ADDIS ABABA UNIVERSITY

COLLEGE OF NATURAL AND COMPUTATIONAL SCIENCES

SCHOOL OF INFORMATION SCIENCE

KNOWLEDGE SHARING AMONG EMPLOYEES OF COMMERCIAL BANKS OF ETHIOPIA

By

FITSUM ABEBE

OCTOBER, 2020

ADDIS ABABA, ETHIOPIA

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A Thesis Submitted to School of Graduate Studies of Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of Master of Science in Information Science and Systems (Information Systems Specialization)

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Name and signature of Members of the Examining Board

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Advisor	Signature	Date
_____	_____	_____
Examiner	Signature	Date
_____	_____	_____
Examiner	Signature	Date

Declaration

This thesis has not previously been accepted for any degree and is not being concurrently submitted in candidature for any degree in any university.

I declare that the thesis is a result of my own investigation, except where otherwise stated. I have undertaken the study independently with the guidance and support of my research advisor. Other sources are acknowledged by citations giving explicit references. A list of references is appended.

Signature: _____

Fitsum Abebe

This thesis has been submitted for examination with my approval as university advisor.

Advisor's Signature: _____

Temtim Assefa (PhD)

Dedication

This thesis is dedicated to my great and lovely mother, Desta Kebede. Without her endless love and encouragement I would never have been able to complete my graduate studies. I love you and I appreciate everything that you have done for me.

This thesis is also dedicated to my brother, Biruke Abebe who was there for me throughout this process and gave me lots of support. I'll miss you when I leave, but you know where to find me.

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Abstract

The purpose of this research work was to identify factors influencing knowledge sharing activities in commercial banks of Ethiopia. The research takes place in five commercial banks of Ethiopia. All of the banks are currently in operation. The research units were several departments: Credit Department, Information technology Department, Research and development Department, International Banking Department, Customer service Department, and foreign Department. In this research quantitative research methodology approach applied, and causal research design is used. For the data collection we used the survey questionnaire with a five scale Likert scale. Data was analyzed by statistics methods. The measurement model was assessed and analyzed using Structural Equation Modelling (SEM) with a PLS-SEM application. The results were in line with expectations; organizational and individual factors were very important for employees' intentions to engage in knowledge sharing activities. Whereas Task characteristics, social relations and technological factors were considered to have a less significant impact on knowledge sharing activities. We suggested several solutions to overcome these barriers in order to improve knowledge sharing activities in the work place.

Key-words

Knowledge, Knowledge sharing, Knowledge sharing factors, PLS-SEM, Commercial Banks

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Nowadays, Knowledge is becoming the driving force powering our societies and our economy (Noor & Salim, 2011). In the current global market, knowledge is considered a source of competitive advantage and has become a crucial factor for banking industry (Abdelrahman & Papamichail, 2016). According to (Noor & Salim, 2011) effective management and sharing of knowledge has the power to improve individual's lives and society. As (Spender & Grant, 1996) pointed out knowledge has been recognized as a source of viable benefit and a tool for superior organizational excellence. Based on the knowledge based theory, organizations that values knowledge as a strategic pillar can achieve high profit and decreases operational cost of the organization (Grant, 1996).

Knowledge sharing is a process of interchanging knowledge, skills, information, expertise, experience, intelligence and understanding (Janus, 2016; Wang & Noe, 2010). Effective knowledge sharing between different units overseas has been a challenge for many organizations, as there are so many extraordinary difficulties facing managers outside their organizations along with environmental forces for change, such as globalization, emerging technologies, emerging best business practices, government regulations, politics, competitive global financial markets, limited availability of knowledge workers, and higher worker turnover rates (Cuffe, 2007). Knowledge sharing in an organization is crucial as it will generate awareness, creating of new innovative ideas, provides customer focused services and improves response time as well delivers a better and efficient performances for the organizations (Nadason et al., 2017). Knowledge sharing is a fundamental part in knowledge management because it enables knowledge to be accessible and usable within and between chosen organizations (Dheyaa Noor et al., 2014). As a core component of knowledge management, knowledge sharing plays a vital role in enhancing performance of the organizations in various aspects.

The interest of knowledge management has increased in the last three decades. Especially in the Banking industry, the advancement of Technological innovation and the dynamic nature of the business lead to intense competition among the competent banks. To be well competitive and profitable in their businesses the banks need to effectively managed and utilize their

employee's tacit knowledge. In order to achieve this, there has to implement strategies which will identify the major factors that influence the knowledge sharing as well as the barriers of knowledge sharing's among employees of the banks. This will help the banks to promote their employees to share knowledge in the work place which will finally results in the banks business success. (Birhanu, 2018) noted that, in Ethiopia commercial banks play important primary role as financial intermediaries in the economic growth process, channeling funds from savers to borrowers for investment and thereby helps to fostering the growth and developments of the country.

1.2 Statement of the Problem

Despite the importance of knowledge sharing in building up a firm's organizational knowledge, which eventually improves the firm's competitive edge, there are reasons to believe that employees are not willing to share their knowledge voluntarily (Pangil & Nasurddin, 2010).

Most often knowledge is shared within an organization implicitly, out of sight, undervalued and underused. Often, it leaves the building when the employees walk out of the company along with them (By et al., 2005).

Communication and teamwork relate inevitably to social interactions and knowledge sharing. In banks, knowledge shared among employees can facilitate knowledge creation and innovations (Filieri & Alguezaui, 2014). However, Commercial Banks in Ethiopia have been facing key challenges regarding knowledge sharing's in the workplace. The major factors affecting Knowledge sharing among employees in the organizations includes Job Insecurity, wishing for higher positions and incentives, lack of time and lack of trust. Due to such a problem, the commercial banks and the financial sectors in Ethiopia suffer from getting the benefits of employees' knowledge sharing in terms of productivity, effectiveness, profitability and customer satisfaction.

According to Hareya (2011) today, organizations are dealing with the concept of sharing and some believe that sharing what you have is important, but most individuals especially in developing countries like Ethiopia do not agree with this idea, because there is fear of losing their power position, incentive and respect if they allow their knowledge to be used by others. The problem of knowledge sharing may also arise from the culture, infrastructure and management problems of organizations.

To create an effective knowledge sharing process, employees should enjoy high willingness and ability and should be inappropriate job security (Mehrizi, 2016). However, employees are not

even willing to share their tacit knowledge due to fear of losing their jobs and uncertain on their job status. Research on knowledge sharing in particular and knowledge management, in general, has become one of the hot issues. One of the critical issues to increase the organizational capability to use their knowledge resources is by increasing knowledge sharing interactions. Researchers identified a list of factors that promote knowledge sharing among individuals in the workplace. Among the factors includes learning orientation and social relation are the major ones. However, no one best solution is replicated in different contexts. Knowledge is a social construct that is affected by contextual factors. This is identified as the main research gap in the current literature to previous studies to solve knowledge sharing problems in our research case. Although there are some studies on knowledge sharing for commercial banks, those studies have limitations to be replicated to other contexts (See Chatzoglou & Vraimaki, 2009; Tan et al., 2010). Besides the researchers also suggested further research including extending and validating the previous researches that were not considered in their research. Knowledge sharing is still a challenging task for the Bank because knowledge is intangible assets which are residing in employees mind and it is difficult to transfer from one place to other (Assefa, 2014).

Despite all the above-mentioned major knowledge sharing challenges facing the commercial banks of Ethiopia, there are few scholarly works done in Ethiopia on knowledge sharing in commercial banks. (Assefa et al., 2014) developed a knowledge sharing model for commercial Bank of Ethiopia. This research was conducted using qualitative case study research methodology. The study is not generalizable to other commercial Banks of Ethiopia. The researcher recommended to do similar research with survey research taking larger sample size to validate their research findings. This research is undertaken to fill this research gap. The research will have also contribution to develop a knowledge sharing theory for commercial banks.

It is to this concern that; this study sought to fill the research gap by investigating the factors influencing knowledge sharing in commercial banks of Ethiopia by employing a quantitative research approach with taking of a large number of sample sizes.

This study will attempt to answer the following major research question.

- What are the factors that influence employee's knowledge sharing characteristics in Commercial banks of Ethiopia?

1.3 Objective of the Study

1.4.1 General Objective:

- The Main Objective of this study is to identify the factors that influences knowledge sharing characteristics among employees of commercial banks in Ethiopia.

1.4.2 Specific Objectives:

- To validate existing knowledge sharing model for commercial banks.
- To investigate how knowledge sharing factors affect employees' knowledge sharing characteristics in commercial banks of Ethiopia.
- To quantify the extent of influence of different knowledge sharing factors on employee's knowledge sharing characteristics.
- To recommend further research works on knowledge sharing in commercial banks.
- To recommend design or concepts for the development of knowledge management for commercial Banks.

1.3 Significance of the Study

Research on knowledge sharing among employees of commercial banks in Ethiopia will contribute a lot to the knowledge sharing research paradigm.

This research will have a great contribution for practitioners who are working in the banking sectors in the fields of enabling and promoting knowledge sharing among employees in the workplace. The study also helps practitioners for devising strategies that are aligned with the business strategies of the organizations. The study will also validate quantitatively existing knowledge sharing theoretical framework for knowledge sharing among employees of commercial banks of Ethiopia, which will help the banks to identify and utilize the major factors influencing knowledge sharing that will, in turn, facilitate and promote the business successes of the banks.

The study conducted on private commercial banks of Ethiopia on knowledge sharing provides several advantages such as improve the speed and quality of services that are likely to be relevant and applicable across commercial banks of Ethiopia. Furthermore, this research will have a great contribution for knowledge sharing theory by validating existing claims on knowledge sharing.

In addition to this, this study has a significant contribution of extending existing knowledge sharing theories to be generalizable to developing economies. In this regard, it is hoped that this study would make a significant contribution towards the existing body of knowledge in the field of knowledge management specifically in the commercial banks of Ethiopia.

1.4 Scope of the Study

The scope of this study is mainly focused on individual-level knowledge sharing practices among employees of commercial banks in Ethiopia. Other types of knowledge sharing practices such as organizational, and inter organizational types of knowledge sharing practices are not the focus of the study. The study is considering the selected private commercial banks of Ethiopia as the research participants. This includes Nib International Bank, Dashen Bank, Awash International Bank, United bank of Ethiopia and cooperative bank of Oromia. The sample has been selected which concentrated numbers of the respondents in five private commercial banks of Ethiopia to validate and quantify the results obtained from the variations of variables through a survey questionnaire. The study is focused on the selected departments these are International Banking Department, Credit Departments, foreign banking Department, research and development Department, Customer service departments and information technology department, of the banks.

1.6 Organization of the remaining chapters

The research is organized in which chapter one gives an overview of background of the research and the importance of knowledge sharing in the commercial banks of Ethiopia. The objectives of the research and the problem statement are discussed to give a direction of the study. It also illustrates the key research questions, the significance of the study and also the scope to provide rationale of conducting the study.

Chapter two reviews the literature and conceptual framework done on knowledge sharing in which its focus on the knowledge sharing among employees of commercial banks in Ethiopia. Chapter three explains the key methodological issues and the data analysis of the study. This will include a research model, theoretical framework, statement of the research hypotheses, population and sample, the unit of analysis and questionnaires design. Chapter four deals with actual analysis of the collected datas using different data analysis tools and the findings of the analysis results will be addressed. Chapter five discusses with conclusion and recommendations for research work.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the different aspects of literatures regarding to the knowledge sharing activities among employees of commercial banks of Ethiopia. Detail literature reviews about knowledge, knowledge sharing, knowledge sharing models, knowledge management will be discussed accordingly. Furthermore, review of related literatures on previous empirical researches conducted on knowledge sharing's in the commercial banks will be explained. Following that discussion, the limitations of related works on the empirical researches identified. Finally, selection and adoption of the most appropriate knowledge sharing model proposed. Followed by identifying of the research gap that this study is going to fill as a research contribution.

2.2 Knowledge

2.2.1 Overview of Knowledge

In the recent times, the importance of knowledge in the world overall economic impact becomes increasing from time to time. Knowledge is considered to be fundamentals like other production factors, and considered as the primary assets for the creation of capability in the organization's overall performance and effectiveness. According to (MOHAJAN, 2019) knowledge has been gaining too much attentions in the organizations in the last decades. (Poul et al., 2016) a company can be effective if it is working intensively to manage and effectively use the knowledge of human capital and as well the tacit knowledge embedded on the individual minds. This could lead every companies to become a knowledge based which are strived to achieve sustainable success and productivity.

