.4	100.0	
Missing	System	14	5.6		
Total		252	100.0		

Table 3.11 Workers share knowledge through collaboration across branches

Team work is one means of extracting and sharing knowledge especially tacit knowledge. Collaboration of employees located at different branches can be used as good source of knowledge and also means of sharing and transferring knowledge. In this regard, collaboration of employees found at different branch is not well exercised.

One can observe from table 3.11 that 156 (65.5%) of respondents do not come with proper agreement response for collaboration across branches. However, only 34.5% of the valid respondents evidenced the existence of collaboration among branch employees. Based on the data presented in table 3.12, it is evidenced that collaboration among branch employees is dominant at united bank.

Workers share knowledge or information by facilitating collaborative work by branch staffs that are physically separated (virtual teams)							Total
		Strongly Agree	Agree	Neutral/ Don't Know	Disagree	Strongly Disagree	
Name of Bank	Bunna International Bank	0	14	0	6	3	23
	Commercial Bank of Ethiopia	9	3	27	27	11	77
	Nib International Bank	1	1	10	14	6	32
	United Bank	29	6	0	7	2	44
	Wegagen Bank	0	19	8	26	9	62
Total		39	43	45	80	31	238

Table 3.12 cross tabulation of workers collaboration vs bank

Employees share their knowledge through formal procedures (e.g. progress / work reports, organizational procedures and instructions, etc…) or informal gatherings (e.g. during lunch time and tea break).					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	33	13.1	14.0	14.0
	Agree	120	47.6	51.1	65.1
	Neutral/Don't Know	27	10.7	11.5	76.6
	Disagree	30	11.9	12.8	89.4
	Strongly Disagree	25	9.9	10.6	100.0
	Total	235	93.3	100.0	
Missing	System	17	6.7		
Total		252	100.0		

Table 3.13 Workers share knowledge through formal procedures

Employees can communicate formally using reports and informally during lunch time and tea break etc…. Formal means of communication is usually used to share explicit form of knowledge whereas informal communication usually for tacit form. In this regard, the respondents were asked for their practice in both formal and informal communication as a means of knowledge sharing. Accordingly, more than two third of the respondents come up with an agreement for the existence of formal and informal means of communication within their respective bank. Only 23.4% of the valid respondents have not used both communications as a means of knowledge sharing.

Our bank supports the exchange of data, information and knowledge among organizational units.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	66	26.2	26.2	26.2
	Agree	109	43.3	43.3	69.4
	Neutral/Don't Know	25	9.9	9.9	79.4
	Disagree	34	13.5	13.5	92.9
	Strongly Disagree	18	7.1	7.1	100.0
	Total	252	100.0	100.0	

Table 3.14 Organizational support for knowledge sharing across departments/branches

Different organizational units such as departments, branches, and divisions exist within a bank. Transfer of knowledge between these units is critical for achievement of the banks' objective. As presented in table 3.14 above, nearly 70% of the employees confirmed the existence of knowledge transfer between organizational units. However, question like what sort of knowledge, to what extent and how these knowledge flows across organizational units are not addressed in this research. It is my belief that this will be an area that needs further researches.

Staff can get easily access to the knowledge resources they need.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	16	6.3	6.5	6.5
	Agree	42	16.7	17.1	23.6
	Neutral/Don't Know	27	10.7	11.0	34.6
	Disagree	126	50.0	51.2	85.8
	Strongly Disagree	35	13.9	14.2	100.0
	Total	246	97.6	100.0	
Missing	System	6	2.4		
Total		252	100.0		

Table 3.15 Easy access to knowledge resources

Availability of the existing knowledge resources to employees enables them to use the knowledge in doing tasks and enrich it. It also lets them to add more on it. To this end, respondents were asked whether they easily access the existing knowledge of the organization or not. Accordingly their response is compiled and presented on table 3.15 above. 65.4% the valid respondents were not able to easily access the organizational knowledge resources. Only 23.6% of them are able to easily access it. As it is depicted on table 3.16, employees of both united bank and CBE are can easily access their organizational knowledge resource. Thus, based on this fact it can be concluded that the banks are expected to work on this area and adopt what is used by the other two banks.

What is your opinion that Staff can get easily access to the knowledge resources they need.							
		Strongly Agree	Agree	Neutral/ Don't Know	Disagree	Strongly Disagree	Total
Name of Bank	Bunna International Bank	0	5	0	19	0	24
	Commercial Bank of Ethiopia	1	19	11	34	14	79
	Nib International Bank	0	3	11	16	5	35
	United Bank	15	8	0	11	11	45
	Wegagen Bank	0	7	5	46	5	63
Total		16	42	27	126	35	246

Table 3.16 Cross tabulation of easy access to knowledge resources

Do you think that most staffs share their knowledge openly and willingly?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	17	6.7	7.2	7.2
	Agree	138	54.8	58.2	65.4
	Neutral/Don't Know	9	3.6	3.8	69.2
	Disagree	66	26.2	27.8	97.0
	Strongly Disagree	7	2.8	3.0	100.0
	Total	237	94.0	100.0	
Missing	System	15	6.0		
Total		252	100.0		

Table 3.17 Employees' culture and attitude to knowledge sharing

Employees' attitude towards knowledge and knowledge sharing plays key role in knowledge management. Out of the 237 valid respondents, 155 of them are willing to share their knowledge openly to other members of the bank. This indicates that 65.4% of them consider their knowledge as an organizational asset and not their own source of strength.