Because of the above-mentioned realities and facts, organizations are highly interested in the importance of knowledge that their employees acquired (Plazas, 2013). Organizations are recently struggled to exploit the knowledge of their internal staffs and to provide the best outputs to their external customers and stakeholders. A study by (Anwar & Prasad, 2011) shows that attempts to capture and leverage a firm's knowledge resources have become a major driver to the success of any organization.

A deep analysis by (Pei, 2008) showed that for an organization to be more successful and to sustain in the business for a long period of time, organizations has to give more attentions to the creation and innovations of knowledge which is acquired by their employees. To sum up, a deep investigation on organizational effectiveness and efficiencies explained in detail that for an organization to remain competent and profitable, especial considerations has to be given for the knowledge hidden in the organization and maximum effort needs to exert to exploit the knowledge residing in individual minds (Raguž & Peronja, 2015).

2.2.2 Definition of knowledge

There are a number of definitions forwarded by different authors regarding about knowledge, among the most popular definitions of knowledge are. (Bulan & Sensuse, 2013) defined knowledge as a dependency, talent, expertise and knowledge received from the experience, education or through a mastering technique. (Davenport et al., n.d.) Also defined knowledge as a mix of outlined experience, values, related information, and expert understanding that offers a framework for assessing and combining new practices and information. Another definition by (Anwar & Prasad, 2011) explained knowledge as a well-thought-out to be information that has explanation and connotation attached to it, adding an extra layer of intellectual analysis. On the other hand, knowledge is an intangible asset, and its administration is more complex than administrating information or any other physical resources such as equipment, assets, industrial foundations, and the like. Consistent with them Knowledge is a human expertise of something special and important which received through gaining knowledge of and enjoy. It can be concluded that knowledge is a group of facts that has been gained through learning and experiences.

2.2.3 Types of knowledge

Most literatures pointed out that, there two types of knowledges. Polyani (1962) explained that, Depending on its natures and characteristics knowledge can be classified into Tacit and explicit. (Ipe, 2003), also elucidated the characteristics of knowledge to exchange and transfer consists of the value of the knowledge and (Nonaka & Takeuchi, 1995) identified this value of knowledge as a tacit and explicit knowledge: Tacit and explicit knowledge are the major important categorization of knowledge (Nonaka and Tekeuchi 1995; Polanyi, 1962).

Tacit knowledge is the kind of Knowledge that is difficult to transfer to another person using writing or expression. The notion of tacit knowledge as discussed by (Takeuchi, 2006) is highly

personal and hard to validate, making it a challenging task to transfer or to share with others. Nonaka (1995) prolonged the observation of tacit knowledge nonetheless in addition by identifying out practical and reasoning dimensions. The reasoning factor turned into related to the idea of mental fashions, which contained the ethics, opinions and standards that enabled people to make a sense of belongings. The practical thing includes competencies and knowledge. Nonaka (1995:60) also supposed to be the transfer of tacit knowledges become an act of '…instantaneous dealings of difficulties', in comparison to the transfer of explicit knowledge which is particularly about prior incidences. Alternatively, tacit knowledge is quiet difficult to describe and ratify (Nonaka and Tekeuchi, 1995). According to Nonaka and Tekeuchi (1995) tacit knowledge is originate in individuals' minds and opinions and very challenging to organized. Tacit knowledge is difficult to transfer or share than explicit knowledge (Ipe, 2003; Sazali et al., 2010). According to Marzana et al., (2010), the most pressing issues in an organization today is how to capture, codify employee's tacit knowledge. Examples of tacit knowledge are insights, intuitions, hunches, ideas and visions. In the nutshell, Fatt and Khin (2010) symbolized that the change of tacit knowledge to explicit knowledge would guide to effective organizational knowledge creation and learning culture. Whereas explicit knowledge may be organized into manuals, procedures and written documents for example while tacit knowledge is a nonverbalized, intuitive and unarticulated knowledge which resides in the minds of the human beings.

Explicit knowledge is the kind of knowledge that is interconnected in a proper and logical way (Nonaka and Tekeuchi, 1995). Explicit knowledge is knowledge related to information and easy to articulate (Nonaka and Tekeuchi, 1995). Explicit knowledge can be found in manuals, drawings, audios, and computer programs. Explicit knowledge is easy to be captured, manipulated and assessable.

2.3 Knowledge Sharing

Knowledge sharing is a key part of knowledge management is still very little empirical research on the factors that impact the effectiveness of the research is an assumption we have different definitions and messages from concept to "share" to the provide. "Adam Bianchi "one of the knowledge management analysts said often your value to an organization where you know something that others do not (Mahmudi, 2016). Even if knowledge sharing is a single most important notion in the knowledge management discipline, it is a process through which knowledge is communicated among people and members of an organization. Knowledge

sharing is a challenging activity, however it is the cause, basis and underpinning pillars to set organizational policy and strategies (Riege, 2005), so it has a great contribution to the effectiveness and success of the organization through enhancing competitive advantage. Therefore, properly identify and eliminate or limit the hinders of knowledge sharing factors is necessary to create a knowledge sharing organizations.

Knowledge sharing as one of the major processes in the knowledge management discipline it has varieties of definitions, characteristics and features. Knowledge sharing explained as the practices through which knowledge such as information, individual technical knowledge, or capacity is inter communicated between individuals. Similarly (Lin, 2007) explained knowledge sharing as individuals sharing organizationally relevant experiences and information with one another. Although knowledge sharing is neither given nor essential in advance for a task, it meaningfully increases the capability of an organization, and decreases unnecessary time wasted through attempts. Moreover (Chang et al., 2005) pointed out that Knowledge sharing throughout the organization enhances existing organizational business processes, introduces more efficient and effective business processes and removes redundant processes.

Even if, knowledge sharing helps an organization to be more competitive in the market, resistance to share knowledge will create survival issues for an organization. Therefore, predicting the intention to share knowledge has to be seriously recognized as a critical issue to both academia and the business community, and several useful theories for studying such an intention have been proposed. (Zheng, 2017) clearly defined that Knowledge sharing is mainly impacted by different factors: Organizational, group and individual factors; some of them have a significant effect on knowledge sharing, and some will not.

In the knowledge sharing process there are two types of groups involved, the one which gives and the one which receives. The sender is assumed to be a knowledge owner and the other party is believed to be the recipient of knowledge. Most of the time the sender will retain the knowledge after sharing the knowledge to the recipient. (Abdelrahman & Papamichail, 2016) pointed out that Knowledge sharing clearly cannot happen unless there is a positive attitude that will associate the senders and the receivers.

In his discussion on the knowledge sharing, Connelly (2000) defined knowledge sharing as the exchange of knowledge, or the characteristics that help others with knowledge. Knowledge sharing refers to the movement of knowledge between individual in order to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures.

From the literature review, different knowledge sharing journals and from the above definition of knowledge sharing: we can sum up the basic common characteristics of knowledge sharing would include:

- "*Knowledge sharing is a major individual character;*
- *Knowledge sharing is a voluntary, positive, behavioral awareness;*
- *Knowledge sharing is affected by contextual factors such as legal, ethical standards and code of conduct, habits;*
- *The knowledge sharing results in joint ownership of knowledge by two or more parties*".

Therefore, in order to create a harmonious knowledge sharing culture in the organization, the organization must provide a knowledge sharing environment which will encourages individuals to participate in the knowledge sharing activities. Some firms provide rewards to promote and encourage individuals' initiations until it becomes the culture of the organizations. At the same time, other organizations deploy information technology led knowledge repositories in order to facilitate their employees to engage in the knowledge sharing activities. Many organizations have tried utilizing reward systems to encourage employees to share knowledge with their co-workers (Lin, 2007).

Knowledge sharing characteristics also can be divided into full knowledge sharing and partial knowledge sharing (Ford, Staples, 2010). Full knowledge sharing is characterized by intentions to fully share, whereas partial knowledge sharing is characterized by knowledge uniqueness, interpersonal distrust, and perceived value of knowledge (Garicano, Posner, 2005).

The knowledge management literature identifies two ways of sharing knowledge in inter-firm relations; namely exploitation, when firms deploy existing knowledge to create value; and exploration, which occurs when companies engage in learning activities aimed at the development of entirely new products and services, such as breakthrough innovations. As a result of this organizations benefited and gain a competitive advantage through learning and innovativeness.

2.4 Knowledge Sharing Models

There are a number of knowledge sharing models designed by different authors. In this section we discuss the widely accepted and popular knowledge sharing models.

2.4.1 Von Krogh and Roos Model

The von Krogh and Roos model of organizational epistemology (1995) is the first model that precisely differentiates between individual knowledge and social knowledge. This model, analyzes the following aspects: Why and how the knowledge gets to the workers of a company Why and how the knowledge arrives at the organization What does knowledge mean for the workers as well as the organization What are the barriers of organizational knowledge management In their organizational model, knowledge is to be found both in the mind of the people and in the links between them. This model examines the nature of knowledge management from the perspective of Staff members Communication and connection Organizational structure and layout Network between members and Management of human resources the above five factors create issues that can prevent knowledge management strategies.

2.4.2 Nonaka and Takeuchi

The Nonaka and Takeuchi model of KM has its base in a universal model of knowledge sharing paradigm. There are four different modes of knowledge conversion in the Nonaka and Takeuchi model of knowledge conversion (SECI). Their model proposed four ways that knowledge types can be combined and converted, showing how knowledge is shared and created in the organization. Socialization (tacit to tacit) i.e. Indirect way, Externalization (tacit to explicit) i.e. Indirect to Direct way, Combination (explicit to explicit) i.e. Direct way, and Internalization (explicit to tacit) i.e. Direct to indirect way.

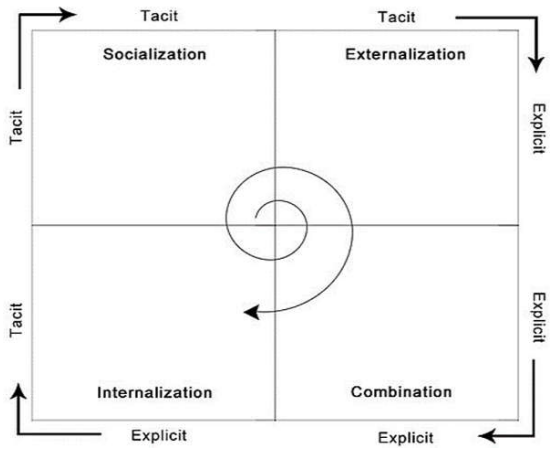

Figure 1.1 The SECI model

Socialization Tacit to tacit: It is the technique of sharing tacit knowledge through observation, imitation, practice, and participation in formal and informal communities and groups. This process is basically preempted by the creation of a physical or virtual space where a given community can interact on a social level

Externalization Tacit to explicit: Is the technique of expressing tacit knowledge into explicit concepts. As tacit knowledge is highly internalized, this process is the key to knowledge sharing and creation.

Combination Explicit to explicit: Is the technique of integrating concepts into a knowledge system. Some examples or cases would be a synthesis in the form of a review report, a trend analysis, a brief executive summary, or a new database to organize content.

Internalization Explicit to tacit**:** Is the technique of embodying explicit knowledge into tacit knowledge.

2.4.3 Choo Sense-Making KM model

The Choo Sense-Making KM Model (1998) basically focuses on these three interrelated concepts: Sense Making, Knowledge Creation, and Decision-making skills. These three highly interconnected processes play a major role in the unfoldment of the organization's knowledge vision; it's potential to knowledge creation and its commitment into taking knowledge creation to the utmost consequences. Sense making its long-term aim is the warranty that organizations will adapt and continue to prosper in a dynamic and complex environment through activities of prospecting and interpretation of suitable information enabling it to understand changes, trends and scenarios about clients, suppliers, competitors and other external environment actors. Knowledge Creation It is a process that allows a company to create or acquire, organize and process information in order to generate new knowledge through organizational learning. The new knowledge obtained, allows company to develop new abilities and capabilities, create new products and new services, improve the existing ones and redesign its organizational processes. Decision making the Company must choose the best option among those that are plausible and presented and pursue it based on the organization's strategy. Decision making process in companies is constrained by the bounded rationality principle. This model focuses on how informational elements are selected and fed into organizational actions.