In contrast to this, 30.8% of the respondents are not willing to share their knowledge. They consider it as one of their source of strength. Even though majority of the employees are willing to share what they have, the banks are expected to work a lot to change the attitude of those employees that are not willing to share. The bank is also expected to use some techniques to extract the knowledge residing with those employees. According to the cross tabulation result, wegagen bank is the one highly susceptible to this problem.

Bank Name	Strongly Agree	Agree	Neutral/Don't Know	Disagree	Strongly Disagree	Total
Wegagen Bank	4	27	5	20	2	58

Table 3.18 Cross tabulation of employees' culture and attitude to knowledge sharing

People with expert knowledge are willing to help others in the bank.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	111	44.0	47.8	47.8
	Agree	64	25.4	27.6	75.4
	Neutral/Don't Know	41	16.3	17.7	93.1
	Disagree	16	6.3	6.9	100.0
	Total	232	92.1	100.0	
Missing	System	20	7.9		
Total		252	100.0		

Table 3.19 Experts attitude to knowledge sharing

Attitude of expert towards knowledge management plays a vital role than regular employees. This is because of the fact that they are good source of expert level knowledge of the organization. Tacit form of knowledge is usually stored in the minds of well experienced experts. According to the data found in table 3.19, 75.4% of the respondents witnessed that experts are willing to share and help others. Only 6.9% of them are unwilling to do so.

The bank implemented a system to keep the knowledge of employees so that it doesn't loss the knowledge due to staff turnover, retirements, etc.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	20	7.9	9.8	9.8
	Agree	63	25.0	30.9	40.7
	Neutral/Don't Know	19	7.5	9.3	50.0
	Disagree	69	27.4	33.8	83.8
	Strongly Disagree	33	13.1	16.2	100.0
	Total	204	81.0	100.0	
Missing	System	48	19.0		
Total		252	100.0		

Table 3.20 Existence of KMS in the bank

Knowledge can walk out of the organization though staff turnover, retirements and others. Existence of KMS within an organization reduces and ultimately avoids loss of knowledge. A question was forwarded to know the existence of a system to handle knowledge management in the bank. The responses were presented on table 3.20. A cross tabular presentation of the respondents across bank is better way to present this data. Table 3.21 is used for it. According to this data, united bank, CBE and wegagen holds the first three ranks with a total of 25, 21 and 16 employees agreeing for the question respectively.

The bank implemented a system to keep the knowledge of employees so that it doesn't loss the knowledge due to staff turnover, retirements, etc.							
		Strongly Agree	Agree	Neutral/Don't Know	Disagree	Strongly Disagree	Total
Name of Bank	Bunna International Bank	2	6	0	4	12	24
	Commercial Bank of Ethiopia	5	16	9	23	1	54
	Nib International Bank	2	11	0	13	6	32
	United Bank	9	16	4	6	6	41
	Wegagen Bank	2	14	6	23	8	53
Total		20	63	19	69	33	204

Table 3.21 Cross tabulation of existence of KMS in the bank

The bank prepares knowledge sharing sessions to employees with other banks							
		Strongly Agree	Agree	Neutral/Don't Know	Disagree	Strongly Disagree	Total
Name of Bank	Bunna International Bank	1	9	2	3	9	24
	Commercial Bank of Ethiopia	3	29	8	29	7	76
	Nib International Bank	0	22	7	8	1	38
	United Bank	5	16	3	10	4	38
	Wegagen Bank	5	15	7	11	25	63
Total		14	91	27	61	46	239

Table 3.22 Cross tabulation of knowledge sharing across banks

Knowledge sharing within the bank is not enough to have competitive advantage with in the banking industry rather industry wide sharing vital for having industry level knowledge. To address this issue, the respondents were invited to express their filling to the above question presented in table 3.22. 105 respondents have agreed and 107 of them disagreed. Since nearly equal number of employees replied to the question with agreement and disagreement, it would become difficult to conclude on this area. Thus, this recalls for further investigation.

ii. Knowledge Capture and Acquisition

Questions	Strongly Agree	Agree	Neutral/ Don't Know	Disagree	Strongly Disagree	Total
Your bank regularly captures and uses knowledge obtained from internal sources like staff	36	54	40	59	48	237
Your bank regularly captures and uses knowledge obtained from external sources	40	46	31	79	47	243
Your bank regularly encourages workers to participate in project teams with external experts	68	91	38	38	17	252
Employees obtain a good extent of new knowledge from external sources and business partners (e.g. other banks, customers, through seminars, conferences, educational courses and trainings, expert networks).	21	114	10	80	16	241
Employees rely on written knowledge sources (e.g. previously implemented projects documentation, operational procedures, instructions and other documented sources).	70	86	22	37	20	235
Training programs, workshops and seminars are frequently organized for the staff	37	91	23	49	37	237
Employee's Tacit Knowledge (undocumented knowledge)/ (know-how) is properly captured and retained in the bank.	30	23	31	106	49	239
Average	43.14	72.14	27.86	64	33.43	240.573

Table 3.23 responses to knowledge capture and acquisition questioners.

All of the 252 respondents didn't address all questions. Different respondents missed different questions. As it can be seen from table 3.22, only the third question is addressed totally with valied responses. A large number of respondents have agreed and or strongly agreed to an organizational KM capture/acquisition questions. For the last question, more than 77% of the respondents do not agreed. This implies that there acquisition of tacit knowledge of the employees but it is at the infant stage.

iii. Organizational KM Cultures

Questions	Strongly Agree	Agree	Neutral/ Don't Know	Disagree	Strongly Disagree	Total
Staff members stay in office extra hours to work for the bank without any incentive.	20	44	49	66	55	234
There is growing awareness on the benefit of knowledge management in the bank.	57	82	42	34	22	237
The bank is aware of the power and importance of knowledge. I.e. knowledge is seen as a strategic resource.	39	43	45	80	31	238
There is a central coordinating unit for knowledge management in the bank	23	36	29	80	67	235
Average	34.75	50.25	41.25	67	43.75	236

Table 3.24 responses to organizational knowledge culture questioners.