2.4.4 WIIG Model

Karl Wiig KM model (1993) marks the basic principle which says, in order for knowledge to be useful and valuable; it must be organized and synchronized. Some essential dimensions in

the WIIGS KM model are: Completeness Connectedness Congruency and Perspective and purpose **Completeness** − It describes how much relevant knowledge is available from a given source. Sources vary from human minds to knowledge bases (like, tactic or explicit knowledge). First of all, we have to make sure, that the knowledge is complete if all the information available on the subject is there but if no one knows of its existence, they cannot make use of this knowledge. **Connectedness** − It briefs about the well-understood and well-defined relations between the different knowledge objects. Most knowledge objects are connected to each other, the more connected a knowledge base is then the more consistent the content and the greater its value. **Congruency** − A knowledge base congruent when all the facts, concepts, perspectives, values, judgments, and relational links and connections between the objects are consistent. Most knowledge content do not meet such ideals. **Perspective and Purpose** − It is a technique through which we know something but from a particular point of view for a specific purpose. We organize much of our knowledge applying to the dual dimensions of perspective and purpose. This model attempts to define different levels of internationalization of knowledge and therefore could be seen as a further refinement of the fourth Nonaka and Takeuchi quadrant of internalization.

2.4.5 Boisot I-Space

This model is based on the key concept of information which is good and that is different from a physical asset. Boisot differentiates information from data by emphasizing that information is what an observer will extract from data as a function of his or her expectations or prior knowledge. Boisot's model can be seen as three-dimensional cube with the following dimensions: From uncodified to codified from concrete to abstract from undiffused to diffused He proposes a Social Learning Cycle (SLC) that adopts the I-Space to model the dynamic flow of knowledge through a series of six phases: **Scanning** − Wisdom is gained from generally available or diffused data. **Problem-Solving** − Problems are solved offering structure and coherence to these insights as knowledge becomes codified. **Abstraction** − The newly codified wisdom is generalized to a wide range of situations as knowledge becomes more abstract. **Diffusion** − the new wisdom is shared with a target population in a codified and abstract form as knowledge becomes diffused. **Absorption** − The newly codified insights are applied to a variety of situations generating new learning experiences as knowledge is absorbed and produces learnt character and so becomes uncodified or tacit. **Impacting** − Abstract knowledge becomes fixed in concrete practices, for example in artifacts, rules or character patterns as knowledge becomes concrete. The Boisot's model considers companies as living organisms.

Their process of growing and developing knowledge assets within companies is always changing. This means that companies need to adopt a dynamic KM strategy which accommodates the dynamic nature of the organizational learning cycle.

2.5 Knowledge Management (KM)

2.5.1 Overview of Knowledge Management

Knowledge management is one of the "hottest" terms in organizations recently. Knowledge management is the process of generating value from an organization's intangible assets. It is further explained as the initiations of knowledge management is to create a process of valuing the organization's intangible assets in order to best exploit knowledge internally and externally. Through the systematic management of an organization's knowledge assets, organizational knowledge value is created, which enables organizations to sustain in competitive advantages.

Knowledge Management also refers to identifying and exploiting the collective knowledge in an organization to help the organizations produce the valuable wealth from its intellectual capital or knowledge primarily based resources. According to Becerra-Fernandez et al., (2004), the effect of knowledge management on organizations includes job satisfaction, increased return on investment, competitive advantage and improvement of the process of production

Therefore, according to (Davenport et al., n.d.) the main aim of knowledge management is to make knowledge visible and to show the role of knowledge in an organization; or to develop a knowledge-intensive culture by encouraging and aggregating characters such as knowledge sharing and proactively seeking and offering knowledge; or to build a knowledge infrastructure and encouragement to interact and collaborate.

2.5.2 Definitions of Knowledge Management (KM)

Knowledge management consists of the initiatives, processes, strategies, and systems that sustain and enhance the storage, assessment, sharing, refinement, and creation of knowledge. Knowledge management is essentially about getting the right knowledge to the right person at the right time. (Ipe, 2003) described knowledge management as the process of disseminating information to the right people at the right time and making good use of the knowledge resources. Knowledge management may also include new knowledge creation, or it may solely focus on knowledge sharing, storage, and refinement. Similarly (Girard & Girard, 2015) defined Knowledge Management as the process of creating, sharing, using and managing the knowledge

and information of an organization. Another definition by (Davenport et al., n.d.) explain knowledge management as the act of capturing, storing, sharing and using knowledge effectively and efficiently in the organizations. Consistently (Serrat, 2008) defines knowledge management the explicit and systematic management of processes enabling vital individual and collective knowledge resources to be identified, created, stored, shared, and used for the benefit of the organization. In similar way knowledge management can be defined as the set of interrelated activities which comprises of knowledge creation, capturing, storing, processing, dissemination and reuse of knowledge among employees in the organizations.

Knowledge management, therefore, deals with creating, securing, capturing, coordinating, combining, retrieving, and distributing knowledge. Knowledge management deals with the conceptualization, review, consolidation, and action phases of creating, securing, combining, coordinating, and retrieving knowledge.

Specific knowledge management activities help focus on organization on acquiring, storing and utilizing knowledge for problem solving, dynamic leaning, strategic planning and decision making. It also prevents intellectual assets from decay, adds to firm intelligence and provides increased flexibility.

2.6 Knowledge Sharing in Commercial Banks

There are several studies conducted on knowledge sharing in financial institutions which investigates the factors that influence employee's intention to engage in knowledge sharing activities. (Mehrizi, 2016) examined the relationship between job security and knowledge sharing character with the mediator of organizational culture in ayandeh bank. The research findings indicated that there is a significant relationship with the severity of ($p = 0.00$, $r = 0.51$) between organizational culture and knowledge sharing characteristics. Further, a significant relationship with the severity of ($p = 0.00$, $r = 0.42$) exists between organizational culture and job security. Also, the results demonstrated that there is a significant relationship with the severity of ($p = 0.02$, $r = 0.32$) between knowledge sharing characteristics and job security. Overall, the status of organizational culture and knowledge sharing is at an intermediate level from the viewpoint of the staff.

(Resource et al., 2017) sought to determine factors influencing knowledge sharing practices in the commercial banks in Kenya. The findings of the research indicated that there exists a positive

linear relationship between organizational Culture and Knowledge sharing practices. Results indicate that there exists a positive linear relationship between organizational structure and Knowledge Management practices. This is evidenced by an odds ratio of 28.988. The relationship is significant as shown by a p value of 0.0113. Results indicated that there was a positive and significant correlation of 0.759 between Information technology and Knowledge management practices. Results indicate that there exists a positive linear relationship between Organization Leadership and Knowledge Management Practices. This is evidenced by a regression coefficient of 125.198. The relationship is significant as shown by a p value of 0.0058.

The study recommends that commercial banks in Kenya should continue investing in leadership as doing so would improve their knowledge sharing practices. In addition, commercial banks should adopt more flexible structures that support knowledge acquisition, dissemination and storage. The study advocates that the cultural orientation of the organizations should be such that it supports the perception of knowledge management practices. Furthermore, commercial banks should continue investing in Information technology as doing so would improve the knowledge management practices.

(Lavanya, 2012) the researcher examined the issue on how and to what extends trust, commitment and motivation can facilitate tacit knowledge sharing in Bahrain banks. The findings of the research Results show that these antecedents have positive and significant impact on tacit knowledge sharing. Accordingly, some recommendations have been provided to managers and researchers.

(Kinyua, 2015) examined the influence of knowledge transfer and knowledge sharing on the performance of Commercial Banks in Kenya. The findings of the study described that knowledge transfer and knowledge sharing positively influences performance.

(Assefa et al., 2014) investigated the factors that promote knowledge sharing characteristics among Employees in the Workplace. Their study was conducted on employees of Commercial Bank of Ethiopia (CBE) as a research case. According to their organizational, individual, social relation, task characteristics and technological factors are identified as main enabling factors that promote knowledge sharing in the work place. An interesting finding of their research showed that organizations put much emphasis on technology to promote knowledge sharing in the workplace, but non technological factors (organizational and individual factors) appeared more significant. Finally, they propose that as the study was conducted on commercial bank

within developing economies context, it contributed additional perspectives to confirm or extend existing findings on knowledge sharing.

2.7 Research Gap on Knowledge Sharing in Commercial Banks

Most of the previous empirical researches conducted on knowledge sharing in commercial banks have the following basic limitations:

Firstly, they were considering a limited number of knowledge sharing constructs to assess or identify the factors which enables employees' intention to share knowledge in the workplace. Whereas the very big challenges in knowledge sharing are the problem of identifying which factors are suitable and which factors are not suitable for a specific organization. Since some factors which are enabling and promoting factors for some organizations and context might be a barrier for other organizations.

Next, the research studies are carried in other country's contexts. This implies that considering and adopting the research model to be somehow difficult to apply in the Ethiopian context.

Based on the above-mentioned limitations, in this research study, I adopt a knowledge-sharing model proposed by (Assefa et al., 2014). The reason for adopting the research model is that the research is conducted in the Ethiopian context and apart from this, the research considers multiple knowledge sharing factors to identify the enabling factors in knowledge sharing practices in the workplace. This helps in addressing various types of work units in the Commercial Banks. However, the research has few limitations regarding the applicability and validity of the research work in various types of commercial Banks. Since the research used qualitative research methodology and conducted in single commercial Bank. It lacks generalizability and needs further future research to validate the research model using quantitative research methodology by taking a large number of sample sizes on multiple institutions.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this section each constructs from the adopted knowledge sharing models will be discussed in relation to the intention to knowledge sharing characteristics in the workplace. Following this, the research hypothesis will be formulated for each constructs and. Furthermore, the research approach for design and analysis methodology to undertake the research will be discussed.

3.2 Research Model

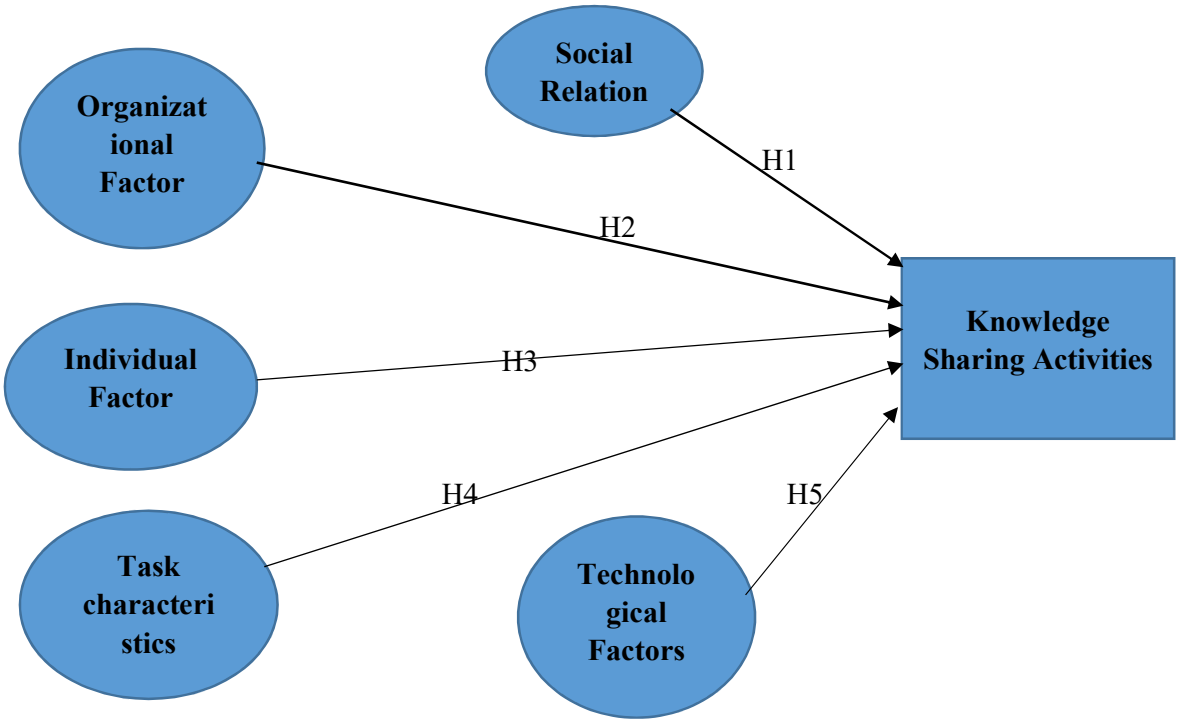

Figure 3 : Research model (Adopted from Assefa et.al, 2014)

3.2.1 Research Hypotheses

Based on theoretical framework, it is assumed that, five major hypotheses were developed following the discussion of each constructs in relation to the knowledge sharing activities. Based on the literature review, it could be claimed that there is a significant relationship between variables includes individual factors, social relations, organizational factor, technological factors as well as task characteristics and knowledge sharing. In this study the constructs Individual factors, organizational factors, technological factors , social relation, task

characteristics and knowledge sharing were adopted from *"Enabling Factors for Knowledge Sharing among Employees in the work place "*(Assefa et al., 2014).