On average 47% the total respondents don't totally agree with the organizational knowledge management cultures raised above. Whereas 36% of the respondents agreed that the mentioned organizational culture exists within the banks.

iv. Knowledge Retention and IT tools

Questions	Strongly Agree	Agree	Neutral/ Don't Know	Disagree	Strongly Disagree	Total
In our bank, IT tools are used to store data on implemented projects, tasks business transactions, employees and customers and activities.	72	69	26	48	23	238
IT tools in our bank are simple to use and have a user friendly interface.	35	107	29	38	26	235
The bank has an effective ICT infrastructure	73	92	31	31	25	252
I use IT tools of the bank to share my knowledge.	33	120	27	30	25	235
Average	53.25	97	28.25	36.75	24.75	240

Table 3.25 responses to knowledge retention and IT Tools.

Table 3.25 above presents the total and average responses to each of the questions. Accordingly the average numbers of respondents that strongly agree and agree are 53.25 and 97 respectively. These respondents constitute 62.6% of the total valied respondents.

v. Training and Mentoring

Questions	Strongly Agree	Agree	Neutral/ Don't Know	Disagree	Strongly Disagree	Total
Provides formal training related to knowledge management practices	17	138	9	66	7	237
Provides informal training related to knowledge management practices	111	65	33	18	5	232
Encourages experienced workers to transfer their knowledge to new or less experienced workers	30	129	38	37	3	237
Encourages workers to continue their education by paying back tuition fees for successfully completed work related courses	43	71	22	65	32	233
Offers off-site training to workers in order to keep skills current	31	96	17	73	29	246
Average	46.4	99.8	23.8	51.8	15.2	237

Table 3.26 responses to training and mentoring.

Off all the participants of the five banks, more than 61% of the employees participated in either formal or informal trainings. It could be a good source for acquiring and sharing knowledge both internally and externally.

vi. KM Barriers

Questions	Strongly Agree	Agree	Neutral/Don't Know	Disagree	Strongly Disagree	Total
There is lack of time and/or resources to concretely share knowledge on a day-to-day basis	41	98	25	44	30	238
Employees in the Bank kept their best ideas for themselves.	48	103	24	51	26	252
Resistance of staff is the major difficulty in implementing KM practices in the bank.	17	138	9	66	7	237
Staff do not make documents available to others	64	46	24	64	34	232
Average	42.5	96.25	20.5	56.25	24.25	239.75

Table 3.27 responses to KM barriers.

Around 58% of the total valid participants agreed for the existence of the four major KM barriers within their respective banks. This doesn't guaranty that these are the only lists of barriers.

vii. KM Policies and Strategies

Questions	Strongly Agree	Agree	Neutral/Don't Know	Disagree	Strongly Disagree	Total
Your bank has a well-documented knowledge management policy or strategy	20	36	28	100	53	237
The knowledge management policy and strategy has been communicated widely to staff	15	24	34	108	59	240
Your bank has a value system or culture intended to promote knowledge sharing	21	73	35	86	35	250
Your bank has policies and programs intended to improve worker retention	25	93	35	60	32	245
The bank's strategy for knowledge management is reasonably clear	22	54	29	109	22	236
Average	20.6	56	32.2	92.6	40.2	241.6

Table 3.28 responses to KM Policies and Strategies

Only 31.7% of the research output regarding to KM policies and Strategies agreed showed for the existence of well documented and clear KM policies and strategies. The remaining 68.3% is either neutral or do not agree for it.

viii. Incentives

Questions	Strongly Agree	Agree	Neutral/Don't Know	Disagree	Strongly Disagree	Total
Your bank specifically rewards knowledge sharing with Monetary incentives	23	52	23	86	51	235
Your bank specifically rewards knowledge sharing with Non-Monetary incentives	20	53	29	98	39	239
In your bank good work and/or innovative practices is rewarded accordingly.	17	65	38	86	40	246
Individuals are publicly rewarded for their knowledge creation, sharing and reuse practices.	17	138	9	66	7	237
Average	19.25	77	24.75	84	34.25	239.25

Table 3.29 responses to Incentives

As presented in table 3.29 above, there exist incentives both in financial and non-financial format. However, its level of applicability is minimal. This can be evidenced by 40.23% of the participants for this research.

3.4. Analysis of data collected through semi-structured interview and observation

A semi-structured interview was conducted with the managers of both HR and IT departments of the banks. The main targets for the semi-structured interview in each of the banks were department managers (Manager and/or Assistance Manager(s)) of both IT and HR departments. They were considered to be the best addressees because they are the decision makers of their banks' operations and could be responsible for any KM activities and the data becomes reliable. In addition to the interview, data is also collected using an observation of the practices found at Nib International Bank, Wegagen Bank and United Bank. The researcher was not able to observe the practices found at the other two banks. This is due to the lack of permission to do so.

Other people with managerial responsibilities but with lower responsibility levels (like division and section heads; team leaders and the like) were included with non-managerial employees to fill a questionnaire. A high accuracy and comprehensiveness of data was sought by addressing/ targeting people from different hierarchical levels of the two departments.

The number of respondents with their department in the bank can be seen in Table 3.28

No.	Bank Name	Department Name	Total Number of interviews:
1.	Commercial Bank of Ethiopia	HR Department	3
		IT/IS/MIS Department	4
2.	Nib International Bank S.C.	HR Department	2
		IT/IS/MIS Department	2
3.	United Bank S.C.	HR Department	2
		IT/IS/MIS Department	4
4.	Wegagen Bank S.C.	HR Department	2
		IT/IS/MIS Department	3
5.	Bunna International Bank S.C.	HR Department	1
		IT/IS/MIS Department	2
		Total	**25**

Table 3.30 Number and Details of Interviewees

A total of twenty five people out of the thirty five managerial staffs were participated in the semi-structured interview. Ten of them were unable to be interviewed. They were not willing to be interviewed. This implies that 71.4% the managerial staff were participated in the interview.

A number of questions were forwarded to each of the participants. Their response to the questions is presented and discussed as follows.

- One of the questions raised asks about the importance of the KMS to the bank. Different respondents replied different answers to it. The responses were summarized and listed below.
    - ✓ To reduce knowledge loss
    - ✓ To avoid duplication of works by different employees
    - ✓ For proper interpretation of data and information
    - ✓ For innovation: to create new banking services to the customers
    - ✓ To enhance the quality of existing banking services
    - ✓ It could be a base for different banking services and programs like National Payment System. Automated Teller Machine (ATM), Point Of Sale (POS), Mobile banking, internet banking and others.
    - ✓ To reduce costs and promote reuse.
    - ✓ For increasing workers' productivity and increasing performance.
    - ✓ To save workers' time for searching information/knowledge
    - ✓ For competitive advantage
    - ✓ For better customer handling
    - ✓ To improve employee skills, and increase benefits
    - ✓ For better staff retention.

- The other question is raised to check the existence of awareness of knowledge as a strategic resource. To this question, 22 of the interviewee have answered that there exists the awareness at the top managerial level.

- The other somewhat related questions are "What sorts of KM practices exist in your bank? And What KM tools are used in the bank? How does your bank share/transfer, use and enrich, create and/or capture knowledge?" They mentioned that their major practice is keeping customers' data using their respective core banking system (CBS). In addition to this, they used different computerized systems to facilitate their day to day operation. To mention few, human resource management system (HRMS), Payroll System, Stock Control Systems (SCS), and other systems. In addition to these systems, three of the banks (Nib International Bank, United Bank, and Wegagen Bank) used different in-house developed and outsourced systems for handling knowledge and support requests from branches. "*Share Point System*", "*ISupport*", "*SysAid*" are those used by United Bank whereas *Nib Support System* and *Wegagen Support Hand* are used by their respective banks. The banks use the systems for recording difficult operational problems, to give solution by cooperation and retain the knowledge for further use. During observation, how the users try to log (create) cases in the systems, how it is handled using the systems, and how these cases are retrieved later time for reuse is observed.

Some of the KM practices mentioned during interview period by the different managerial employees are summarized as follows:

- ✓ First Hand Training: this is a type of training is offered to new employees of the bank by different operational levels IT Department, International Banking Department (IBD), Domestic Banking), Control Department and other departments of the bank. It
- ✓ Employment of Highly Experienced Employees in different sectors specially at management level for the different departments of the bank

- ✓ Offering Educational Incentives: like payment for Diploma and B.Sc. Level education for its staffs
- ✓ Offering Specialized Training by hiring consultants both local and international in critical area of the bank like Oracle Training, CISCO Training, Linux Training. This kind of training may be offered by making an arrangement of commitment agreement. The training may be conducted locally or abroad.
- ✓ Exit Interview:
- ✓ Documentation as a means of retaining different knowledge of the company. Training manuals, system development documentations and others
- ✓ Daily Progress Reporting
- ✓ Assignment of two or more individuals for one task
- ✓ Resource Sharing and task delegation

- The existence of a dedicated organizational unit (department) within the bank can contribute a lot for the proper and effective KM. With the purpose of identifying the existence of this unit two questions (Is there a working knowledge management organizational unit in your bank? and is there a knowledge worker/officer position in your bank?) were asked. According to their response except united bank, all the other four banks do not have any formalized way of managing knowledge of the bank. But this doesn't mean that there is no any means of managing knowledge totally within the bank. For the case of united bank, it has started using two bank wide employee knowledge management systems called *"Share Point System and SysAid"*
- The existence of an ICT architectures and infrastructure throughout the banks is the other key point addressed using interview.

- The major difficulties, that were addressed by the interviewees, for managing knowledge in the banking industry are:

    - Lack of training, Lack of time to learn, Inability to identify the proper tool to use and complexity of systems are the difficulties whereas Retirement, relocation/transfer promotion and employees leaving for better job elsewhere are also factors for influencing knowledge management.

- The last but not the least question forwarded is “Does Employee’s Tacit Knowledge (undocumented knowledge)/(know-how) is properly captured and retained in the bank? in other word are there specific efforts made to capture knowledge of experienced retiring or exiting employees? Their responses are presented here under.

    (a) The bank require interviews for retiring or exiting staff, and we document the results

    (b) When someone is close to retirement, the bank lets the individual to document his/her area of expertise and give training to his/her subordinates.

    (c) The bank also reemployed (or extend the employment of) those retired employees on contract basis.

    (d) The banks also assign qualified people to take over the major duties of those employees.

3.5. Discussion of the Findings

The study reveals the following key findings that are important to improve the knowledge management practices of the commercial banks that operate in Ethiopia and to gain a competitive advantage of the industry through effective utilization of the man power of the bank.

Regarding to Knowledge Sharing

The existence of both paper based and electronic knowledge sharing practices in the banks. However paper based communication is the dominant one. Collaboration among employees of different branches is not well exercised. Relatively employees of CBE and United bank can easily access the existing knowledge resources.