And hence the Null Hypothesis:

H0: There are no significant effects on employees' intention to engage on knowledge sharing activities based on organizational factors, Individual factors, social relations, task characteristics and technological factors.

3.2.2 Organizational factors and knowledge sharing activities

Organizational culture is the way organizations operate and behave internally for its employees and externally for the customers and clients. It includes all interactions of the employees with internal and external conditions. The organizations can be considered either favorable or not, depending on its culture and the way they manage their employees. This includes transparency, benefits provided, incentives, leaderships and management of its employees. In the favorable organizational culture knowledge can be shared without out difficulties whereas in the unfavorable working environments or organizational culture knowledge cannot be shared freely. Therefore, in order to create a knowledge sharing organization. The organization need to promote a knowledge sharing practices among employees. This enabling organizational factors which promotes knowledge sharing among employees includes trainings, mentoring, on job rotation, organizational innovativeness and monetary incentives.

Knowledge sharing activities are intensely embedded in the organizational factors. Organizational factors for knowledge sharing consists of the main important organizational factors such as organizational core values, organizational support and organizational (Kim & Lee, 2006). The organizational knowledge values influences how knowledge is transferred from individuals to others inside the organization (De Long & Fahey, 2000). An organizational core values is determined by how the organization shared the values, norms and cultures through individuals (Goh, 2002), it includes also learning and knowledge (Janz & Prasarnphanich, 2003; Cummings & Teng, 2003) this in turn creates an opportunity for knowledge sharing in the organizations. In trusted and open organizational environment the flow of knowledge is transferred from one employees to another(Cabrera & Cabrera, 2005). Empirical research supports an instantaneous effect of organizational factors on KSB (Yu et al., 2010).Organizational factors is found to be positively associated to knowledge sharing characteristics (Yang & Chen, 2007). Decentralized organizational culture and performance based organizational rewards are the foundations for effective knowledge sharing's to take place

(Kim & Lee, 2006). (Ipe, 2003) sees organizational support considered as a fundamental framework for knowledge sharing activities. The collective efforts exerted by organizational support and core values as discussed by (Hall & Hall, 2001) informs the importance of organizational factors, which give individuals a sense of appreciation. Organizational factors comprising organizational core values and organizational support directly impacts the knowledge sharing activities(Yang & Chen, 2007). Having been considering organizational factors as a foundation for the knowledge sharing activities, it will also promote the performance and effectiveness of an organizations. This will lead to the assumptions that organizational factor will have a positive impact on knowledge sharing activities.

H1: organizational factors positively influence knowledge sharing activities.

3.2.3 Individual factors and knowledge sharing activities

Within the system of knowledge sharing, individuals contribute as a knowledge creator and knowledge acceptor. Individuals create knowledge by communicating their ideas and enjoy via socialization. As an acceptor of knowledge people search for and infer the knowledge earlier than it's shared to any database (Takeuchi, 2006). In this situation, it implies that creation and sharing of knowledge relies upon at the ultimate work of a person who has to set the ball rolling for knowledge to be shared or horde. For example, an employee is made recognized of a work problem confronted with the aid of friends. The employee has the answer to the problem encountered. Employees are highly dependent on their motivations to share or not to share their knowledge to their peers. It depends on the intention of the individuals to share their knowledge to their immediate colleagues. Most of the time individuals' intentions to share knowledge is highly impacted by their personal characters and attitudes. The example indicates that people function a pivotal function in the manner of knowledge sharing. Nonaka and Tekeuchi (1995) point out that, in the knowledge management process particularly knowledge sharing, will not be achievable without individuals' utmost active participations. Therefore, this will lead to the understanding that individual factors is one of the key factor that influences knowledge sharing activities.

Knowledge management can be effective if and only if organizations are in the positions to change their companies' business strategies and working principles. This can also be achieved through the ultimate effort of individuals (Davis, 1998). The knowledge of the human beings is created and multiplied via social interplay among people and their innovative practices (Takeuchi, 2006).

H2: Individual factors positively influences knowledge sharing activities

3.2.4 Social Relations and knowledge sharing activities

Social exchange theory is frequently carried out to provide an explanation for the social mechanisms in knowledge sharing among individuals (Cabrera & Cabrera, 2015). In brief, social relations concept is primarily based on the notion that conditions in which the activities of one individual offer the prizes or penalties for the activities of some other individual characters and vice versa (Emerson, 1976). To make it more specific, social exchange principle considers rewards and the avoidance of punishments as simple motivating incentives for interaction between human beings – primarily based on reciprocity. Basically, interpersonal trust and learning commitment manages the social relations view on interactions of individual members and result in shared reliance (Harvey et al., 2006) Interactions create dependence between people relying at the depth of relation of that specific pair. Those interactions are understood as interdependent and dependent at the moves of the opposite person and vice versa (Blau, 1964). Generally, social relations is an activity provide a hint to the interaction opportunities that a specific employee has. Through common understanding and a level of social exchanges on a social interactions between two individuals, expertise sharing is much more likely to happen (Yang & Chen, 2007) .Social relations is related to the relations that peoples interact among themselves(Ryan & Deci, 2000) and indicates the availability of social relations at the work environment. Top management aid is used as effective technique to prompt knowledge workers, meaning personnel to involve in knowledge seeking job (Horwitz, 2003). Following the social capital theory, (Chiu et al., 2006) investigate the amount of knowledge sharing in a digital community to be significantly (.21, $p<0.001$) related to the social relation ties of community participants.

Other empirical support for the impact of social relations on knowledge sharing is given on a research on “coopetition” (Tsai, 2002) that investigates knowledge sharing among resembling organizations, which although are socially linked. The application of social exchange theory caused the understanding of trust as factor that obtained the best interest by scholars(Wang & Noe, 2010), within the research of knowledge sharing experiences. The advent of trust between colleagues can best arise in normal interactions and interconnected task activities (Argote et al., 2003). It overcomes the undesirable relationships of the monetary risk of knowledge sharing (Kankanhalli et al., 2005) somewhat describes individuals knowledge sharing (Chiu et al., 2006; Lin, 2007). The underlying social relations, being the center of social relations and the ensuing

anticipation of reciprocal practice impacts the characteristics of individuals in favor of knowledge sharing (Bock et al., 2005). A highly interconnected friendship networks, which brings on deepened social relation ties, might contribute to a better organizational effectiveness (Argote et al., 2003);(Ingram & Roberts, 2000).The closeness and social harbor related to excessive social relations seem useful for knowledge sharing practices, Therefore I propose:

H3: Social relations positively influences knowledge sharing activities

3.2.5 Task Characteristics and knowledge sharing activities

Task characteristics as such is associated with the felt obligation inside the activity (R. Hackman & Oldham, 1976) and it could lead personnel to depend greater on the idea-exchange and reports so that it will increase job effectiveness. In addition to this, the overall level of freedom related to excessive activity task characteristics employers may also entail employees' engagement in a normal information exchange with their peers. the liberty of planning as well as tasks independence have been among the maximum popular and best HR techniques for motivating expertise sharing as determined through (F. M. Horwitz et al., 2003). Task characteristics was also considerably connected to KSB according to the understanding of (Cabrera & Cabrera, 2005). Their research checked out task, task complexity and the respective have an effect on employee's knowledge sharing inspiration, mediated through three kinds of motivation. Their sample size of 186 employees confirmed a relation from task characteristics closer to fundamental motivation (0.39, $p<0.01$), which in turn changed into strongly and definitely (0.57, $p <0.01$) associated with the sending of knowledge. Despite the fact that weaker, task characteristics could as well be related to expertise sending mediated with the aid of introjected motivation.

As a high task complexity also implies a higher frequency of astonishing challenges (Daft & Lengel, 1998), personnel in such operating situations are required to communicate more. Consequently, it seems possible to have interaction humans in specific task activities a, building the opportunity and rewards of active knowledge sharing. Each meaningfulness related to high task importance and the better stage of interest associated with an excessive task complexity (J. R. Hackman, 1980) may appeal to knowledge seekers to seek advice from the ones employees with demanding knowledge and experiences, consequently motivating their KSB.

According to (Earl, n.d.), experts in consulting companies must be seen to the organization after which approached through knowledge-seekers. The overall performance assessment coming from a task characteristic that gives a high level of comments from the task can also inspire the

KSB of personnel as they collect greater knowledge to share among the organizations. To sum up the discussion, the more complex and uncertain the task characteristics, the more interesting the job seems to the worker himself and to colleagues, who again can stimulate the KSB. Therefore, I propose:

H4: Task characteristics positively influences knowledge sharing activities

3.2.6 Technological Factors and knowledge sharing activities

Information technology as essential enabler in knowledge sharing activities is the ultimate targets for a number of studies in knowledge management fields (Kim & Lee, 2006). Literatures supported empirical studies for the impact of IT infrastructure is given (Syed-ikhsan & Rowland, 2004) and (Kim & Lee, 2006). (Yang & Chen, 2007) see technical knowledge skills of an organization as essential and the necessary skill, now not an essential situation, in a knowledge organization. In addition to different organizational contextual elements, the organizations knowledge capabilities did no longer significantly fluctuate between firms with applied knowledge management projects and those without. Yet, the mean score in their study indicated the capabilities of organizations in different technical aspects. This implied that technological factors is one of the enablers of knowledge sharing activities. Therefore, I state:

H5: Technological factors positively influences knowledge sharing activities.

3.3 Study Design

The study design is one of the main parts of a research. Therefore, it is important to choose the appropriate research design in order to achieve the study objectives. This design allows the researcher to investigate the influence of independent variables on the dependent variables. Identifying such associations will help the organization what intervention to take to improve knowledge sharing. This study used causal research.

3.4 Study Population

The study considers employees of five commercial Banks of Ethiopia. The selected organization are Nib International Bank, Awash International Bank, United International Bank, Dashen Bank S.Co and Cooperative Bank of Oromia. The study consists of employees who work on the International Banking Department, Research and Development Department, customer service operations Department, Information Technology |Department, Foreign Banking Department, Project management Department and credit Departments.

A total of 300 permanent employees are selected from the banks. Each bank contributed 60 participants. The population of the study consists of the permanent employees in order to get detailed and relevant information about the knowledge sharing characteristics at the individual level.

3.5 Sample Size

Sampling design makes it possible for the researcher to draw generalization and inference by including a limited portion of the population and making careful observations of the variables in play. In this study the sampling techniques used is proportional stratified sampling method. The sample size will be computed using Yamane formula below, where N is the size of the population, n is the sample size, and e is the error at 95% confidence level and 5% level of significance.

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

The calculation result indicates that for the total sample population size N, 300 and significance level of 0.05 the sample size 171. This indicates that the minimum sample size for the study is 171.

3.6 Data Collection Procedure

Data collection for this study will begin in mid of February 2020 and will be finalized at the end of July 2020. The primary data for the research will be gathered by using a self-administered survey questionnaire. The questionnaire was divided into two parts namely part 1 and part 2. Part 1 comprised questions eliciting demographic characteristics of respondents. Part 2 designed to ascertain the views of the employees of the selected commercial banks on the significance of knowledge sharing, among employees in the work place. The questionnaire will be designed to be clear and applicable. A five-point Likert scale will be used and the respondents will be required to state the extent to which they agreed or disagreed with the statements in the questionnaire. The questionnaire will be pre-tested by circulating it to 14 members of the employees in the banks to determine the understandability of the items included in the questionnaire. In the pre-test session the respondents will be checked for languages barrier. This will be conducted to assure whether they can understand the questions. This is due to the fact

that language can be one of the factors which can lead to misunderstanding and wrong interpretation of the results. Therefore, improvement and modification including rephrasing and rewording will be done based on the feedback obtained.

3.7 Data Analysis Procedure

In order to better compare and interpret the results from studies a scale is usually created. A scale is a better way to describe a construct compared to single questions, due to with a scale the validity and reliability are higher. For instance, fifty question could be asked a person in order to understand how that person feels about a particular thing. This, however, will be rather time consuming and inefficient time wise. With a scale one can reduce the number of questions based on which are the most relevant for the construct in question. E.g. ask about how sad, happy and regretting a person feels about the same thing instead of all the fifty questions. The analysis of the data from the questionnaire was analyzed using the PLS-SEM application Smart-PLS and the results are reported in the chapter 4 Analysis.

3.8 Reliability and Validity of Data

Validity is to what degree a measure provides an accurate representation of what was intended to be measured. A systematic error, which is also known as bias, is a consistent manner occurring during each measurement. An example of a biased question is a question which would produce an error in the same direction every time the question was asked. A variable error occurs randomly when the question is asked. An example of a variable error is an answer that is less favorable than the true feeling due to a temporary characteristic, such as the respondent was in a bad mood. The error would not occur each time the attitude of that individual is measured. In addition, the same is true if the individual would be in a good mood, then the error would be in the opposite direction and would be overly favorable. (BENSON & HOCEVAR, 1985) all reliability and validity values are presented in chapter 4 Results.

"*First of all, the simplest form of validity is called Face validity*". It refers to whether an item is able to measure an underlying construct. "*The factor loadings indicate how much each items weight on each construct*". The factor loadings are referred to as validity coefficients and can by multiplying the factor loading times the observed variable score be used to indicate how much of the observed variable score variance is valid. (Reichardt, 2005) In this study item validity is shown with the factor loadings in chapter 4 Results. The size of the factor loading is one important consideration. In the case of high convergent validity, high loadings on a factor

would indicate that they converge on a common point, the latent construct. Standardized loading estimates should be above 0.50 or higher, and ideally 0.70 or higher. CR indicated how well constructs in the measurement model are described by the indicators. (Chin, 1998) recommend a threshold of 0.7 and that values above this number are considered well described by the indicators. CR provides a more appropriate measure of internal consistency reliability, than e.g. Cronbach's a, due to two reasons. First, unlike Cronbach's alpha CR does not assume that all indicator loadings are equal in the population, which is in line with the working principle of the PLS-SEM algorithm that prioritizes the indicators based on their individual reliabilities during model estimation.

Convergent validity is a measurement to investigate the closeness between two related constructs. It explains how two constructs converges. The opposite measurement is discriminant validity. It refers to how a construct discriminates from other constructs that it is not supposed to measure. Usually, convergent validity and discriminant validity are assessed jointly for a set of related constructs. It is a summary indicator of convergence. AVE is calculated by the sum of standardized factor loadings squared (squared multiple correlations) for each item divided with the total number of items.

Hair et.al. (2010) describes it as: the average squared completely standardized factor loading or average communality and is measured for all latent construct in the measurement model. An AVE of less than 0.50 indicates that, according to the formula, more error remains, on average, in the items than the variance explained by the factor structure that was measured. For satisfactory discriminant validity, the square root of the AVE from the construct should be greater than the correlation shared between the construct and other constructs in the model (Fornell & Larcker, 1981).

The term reliability is used to refer to the degree of variable error in a measurement. Reliability is the extent to which a measurement is free of variable errors. This is reflected when repeated measures of the same stable characteristic in the same objects show limited variation. (Edwards & Kenney, 1946) In the Structure Equation Modelling Collinearity Tolerance was checked for with PLS-SEM". In the context of PLS-SEM a tolerance value below 0.20 or the Variance Inflation Factor (VIF) lower than 5.

The p value is attributed to Ronald Fisher and "represents the probability of obtaining an effect equal to or more extreme than the one observed considering the null hypothesis is true (Biau et al., 2010) In other words, it is a measurement of how extreme the observation is. Therefore, the smaller the p value is the larger the significance (Biau et al., 2010). Another way of measuring

the significance of findings is by using a t value. “A t-test assesses whether the means of two groups are statistically different from each other”. This analysis is appropriate whenever you want to compare the means of two groups (Trochim & Donnelly, 2006).

The R2 value is a percentage of variance in the variable that is accounted for by association in the independent variable groups (Schumacher & Lomax, 2016). Researchers commonly use the coefficient of determination, i.e. R2 value, to measure and evaluate the structural model (Leguina, 2015) “This coefficient is a measure of the model's predictive accuracy and is calculated as the squared correlation between a specific endogenous construct's actual and predicted values”. The adjusted R2 value (R2adj) is used as the criterion to avoid bias toward complex models.

Therefore, it is not possible to interpret R2adj as R2. R2adj is used to compare PLS-SEM results involving models with different numbers of exogenous latent variables and/or data sets with different sample sizes. (Leguina, 2015) states that what can be considered high, medium or low values of R2 depend on the research area. They say that: Hence in this study a R2 value of 25% is considered a weak result, 50% moderate and 75% substantial.

Effect size F2 is a measurement that tells the impact of change in the R2 value when a specified exogenous construct is ignored in the model. When assessing F2 0.02 represent small effects, 0.15 medium effects, and 0.35 large effects of the exogenous latent variable (Cohen, 1988). In psychological research however, Cohen's (1988) conventions to interpret effect size is different. A F2 >0.10 is thought to represent a weak or small association; a F2 >0.30 is considered a moderate correlation; and a F2 >0.50 is thought to represent a strong or large correlation (Bliwise, 2006).

Effect sizes can also be thought of as the average percentile standing of the average observed participant relative to the average control participant or be interpreted in terms of the percent of nonoverlap of the group's scores with those of the control group (Cohen, 1988). A F2 of 0.0 indicates that the mean of the group is at the 50^{th} percentile of the control group or with 0% nonoverlap. A F2 of 0.8 indicates that the mean of the group is at the 79th percentile of the control group or a 47.7% nonoverlap.

CHAPTER FOUR

DATA ANALYSIS, RESULT AND DISCUSSION

4.1 Introduction

This chapter contained details of presentation of data analysis, interpretation and discussion of findings. Causal type analysis was employed; which includes; Frequencies, weights and percentages. Inferential statistics such as Factor Analysis and Partial least square structural equation modeling was also used to test for the relationship between the variables. The organized data was analyzed and interpreted using the Statistical Package for Social Sciences (SPSS v23) and smart PLS V3 software. The descriptive statistics result was presented in frequency and percentage tables, charts and pictures which enhanced easier interpretation and understanding of the research findings.

4.2 Scale Reliability Results

Table 4.2 Scale Reliability Results

Variable	No of Items	Respondents	α=Alpha	Comment
Knowledge Sharing	11	14	0.740	Reliable
Organization Support	10	14	0.793	Reliable
Core values	4	14	0.819	Reliable
Work Experience	3	14	0.798	Reliable
Background Education	2	14	0.856	Reliable
Learning Commitment	3	14	0.804	Reliable
Reciprocity	4	14	0.774	Reliable
Helping Others	4	14	0.803	Reliable
Interpersonal Trust	3	14	0.753	Reliable
Usefulness	3	14	0.752	Reliable
Ease of Use	3	14	0.758	Reliable
Task Complexity	3	14	0.891	Reliable
Task Uncertainty	3	14	0.756	Reliable

4.3 Response Rate

Table 4.3 Response Rate

RESPONSE RATE

Category	Frequency	Percentage
Returned Questionnaire	250	83.5%
Unreturned Questionnaire	50	16.5
Total	300	100%

A total of 300 questionnaires were distributed to five commercial Banks operating in Ethiopia. i.e. sixty questionnaires per commercial Banks. Out of which 250 questionnaires were dully filled and returned which represented a response rate of 83.5%. And 50 of the questionnaires which represented 16.5% response rate left unreturned. According to (Pike, 2007) a response rate of over 50% is adequate for undergoing a research study hence a response of 83.5% was deemed adequate for this study.

4.4 Demographic Characteristics of Respondents

This section contains results on socio-demographic characteristics of the respondents. These characteristics include; gender, age bracket, level of education, work experience and position of the respondent.

4.4.1 Gender of the Respondents

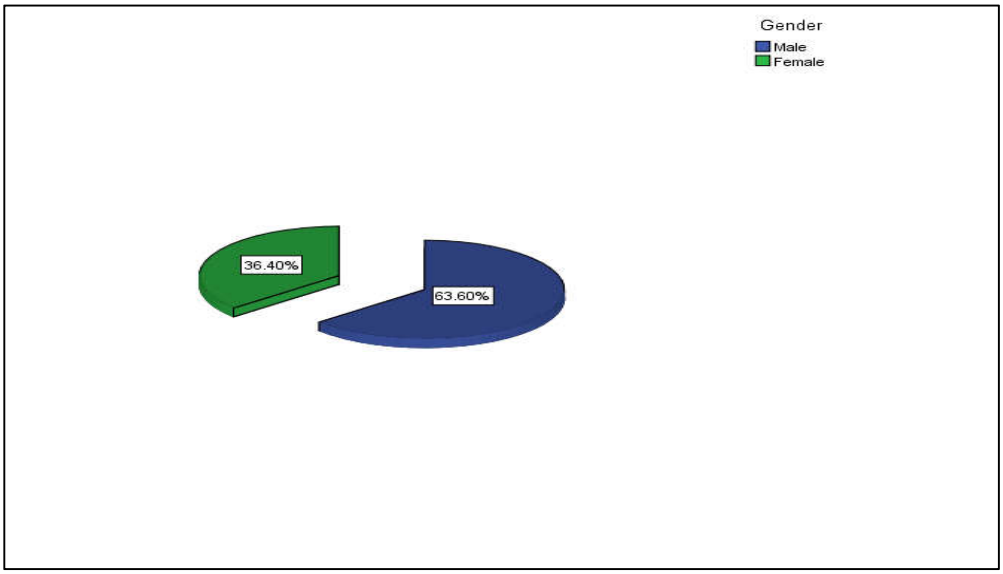

Figure 4.4.1 Gender of the Respondents

The results on the gender of the respondents indicated that 63.60% of the respondents were male while 36.40% of the respondents were female. This finding imply that most of the positions in the banking industry in Ethiopia are male dominated.

4.4.2 Age of the Respondents

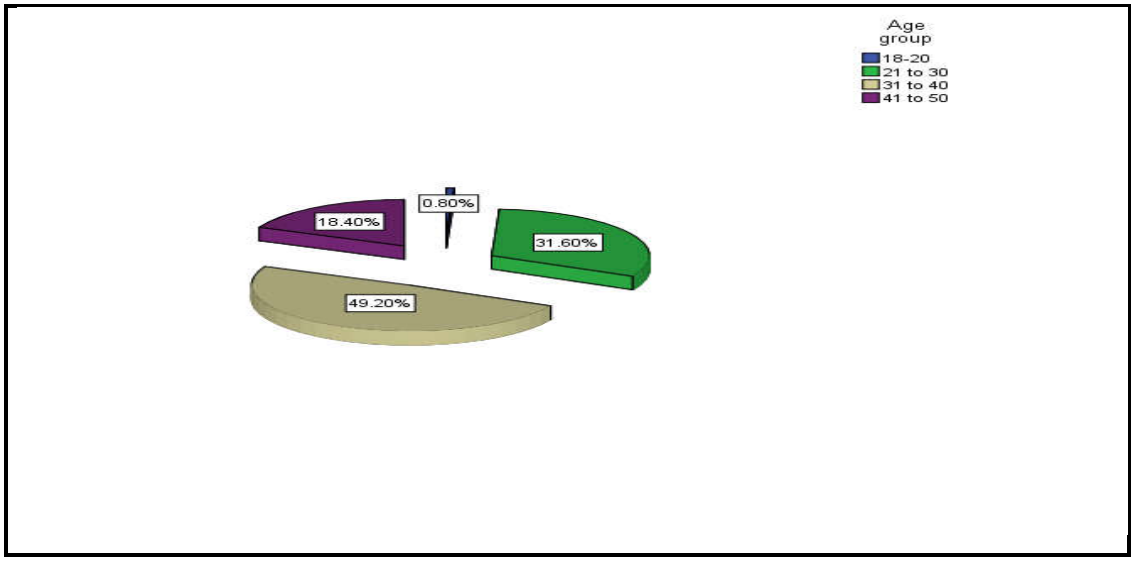

Figure 4.4.2 Age Group of the Respondents

The study was interested in the age bracket of the respondents in the study. The findings indicate that half of the respondents were between 31 and 40 years. Those between 21 and 30 years were 31.60% while 18.40% were between 41 and 50. Only 0.80% were between 18 and 20 years old. The findings imply that more than half percent of the positions held by employees of ages between 31 to 40.