Out of the 237 valid respondents, 65.4% (nearly 2/3) are willing to share their knowledge & consider it as organizational resource. In contrast, 30.8% are not willing to share & consider it as their source of strength

Regarding to Knowledge Capture and Acquisition

There exist explicit knowledge acquisition in the banks but tacit knowledge acquisition is at the infant stage.

Organizational KM Cultures

Few staffs of the banks stay in office extra hours to work. There is also a growing awareness on the benefits of KM both to the bank and the individual employees. However, there is no no centralized coordinating organizational unit for KM in all the banks.

Knowledge Retention and IT tools

The availability of an advanced ICT infrastructure plays key role for effective KM practice. To this end, all the banks considered have well organized ICT infrastructure. The banks use IT tools to store different data. The IT tools are simple to use and some employees use these tools to share knowledge

Training and Mentoring:

Training one of the techniques to acquire, share, transfer and enrich knowledge of employees. In this regard the banks provide different trainings to employees. The banks also encourage experienced workers to share & transfer their knowledge to new and/or less experienced staffs.

Some banks also encourage further education by paying tuition fees and provide off-site training (site visit) to keep skills up-to-date

According to the managers of the banks awareness of Knowledge as a strategic resource exists at top management level. And they mentioned that the existence of KMS is important to the following list of benefits:

- To avoid/reduce duplication of works
- To enhance quality of services, & reduce costs
- To improve employee skills & increase profit of the bank
- For competitive advantage & better customer handling
- For better staff retention

Lack of time, inability to identify proper tool to use, retirement, relocation/transfer and employee turnover are the major difficulties faced by the banks in knowledge management.

Unlike the other banks united bank uses systems called Share Point, SysAid and Isuport for knowledge management and case handling. However, Nib international bank and Wegagen bank use their own in-house developed support handling systems in order to handle any support to the branch users.

First hand training basic training on banking operation and providing specialized training with commitment on Oracle, CISCO, Linux), and offering educational incentives like education fee are mostly applied in all the banks.

Employment of experienced worker especially for higher positions, exit Interview during employee termination, documentation of manuals & procedures and assignment of two or more individuals for one task are the other commonly applied techniques.

CHAPTER FOUR

CONCLUTION AND RECOMMENDATION

4.1. Conclusion

Knowledge can be regarded as a valuable commodity for organizations in modern knowledge economy which can be created internally within organization or externally (Li and Zhang 2010). Knowledge can be classified into two types: tacit and explicit. In the financial sector which contributes a lot to the country's economy, the banking industry needs to realize the importance of knowledge management. In the modern banking industry, bankers not only need to provide the saving, investment, mortgage services. They also need to provide the up-dated information and knowledge to their customers. Managing this knowledge is as important to banking industry as it is for any other kind of organization.

The objective of this study is to investigate and describe the various KM practices used by Commercial Banks in Ethiopia for the successful and uninterrupted operation of the sector. In doing so the study tried to analyze data that have been gathered through both primary and secondary sources. From the findings and analysis of data collected from different banks the student researcher concludes the following:

- Currently, the banks do not have any formalized way of managing knowledge. But this doesn't mean that there is no any means of managing knowledge totally within the banks.
- Availability of the existing knowledge resources to employees enables them to use the knowledge in doing tasks and enrich it. It also lets them to add more on it. In this regard the banks don't have full-fledged computerized system for managing knowledge. Thus, employees don't easily access the existing knowledge. The banks are expected to work on this area.

- It is also observed that regular updating of the lessons learned exists in all the five banks. But relatively CBE, United bank and Wegagen bank have better practice of it.
- Employees' attitude towards knowledge and knowledge sharing plays key role in knowledge management. Most of the employees are willing to share their knowledge openly to other members of the bank. This indicates that they consider their knowledge as an organizational asset and not their own source of strength. It can be concluded that with employees with such attitude, KM is an easy task.
- Based on the findings, accusation of tacit knowledge of employees exists within the banks but it is at the infant stage.
- Majority of the KM practices are not done in a centralized manner. Rather paper based communication is more used to transfer and share knowledge. It is also found out that there is no organizational unit dedicated for KM and also no position for knowledge worker in the organizational structure.

4.2. Recommendations

Based on the findings, the following recommendations are forwarded.

- Implementing KM system will play a key role in facilitating KM practices of the banks. The implementation could be started from one of the simplest case handling tool found in the bank and it could be enhanced and customized based on the requirement of the bank.
- Those banks that do not regularly update the lessons learned are advised to do so.
- Creating awareness on KM at all level is expected
- Managements are advised to design policy regarding the KM practices like documentation of works
- Creating conducive environment for collaboration
- Even if majority of the employees are willing to share what they know, the banks are expected to work a lot in changing the attitudes of those who are not willing to share. The bank is also expected to use different techniques to extract the knowledge (tacit) residing with those employees and keep it on the organizational memory.

4.3. Future Research Areas

- Detailed study of each of KM practices found in the banks are open for research works
- How the banks handle their Customers knowledge is the other research area that needs further study.

References

Ahmed, B. (2006). **A Knowledge Management Implementation Framework for the Libyan Banking Sector.** Salford UK: University of Salford.

Ahmed, B., & Jack, S. (2012). **Assessing the Role of Knowledge Management Processes in Implementing a Knowledge Management System: an Application of the Capability Maturity Model to the Libyan Banking Sector.** Salford UK: University of Salford.

Alavi, Maryam and Leidner, Dorothy, **Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues**, MIS Quarterly, Vol. 25, No. 1, 2001, pp. 36 -107.

Asiyeh, N. (2012). **Analysis the Effects of Employees Knowledge Management on Organizational Intelligence in Banking Industry**. INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS, 524-533.