4.4.3 Education Level of the Respondents

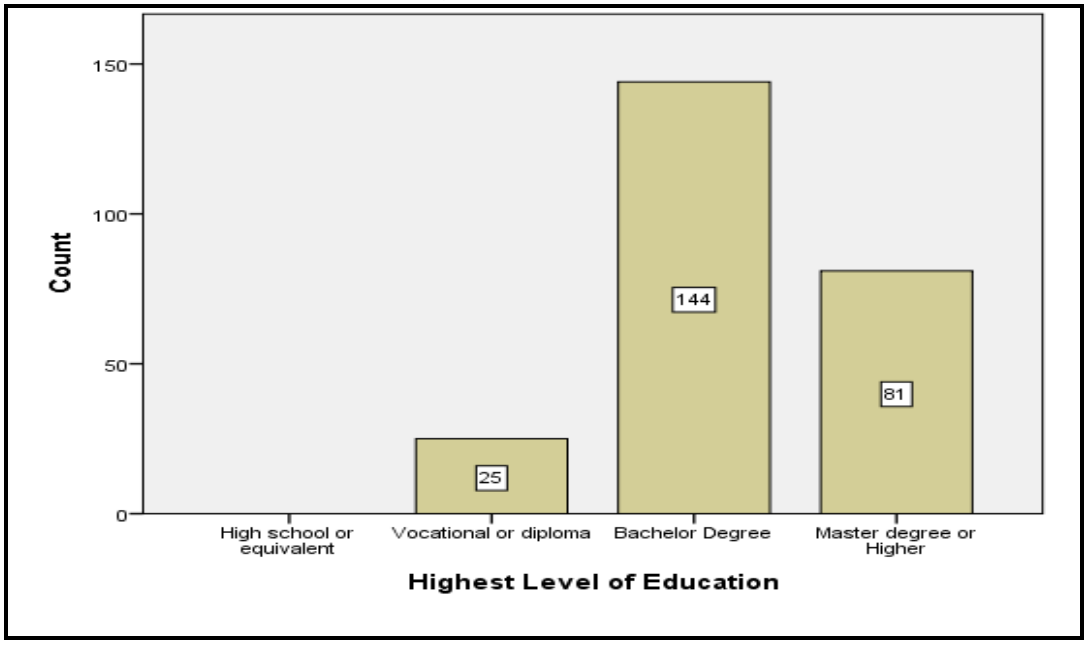

Figure 4.4.3 Education Level of the Respondents

The results of the study further indicated that 32.4% of the respondents in this study had masters' degree level of education. Those who had bachelor degree were 57.6% while 10% had vocational or diploma level of education. Majority of those with masters' degree were occupied managerial positions in their respective banks. These findings imply that the respondents were educated to understand what the study was all about and had no challenges in completing the questionnaires.

4.4.4 Position of the Respondents

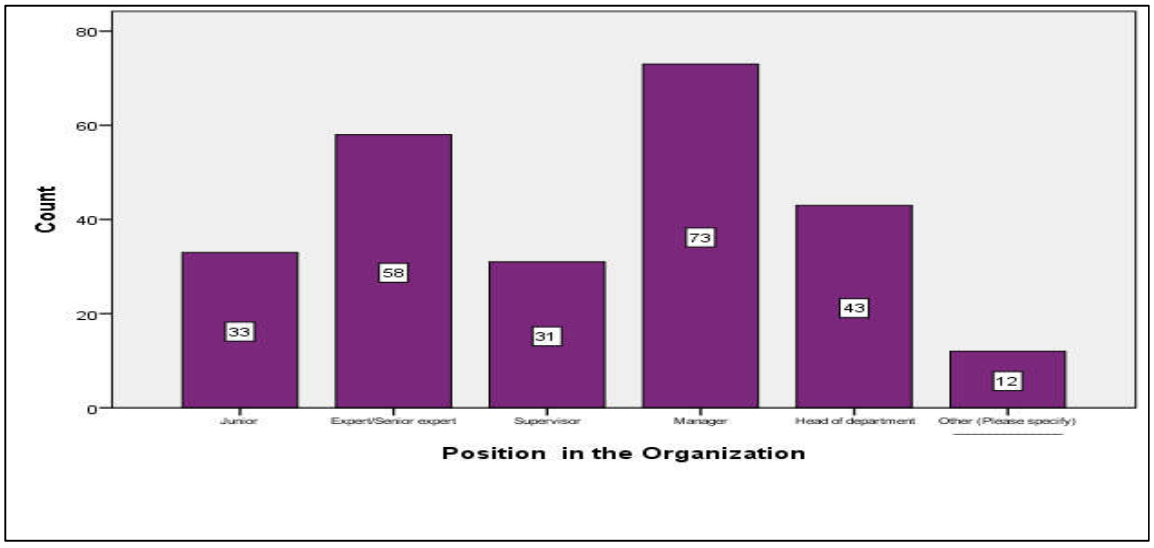

Figure 4.4.4 Position of the Respondents

The study was also interested in the positions held by the respondents in their respectively firms. The findings indicated that 69% of the respondents were heads of department in their respectively firms and 31% had managerial positions. This finding was adequate for this study because all the respondents were well placed to respond to the questionnaires.

4.4.5 Work Experience of the Respondents

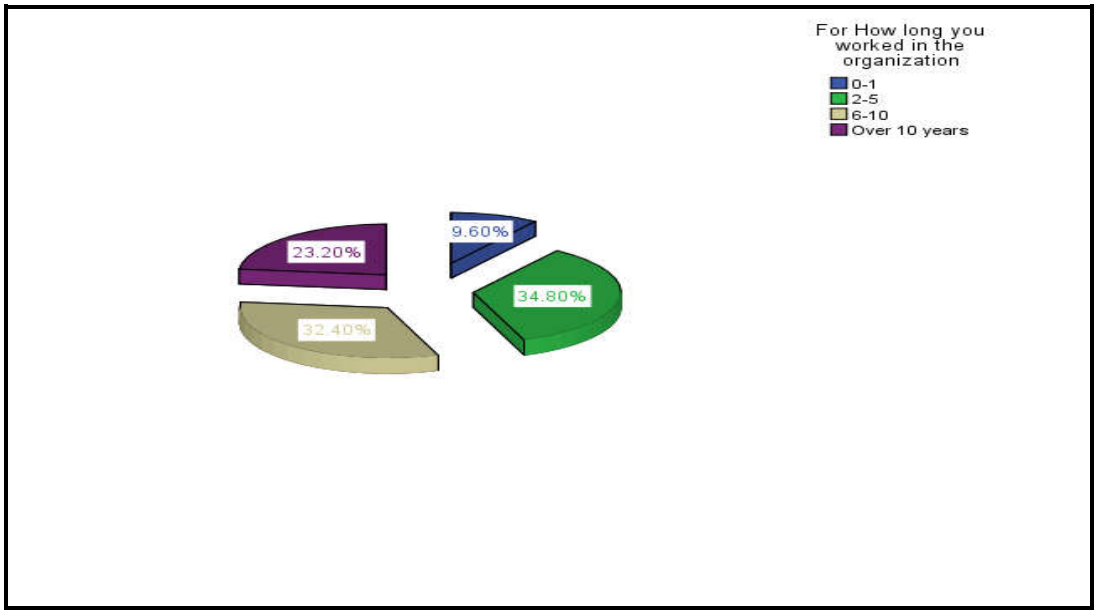

Figure 4.4.5 Work Experience of the Respondents

The study further sought to find out how long the respondents had worked with the bank sector in Ethiopia. The findings indicate that 9.6% of the respondents had worked between 0 – 1 year, 34.8% of the respondents had worked between 2-5 Years, 32.4% of the respondents had worked between 6-10 years and 23.2% of the respondents had worked over 10years .This finding was also adequate for this study because all the respondents had over 1 years of experience in the banking industry and were well placed to respond to the questions in the questionnaires.

4.5 Organizational Characteristics

This section contains results on characteristics of the organization. These characteristics include; type of the organization, number of employees and number of years the company has been in operation.

4.5.1 Type of Organization

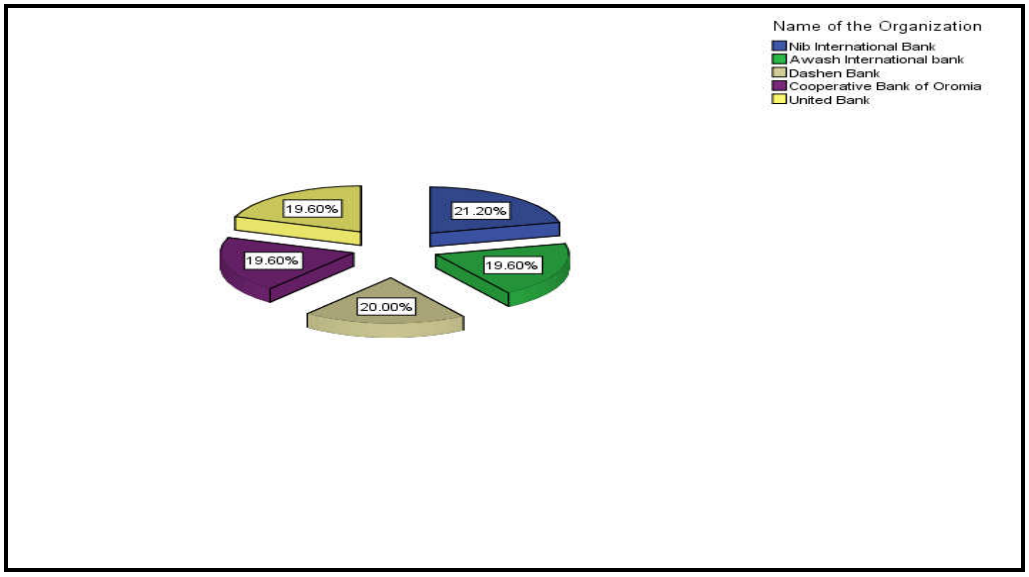

Figure 4.5.1 Type of Organization

The study sought to find out whether the banks are private or public. The findings indicate that 20% of the respondents were from Dashen Bank, while 19.60% were from Awash International Bank, 21.20% of the respondents were from Nib International Bank 19.60% of the respondents form cooperative Bank of Oromia and finally 19.60% of the respondents is from united bank. These findings imply that almost all of the private banks were represented in this study hence the findings could be applied to most of the banks in Ethiopia.

4.5.2 Number of Employees

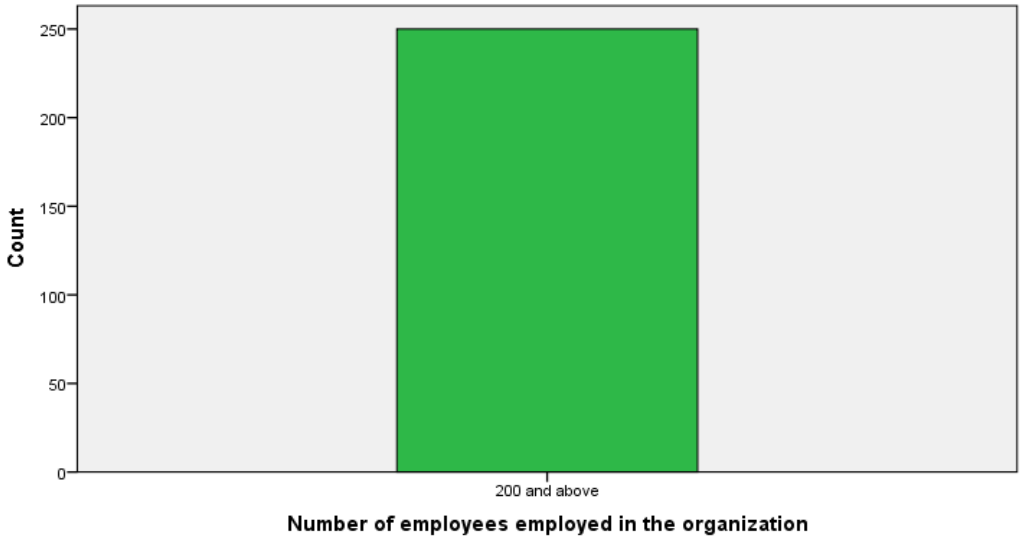

Figure 4.5.2 Number of Employees

The study sought to find out the number of employees in each insurance company in Kenya. The findings showed that over 50% of the insurance companies in Kenya had between 100 and 199 employees while 29% of the insurance companies had over 200 employees. Only 20% of the insurance companies had between 50 and 100 employees. The findings imply that most of the insurance companies in Kenya were large companies.

4.5.3 Number of Years the Company has been in Operation

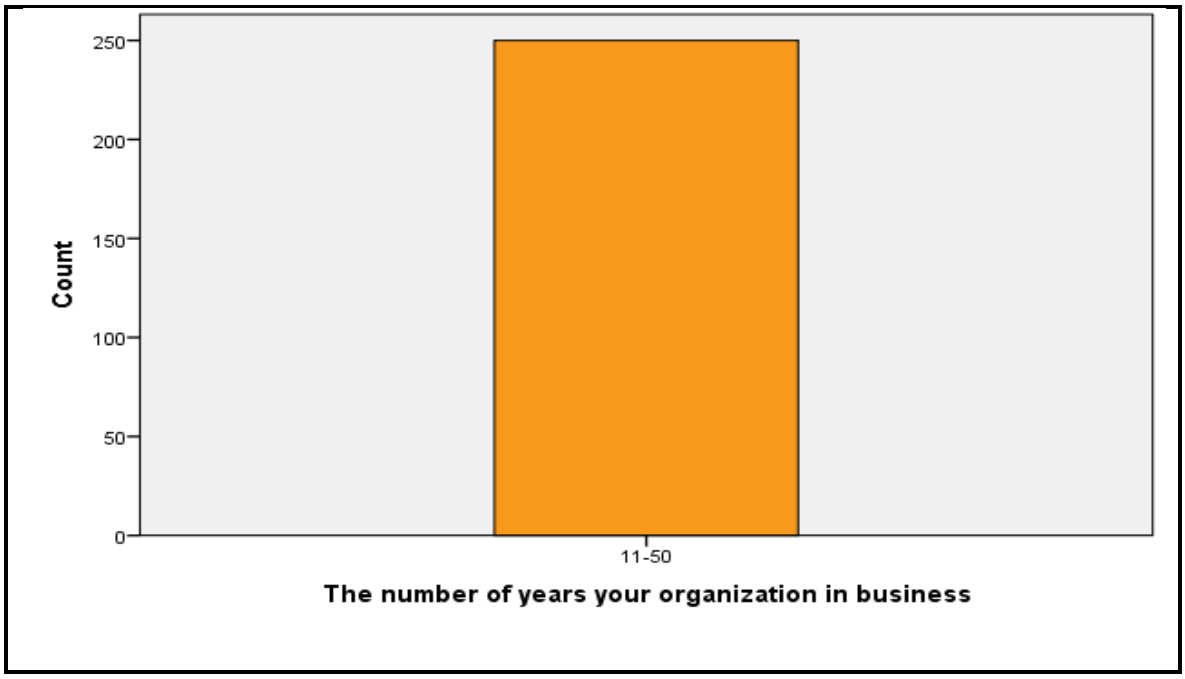

Figure 4.5.3 Number of Years the Company has been in Operation

The results of this study also revealed that almost all of the banks in operation in Ethiopia lies between 11 and 50 years. The findings imply that banks had been in operation long enough to have participated in the knowledge sharing activities.

4.6 Measurement and Structural Model Assessment

In this section the results from the study is presented and explained. The background, formulas and explanations for each statistic is explained in chapter 3. About Reliability and Validity. Below follow the results from analysis of the measurement model, CFA and after that the SEM analysis of the structured model.

4.6.1 Measurement Model and CFA

The factor analysis is illustrated by the items and loadings in Table 3: The loadings of the items reflecting the model.

	Individual factors	Knowledge Sharing	Organizational Factor	Social Factors	Task Characteristics	Technological Factors
Background Education 1 & 2	0.942 0.932					
Ease_of_use 1,2&3						0.873 0.775 0.814
Helping_Others1,2,3,4				0.868 0.751 0.886 0.884		
Interpersonal_Trust 1,2 & 3				0.896 0.779 0.773		
Knowledge_Sharing 1 up to 11		0.715 0.659 0.758 0.857 0.714 0.787 0.671 0.833 0.551 0.815 0.712				
Learning_Commitment 1,2 & 3	0.793 0.852 0.895					
Organizational_Support 1 up to 10 excluding 9			0.717 0.847 0.758 0.771 0.716 0.815 0.715 0.597 0.581			
Reciprocity 1,2,3,4				0.647 0.788 0.811 0.840		
Task_Complexity1,2&3					0.915 0.960 0.934	
Task_Uncertainity1,2 & 3					0.805 0.877 0.775	
Usefulness 1,2 & 3						0.609 0.857

						0.882
Core_values 1,2,3&4			0.841 0.849 0.791 0.756			

Table 4.6.1 The Loadings of the items reflecting the model

Sufficient loadings have been discussed previously when the formulas were introduced in chapter 3. Note that some of the items in Table 3 (marked with Red color) does not have a loading above 0.7 which is the preferred level, indicating a sufficient loading according to the formula. However, lower loadings between as low as 0.4 and 0.7 can be used if the Composite Reliability (CR) (see below) and Average Variance Extracted (AVE) (see below) is high enough for the corresponding item (Hair, Hult, Ringle, & Sarstedt) A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), 2014). If not, the item should be eliminated from the scale if it will result in an increase in the composite reliability or the AVE.

Composite Reliability (CR) over 0.7 and convergent validity shown with Average Variance Extracted (AVE) higher than 0.5. Therefore, all the loadings can be accepted (Hair, Hult, Ringle, & Sarstedt, A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), 2014).

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Knowledge Sharing Activities	0.746	0.840	0.515
Individual Factors	0.818	0.878	0.531
Organizational Factor	0.856	0.894	0.601
Social Relations	0.837	0.874	0.501
Task Characteristics	0.808	0.858	0.520
Technological Factors	0.732	0.801	0.501

Table 4.6.2 The Composite Reliability and Convergent validity (by Average variance Extracted) for the study

.NOTE *) ITEMS WITH LOWER LOADINGS ARE MARKED.

Discriminant validity was assessed according to the Fornell-Larcher Criterion. It is at a satisfactory level if the square root of the AVE from the constructs should be greater than the correlation shared between the construct and other constructs in the model.

	Knowledge Sharing	Individual factors	Organizational Factor	Social Factors	Task Characteristics	Technological Factors
Knowledge Sharing	0.756					
Individual factors	-0.095	0.854				
Organizational Factor	0.246	0.175	0.896			
Social Factors	0.282	0.228	0.278	0.798		
Task Characteristics	0.445	0.005	0.147	0.288	0.844	
Technological Factors	0.014	-0.021	-0.052	0.233	-0.027	0.895

0.756 **0.854** **0.896** **0.798** **0.844** **0.895**

Table 4.6.3 Discriminant validity according to the Fornell-Larcker Criterion

Discriminant validity is hence also recognized, as can be seen by the values presented in Table 5.

4.6.2 Structure Model and SEM Analysis

Below are all values and calculated measurements related to the structure model presented. All measurements and how they are calculated is presented in chapter 3.6.1 About Reliability and Validity. The path coefficients for the model is shown in Table 6 with corresponding confidence level. Worth noticing are the paths **Organizational Factor → Knowledge Sharing**, **Individual factor → Knowledge Sharing**, **Organizational factor→ social factor**, **Organizational factor→ Individual factor** and Task characteristics → **Individual factors** with respectively **0.538, 0.256,0.467,0.538 and 0.214**.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Organizational Factor -> Knowledge sharing	0.538	0.533	0.084	6.391	**0.000**
Individual factors -> Knowledge sharing	0.256	0.256	0.083	3.097	**0.002**
Social Relation -> Knowledge sharing	0.036	0.041	0.073	0.493	**0.622**

Task char -> Knowledge sharing	0.085	0.076	0.065	1.309	**0.191**
Technological Factors -> Knowledge sharing	-0.038	-0.036	0.061	0.626	**0.531**
Organizational Factor -> Social Factors	0.467	0.467	0.067	6.974	**0.000**
Organizational Factor -> Individual factors	0.538	0.533	0.084	6.391	**0.000**
Task characteristics -> Individual factors	0.214	0.217	0.084	2.551	**0.011**

Table 4.6.4 Path coefficients to the variables in the model and corresponding confidence levels.

In Table 7 the collinearity assessment is presented. The values presented in the table are VIF, which should be lower than 5 in order to be accepted.

	Individual Factor	**Knowledge Sharing**	**Organizational factor**	**Social Relations**	**Technological Factor**	**Task Character**
Individual Factor		**1.804**				
Knowledge Sharing						
Organizational factor	**1.093**	**1.678**		**1.000**		
Social Relations		**1.569**				
Technological Factor		**1.214**				
Task Character	**1.093**	**1.268**				

Table 4.6.5 Evaluated collinearity between variables

In Table 8 the coefficients of determination, i.e. R_2, is presented together with their corresponding confidence levels.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Individual Factor	0.402	0.408	0.071	5.703	**0.000**
Knowledge Sharing	0.579	0.591	0.066	8.751	**0.000**
Social Relations	0.218	0.223	0.062	3.547	**0.000**

Table 4.6.6 Coefficient of determination and corresponding confidence levels

Notice that a R2 of 0.579 and 0.402 is calculated for Knowledge sharing and individual factors respectively, which is regarded as a moderate result. The Social relations has a weaker result of 0.218.

In Table 9 is the entanglement of the variables shown with the calculated effect size presented with corresponding confidence levels.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Individual factors -> Knowledge sharing	0.086	0.096	0.060	1.441	**0.001**
Organizational Factor -> Knowledge sharing	0.409	0.425	0.162	2.522	**0.012**
Social Factors -> Knowledge sharing	0.002	0.010	0.014	0.140	**0.026**
Task characteristics ->Knowledge sharing	0.013	0.020	0.023	0.580	**0.045**
Technology factors -> Knowledge Sharing	0.003	0.010	0.013	0.223	**0.058**
Organizational factor -> Individual Factor	0.443	0.462	0.184	2.403	**0.016**
Organizational factor -> Social Relations	0.279	0.299	0.109	2.564	**0.010**
task Characteristics -> Individual Factor	0.070	0.083	0.059	1.192	**0.045**

Table 4.6.7 Effect size and corresponding confidence levels

4.6.3 Summary of Analysis Results

In order to get a better overview, the results are also illustrated in Figure 11 with the path significances and R2 of the relevant constructs.