Bank, U. (2013). Retrieved 08 01, 2013, from **http://www.unitedbank.com.et/default.aspx**

Belete B. (2011). ***Knowledge Discovery For Effective Customer Segmentation: The Case of Ethiopian Revenue and Customs Authority.*** Addis Ababa: Addis Ababa University.

Bhosale, S. T. (2012). **Benefits of Knowledge MAnagement System for Banking Sector.** *International Journal of Computer Science and Communication*, 133-138.

Bontis, Nick; Choo, Chun Wei (2002). **The Strategic Management of Intellectual Capital and Organizational Knowledge.** New York:Oxford University Press. ISBN 0-19-513866-X.

Carlisle, Y. (2002), **Startegic thinking and knowledge management**, in Little, S., Quintas, P., Ray, T. (Eds.), Managing knowledge – An essential reader; pp. 122-138; London: The Open University & SAGE Publications Ltd.

CIO Council. (2001), **Managing Knowledge @ Work, An Overview of Knowledge Management,** Knowledge Management Working Group of the Federal Chief Information Officers Council, August.

Cong, X. & Pandya, K., 2003, '**Issues of KM in the public sector'**, Electronic Journal of Knowledge Management 1(2), 25–33.

Cristof, B., Stefan, S., & Gerold, R. (2007). **Assessing User Acceptance of a Knowledge Management System in a Global Bank: Process Analysis and Concept Development**. Proceedings of the 40th Hawaii International Conference on System Sciences.

Knowledge Management Systems: Issues, Challenges, and Benefits. (1999). *Communications of the Association for Information Systems*, 1-37.

Dalkir, K. (2005). ***Knowledge management in theory and practice***. McGill University.

Davenport, T., Prusak, L. (1998), **Working Knowledge, How Organization Manage What They Know,** Boston: Harvard Business School Press.

Dzinkowski R. (2001). "**Knowledge Management in Financial Services: Leveraging Intellectual Capital to Maximise Shareholder Value**", London: Lafferty Publications Ltd.

Ethiopia, N. B. (2012). ***History of Banking*.** Retrieved 08 01, 2013, from National Bank Of Ethiopia: **http://www.nbe.gov.et/aboutus/index.html**

Faisal, B., Khaldoon, K., & Shaker, A.-Q. (2013). **The Role of Knowledge Management in Banks Sector** (Analytical Study- Jordan). *Interdisciplinary journal of contemporary research in business*, 53-77.

Frost, Alan, "**Knowledge Acquisition", A Knowledge Management Resource Website**, 2011, available at: **http://www.knowledge-managementtools.net/knowledge-acquisition.html**, accessed on March 2011.

Mohammed, H. (2011). **Evaluation of Knowledge Sharing Practice in Commercial Bank of Ethiopia**. Addis Ababa: Addis Ababa University.

Hafizi, M. A., & Nor, H. A. (2006, September). **Knowledge Management in Malaysian Banks**: A New Paradigm. *Journal of Knowledge Management Practice, 7*.

HareyaG/Slassie. (2011). ***Knowledge Sharing Among Employees of Mesfin Industrial Engineering***. Addis Ababa: Addis Ababa University.

Holli, M., Vicky, A., & Steve, G. (2008). **Use of Knowledge Management Systems and the Impact on the Acquisition of Explicit Knowledge.** *Journal of Information Systems*, 77-101.

Jayasundara, Chaminda Chiran. (2008). **Knowledge Management in Banking Industries: uses and opportunities**. Journal of the University Librarians Association of Sri Lanka, Vol. 12, PP.68-79.

Kimiz, D. (2005). ***Knowledge Management in Theory and Practice***. NEW YORK: Elsevier.

Kothari, C. (2004). ***Research Methodology Methods and Techniques*** . New Delhi: New Age International (P) Limited.

Lyons, K.L. (2000), **Using patterns to capture tacit knowledge and enhance knowledge transfer in virtual teams, in Malhotra**, Y. (Ed.), Knowledge management and virtual organizations; pp. 124-143; Hershey: Idea Group Publishing.

ManojK.Chaudhary. (2012). **Practice of Knowledge Managment Strategy by Banking Industry of Nepal.** International Conference on Managment, Humanity and Economics (ICMHE'2012), 87-91.

Maryam, A., & Dorothy, E. (1999). **Knowledge Managment Systems: Issues, Challenges, and Benefits.** Communications *of the Association for Information Systems, 7*, 1-37.

Nantapanuwat, N., Ractham, P., & Kaewkittipong, L. (2010). **An Investigation of the Determinants of Knowledge Management Systems Success in Banking Industry**. World Academy of Science, Engineering and Technology, 588-595.

NationalBankofEthiopia. (2012). Banks. Retrieved 08 01, 2013, from National Bank of Ethiopia: **http://www.nbe.gov.et/financial/banks.html**

Nonaka, Ikujiro, "**A Dynamic Theory of Organizational Knowledge Creation**", Organization Science, Vol. 5, No. 1, 1994, pp. 14-37.

Özlem, Y. U., & Duygu, K. (2013). **A Comparative Analysis of Knowledge Management in Banking Sector: An Empirical Research**. European Journal of Business and Management, 12-20.

Özlem, Y. U., Mustafa, U., & Duygu, K. (2013). **An Analysis in Banking Sector with Knowledge Management Assessment Tool.** International Confrence on Economic and Social Studies (pp. 237-243). Gaziantep, Turkey: University of Gaziantep.

Payne, Judy and Tony, Sheehan, "Demystifying Knowledge Management", available at: http**://www.constructingexcellence.org.uk/pdf/document/KMGuide.pdf**, 1994, accessed on March 2011.

Rasoulinezhad, E. (2011). **Measuring the Role of Knowledge Managment Practices in the Commercial Banks of Iran.** Electronic Journal of Knowledge Management, 353-364.

Sagsan, Mustafa, **"A New Life Cycle Model for Processing of Knowledge Management"**, Second International Conference on Business, Management & Economics in İzmir, Turkey, 2006, pp. 1-9.

Samuel, M. (2013). **Organizational Learning Assessment: The Case of World Learning Ethiopia**. Addis Ababa: Addis Ababa University.

Saunders, M., Lewit, P., & Thornhill, A. (2009**). Research Methods for Business Students fifth edition**. Harlow, England: Pearson Education Limited.

Seyyed, A. A., Mohammad, R. D., & Reza, F. K. (2012). **Analysis of knowledge sharing in banking industry.** Interdisciplinary journal of contemporary research in business, 815-827.

Serrat, Olivier, **Notion of Knowledge Management‖, Asian Development Bank (2008)**, available at: **http://www.adb.org/Documents/Information/Knowledge Solutions/NotionsKnowledge - Management.pdf**, accessed on March 20, 2011.

Sodiya, A., Onashoga, S., Dansu, B., & Adeleye, B. (2006). **An Assessment of Knowledge Management Capabilities of Nigerian Banking Institutions.** Proceedings of the Second Conference on Science and National Development (pp. 138-145). Abeokuta, Nigeria: University of Agriculture.

U.S. Department of the Navy. (2001), **Metrics Guide for KM initiatives**, Version 1.0, Draft 9 May 2001.

Vorbeck, J., Heisig, P., Martin, A., Schutt, P. (2001), **Knowledge Management in a global company – IBM global services**, in Mertins, K., Heisig, P., Vorbeck, J. (Eds), Knowledge Management – Best practices in Europe; pp. 174-185; Berlin: Springer-Verlag.

Wenger, E., McDermott, R., & Snyder, W. M. (2002). **Cultivating Communities of Practice**. In E. Wenger, R. McDermott, & W. M. Snyder, A Guide to Managing Knowledge (pp. 1-283). Boston: Harvard Business School Press.

Yang, C. and Chen, L. C. (2007). **Can Organizational Knowledge Capabilities Affect Knowledge Sharing Behavior?** J. Inform. Sci., 33(1): 95-109.

ZainabAbdulshaheedMohsen. (2011). **The Significance of Knowledge Managment Systems as Financial Decision Making Process**. International Journal of Business and Managment, 130-142.

Annexes

Annex I: Research Questionnaire

Addis Ababa University School of Informatics Department of Information Science

Topic: Knowledge Management Practices of Commercial Banks in Ethiopia

Research Questionnaire

I am conducting a research on the topic "Knowledge Management Practices of Commercial Banks in Ethiopia". It is done as part of the partial fulfillment of Master Degree in Information Science at Addis Ababa University School of Informatics Department of Information Science. This questionnaire is prepared to collect the necessary data in conducting the research.

Objective of the study

The general objective of the study is to investigate and describe the various knowledge management (KM) practices used by Commercial Banks in Ethiopia and to suggest better Industry wide practices for the successful and uninterrupted operation of the sector.

No personally identifiable information will be collected and all information will be combined with other data, analyzed and reported in aggregate. Your responses will be kept confidential at all times, and shall not be used for other purposes other than the intended aim of this research. Your response is very important for the success of this study and it is highly appreciated. I kindly request you to carefully and attentively read all the questions and give your genuine answers to the best of your knowledge. If you have any question about this research generally and the questions specifically, you may contact the student researcher using the following contact:

Name: Habte Reji

E-mail: habtereji@gmail.com

Cell phone: +251-911 19 84 63

A brief introduction

Knowledge management is the systematic process of finding, selecting, organizing, distilling and presenting information. Tacit knowledge is the knowledge we each carry in our heads about how to do things, who to call and the lessons learned through experience. Making it explicit is recording in some media that allows another person to use it. The media can be a complex computer database or a piece of paper. These methods are called knowledge retention strategies.

Note that:

1. No need to write your name
2. Please fill the answer by making "☐" marks
3. Please give more attention and complete as fast as possible
4. Please complete and return it to the data collector found at your bank and department.

Thank you in Advance!!!

Note:

IT = Information Technology IS = Information System/Science

MIS = Management Information System HR = Human Resource

I. <u>Personal Data</u>

1. Your Bank Name:

   ☐Bunna International Bank S.C. ☐Commercial Bank of Ethiopia

   ☐ Nib International Bank S.C. ☐ United Bank S.C. ☐Wegagen Bank S.C.

2. Your Department:

   ☐IT/IS/MIS Department ☐HR Department ☐Other: _____

3. Sex : ☐Male ☐Female

4. Age : ☐ 18-25 ☐ 26-35 ☐ Above 35

5. Your Education level: ☐ Diploma ☐ First Degree ☐ Masters ☐ Above Masters

6. Total Year of experience in the Banking Industry (any bank)

   ☐ < 3 years ☐3-5 years ☐6-10 years ☐Above 10 years

Please assess to what extent the following statements related to knowledge management apply to your bank. Indicate the degree of agreement or disagreement that fits the situation in your bank.

SA = Strongly Agree	**A** = Agree	**N** = Neutral/Don't Know	**D** = Disagree	**SD** = Strongly Disagree

No.	**Question**	**SA**	**A**	**N**	**D**	**SD**
Knowledge Sharing						
1.	Workers share knowledge or information by regularly updating databases of good work practices, lessons learned or listings of experts	□	□	□	□	□
2.	Workers share knowledge or information by Preparing written documentation such as lessons learned, training manuals, good work practices, articles for publication, etc. (organizational memory)	□	□	□	□	□
3.	Workers share knowledge or information by facilitating collaborative work by branch staffs that are physically separated ("virtual teams")	□	□	□	□	□
4.	Employees share their knowledge through formal procedures (e.g. progress / work reports, organizational procedures and instructions, and reports) or informal gatherings (e.g. during lunch time and tea break).	□	□	□	□	□
5.	Our bank supports the exchange of data, information and knowledge among organizational units.	□	□	□	□	□
6.	Staff can get easily access to the knowledge resources they need.	□	□	□	□	□
7.	Most staffs share their knowledge openly and willingly	□	□	□	□	□
8.	People with expert knowledge are willing to help others in the bank.	□	□	□	□	□
9.	The bank implemented a system to keep the knowledge of employees so that it doesn't loss the knowledge due to staff turnover, retirements, etc.	□	□	□	□	□
10.	The bank prepares knowledge sharing sessions to employees with other banks	□	□	□	□	□
Knowledge Capture and Acquisition						
1.	Your bank regularly captures and uses knowledge obtained from internal sources like staff	□	□	□	□	□
2.	Your bank regularly captures and uses knowledge obtained from external sources	□	□	□	□	□
3.	Your bank regularly encourages workers to participate in project teams with external experts	□	□	□	□	□
4.	Employees obtain a good extent of new knowledge from external sources and business partners (e.g. other banks, customers, through seminars, conferences, educational courses and trainings, expert networks).	□	□	□	□	□
5.	Employees rely on written knowledge sources (e.g. previously implemented projects documentation, operational procedures, instructions and other documented sources).	□	□	□	□	□
6.	Training programs, workshops and seminars are frequently organized for the staff.	□	□	□	□	□
7.	Employee's Tacit Knowledge (undocumented knowledge)/(know-how) is properly captured and retained in the bank.	□	□	□	□	□
Knowledge Retention and IT Tools						
1.	In our bank, IT tools are used to store data on implemented projects, tasks business transactions, employees and customers and activities.	□	□	□	□	□
2.	IT tools in our bank are simple to use and have a user friendly interface.	□	□	□	□	□
3.	The bank has an effective ICT infrastructure	□	□	□	□	□
4.	I use IT tools of the bank to share my knowledge.	□	□	□	□	□

No.	Question	SA	A	N	D	SD
Organizational KM Cultures						
1.	Staff members stay in office extra hours to work for the bank without any incentive.	□	□	□	□	□
2.	There is growing awareness on the benefit of knowledge management in the bank.	□	□	□	□	□
3.	The bank is aware of the power and importance of knowledge. I.e. knowledge is seen as a strategic resource.	□	□	□	□	□
4.	There is a central coordinating unit for knowledge management in the bank	□	□	□	□	□
Training and Mentoring: your bank						
1.	Provides formal training related to knowledge management practices	□	□	□	□	□
2.	Provides informal training related to knowledge management practices	□	□	□	□	□
3.	Encourages experienced workers to transfer their knowledge to new or less experienced workers	□	□	□	□	□
4.	Encourages workers to continue their education by paying back tuition fees for successfully completed work related courses	□	□	□	□	□
5.	Offers off-site training to workers in order to keep skills current	□	□	□	□	□
KM Barriers						
1.	There is lack of time and/or resources to concretely share knowledge on a day-to-day basis	□	□	□	□	□
2.	Employees in the Bank kept their best ideas for themselves.	□	□	□	□	□
3.	Resistance of staff is the major difficulty in implementing KM practices in the bank.	□	□	□	□	□
4.	Staff do not make documents available to others	□	□	□	□	□
KM Policies and Strategies						
1.	Your bank has a well-documented knowledge management policy or strategy	□	□	□	□	□
2.	The knowledge management policy and strategy has been communicated widely to staff	□	□	□	□	□
3.	Your bank has a value system or culture intended to promote knowledge sharing	□	□	□	□	□
4.	Your bank has policies and programs intended to improve worker retention	□	□	□	□	□
5.	The bank's strategy for knowledge management is reasonably clear	□	□	□	□	□
Incentives: your bank specifically rewards knowledge sharing with:						
1.	Monetary incentives	□	□	□	□	□
2.	Non-monetary incentives	□	□	□	□	□
3.	In your bank good work and/or innovative practices is rewarded accordingly.	□	□	□	□	□
4.	Individuals are publicly rewarded for their knowledge creation, sharing and reuse practices.	□	□	□	□	□

Thank You Again!!!

Annex II: Interview Question

- ✓ What are the benefits of KMS to your bank?
- ✓ Is the bank aware of the importance of knowledge as a strategic resource?
- ✓ What sorts of KM practices and tools exist in your bank?
- ✓ What mechanisms does your bank use to retain both tacit and explicit knowledge of employees?
- ✓ How does your bank create and/or capture, share and enrich, disseminate or transfer knowledge?
- ✓ Is there a working knowledge management unit and knowledge worker/officer position in the bank?
- ✓ Are there efficient and effective ICT architectures and knowledge infrastructures in place?
- ✓ Does Employee's Tacit Knowledge (undocumented knowledge)/(know-how) is properly captured and retained in the bank?
- ✓ What are the difficulties faced during codifying tacit knowledge? How do you manage to solve those difficulties?
- ✓ Are there specific efforts made to capture knowledge of experienced retiring or exiting employees?

DECLARATION

I declare that this thesis is my original work and has not been presented for a degree in any university.

Habte Reji

_____

Date _____