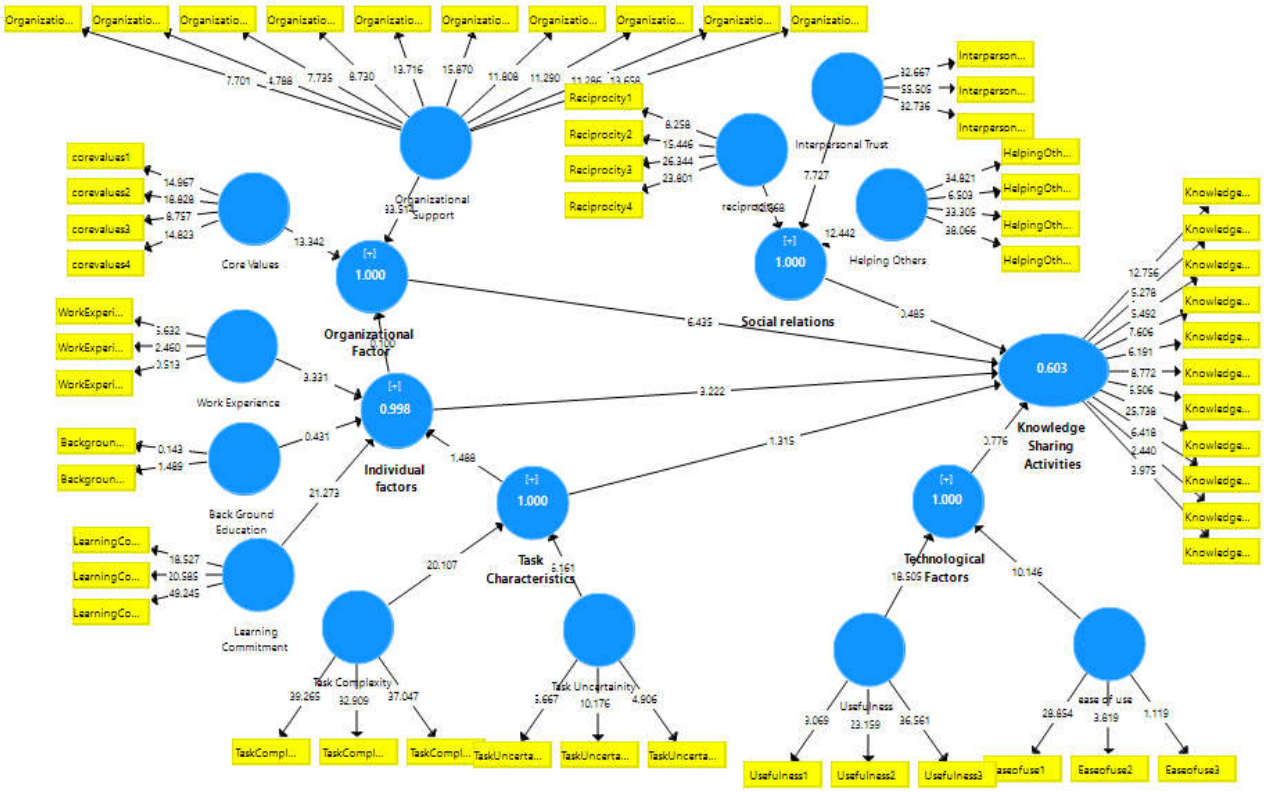

Figure 5: The overall complex structural model and its loadings

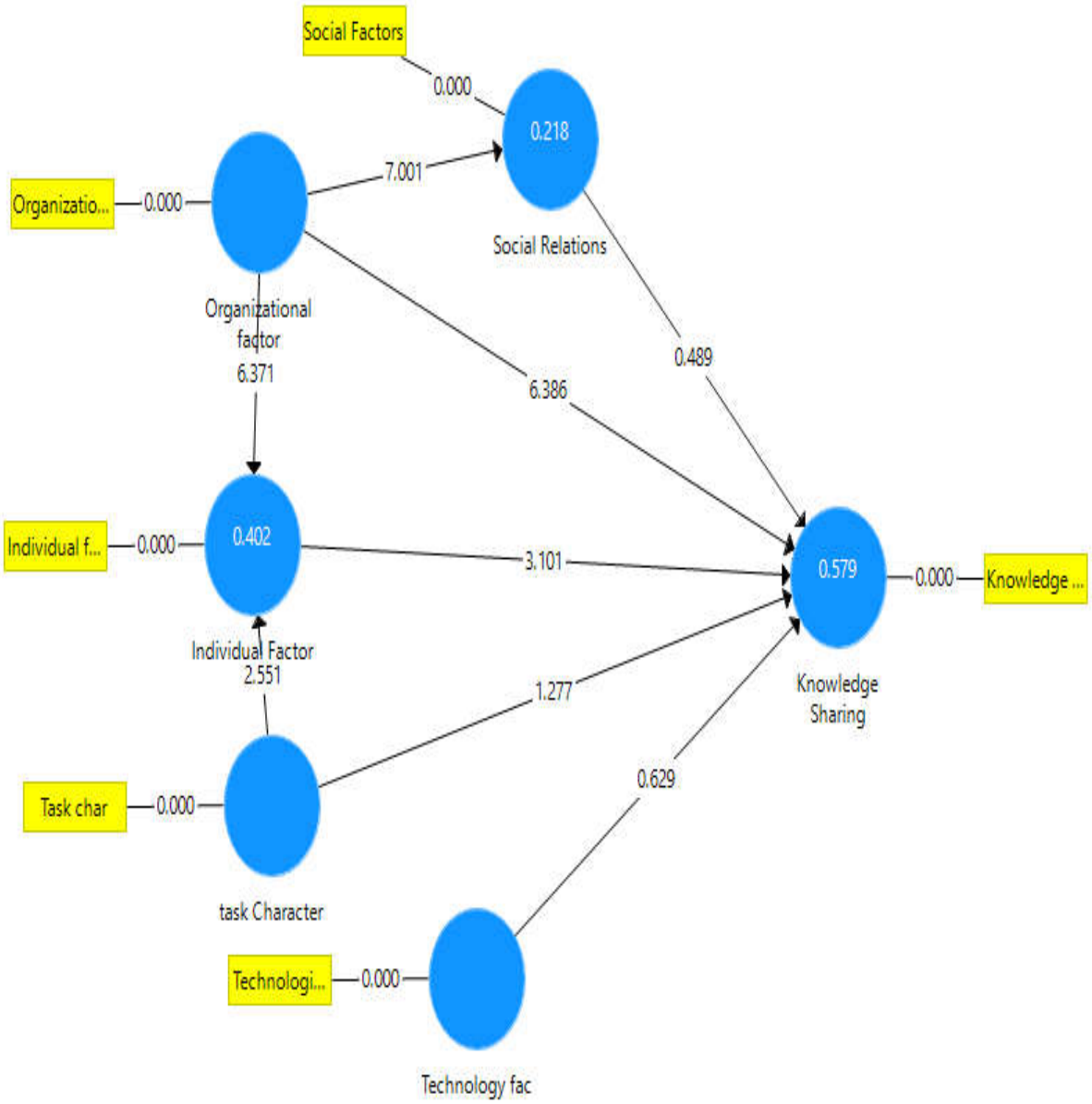

Figure 6 the final and the condensed form of the structural model and its loadings

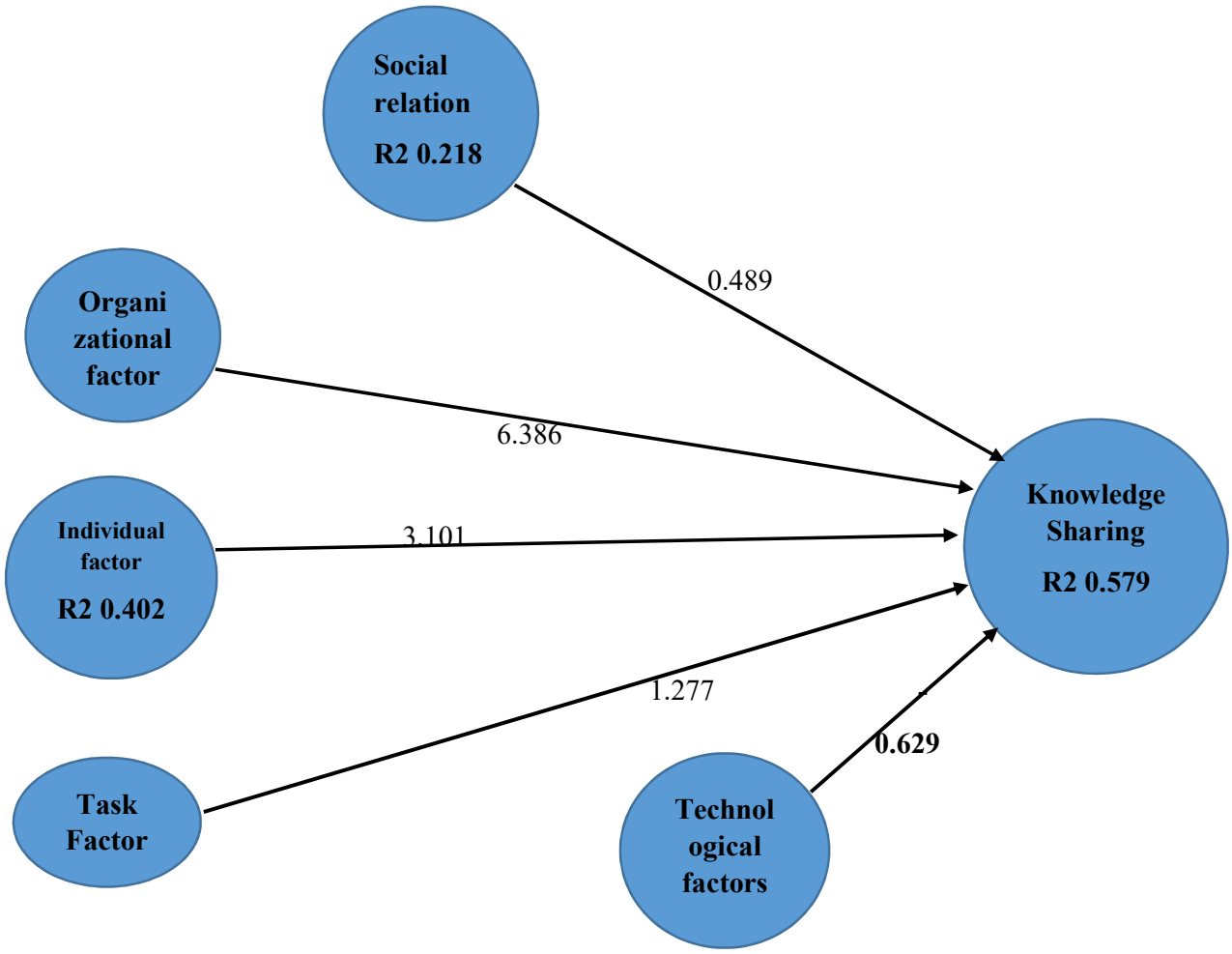

Figure 7 Model with path coefficients and R

In Figure 6 are also the path significances shown and it possible to conclude that the following can be concluded regarding the hypothesises:

The null-hypothesis H0: There are no significant effects on employees knowledge sharing characteristics due to Technological factors, Individual factors, Social relation, Task characteristics and Organizational factors. Therefore, the null hypothesis can be rejected and proven to be not true.

The Hypothesises that can be consider to have a strong impact are:

H1: Organizational factors (OF) impacts employees' intention to engage in knowledge sharing activities.

H2: Organizational factors (OF) impacts social relations (SR) intentions to engage employees in knowledge sharing activities.

H3: Organizational factors (OF) impacts Individual factors (IF) intentions to engage employees in knowledge sharing activities.

While the following Hypothesises can be consider to have a medium impact.

H4: Individual factors (IF) impacts employees intentions to engage in knowledge sharing activities.

H5: Task characteristics (TC) impacts individual factors (IF) intentions to engage employees in knowledge sharing activities.

While the following Hypothesises can be consider to have a low impact.

H6: Task characteristics (TC) impacts employees to engage in knowledge sharing activities.

H7: Technological factors (TF) impacts employees to engage in knowledge sharing activities.

H8: Social Relations (SR) impacts employees to engage in knowledge sharing activities

4.6.4 Discussion of the Results

This research identified different factors that causes employees intention to engage in knowledge sharing activities in commercial banks of Ethiopia. Organizational factors and individual factors were statistically significant. This is because the path coefficients for the R2 values for the individual factors and the organizational factor are significant to the level of acceptable range of values. On the other hand, technological factors, task characteristics and social relations was statistically insignificant since their path coefficients are insignificant to the acceptable range of values.

This research revealed that organizational factor is the leading factor that causes knowledge sharing activities in the work place. This finding is also consistent to findings in the current literature (Assefa et al., 2014). Even if there are quite a number of attributes which influenced knowledge exchange characteristics, organizational factors are widely seemed as the most crucial enabler of, knowledge sharing practices (Ajmal and Koskinen, 2008; Allen, 1984; Davenport et al., 1996; Leidner and Kayworth, 2006; McDermott and O'Dell, 2001; Tushman, 1977). Knowledge-associated practices require social relations and human interactions (Ajmal

and Koskinen, 2008; Hsu and Sabherwal, 2012; Lee et al., 2012; McDermott, 1999), and are designed and affected by organizational factors. The research findings by (Abdelwhab Ali et al., 2018), investigates the relationships among the organizational variables (management assistance, organizational recognitions, organizational structure and supportive organizational culture) and their relationships with knowledge sharing activities. The relationship between management assistance and knowledge sharing activities resulted a standardized path coefficient of 0.793, with a t-value of 11.253. The estimated path coefficient was significant at the level of $p < 0.001$; hence, the hypothesis is supported. Next to this the study investigates the impact of organizational recognitions on knowledge sharing. The estimated path coefficient was 0.474 and the t-value of 5.221 was found significant at the $p < 0.001$ level. The other findings is supported and demonstrates the positive impact of organizational recognitions on the activities of knowledge sharing within the organization. Furthermore, the study evaluates the relationship between organizational structure and knowledge sharing activities. The estimated path coefficient for this hypothesis is 0.224 and the t-value of 2.013 was found to be significant at the $p < 0.05$ level. Therefore, the findings are also supported and demonstrates that a less consolidated structure helps an organization increase the practice of knowledge sharing. The estimated path coefficient for the results was (0.840) which indicated a large extent of influence. This standardized path coefficient was associated with a highly significant t-value of (10.631) at the level of $p < 0.001$. Supportive organizational assistance also another finding which is coincide as having a positive effect on knowledge sharing. This also implied that the findings of the study also strongly supported the findings of the current study under considerations.

The studies respondents also stated that organizational factors which includes core values and organizational assistance stimulated them much more on employees' intentions to interact in knowledge sharing activities within their organizations.

Individual factor is the second important concern that causes individual knowledge sharing activities. There are numerous research findings support the results of the study. In order for knowledge sharing to be efficient, it needs for an essential exchange in the manner companies run their commercial business. That is particularly critical as the center of any basic alteration is the people themselves (Davis, 1998). The knowledge of the humans is created and communicated through social conversation among human beings and their innovative practices (Nonaka et al., 1996). Humans' conduct believed to be the most important particularly when it comes to facilitating and transferring knowledge sharing practices among employees (Bock et

al., 2005). This research finding is likewise constant to previous studies findings by (Ismail & Yusof, 2010).

This study did not find significant relationship between technological factors and knowledge sharing activities. The findings of this study concur with (Assefa et al., 2014) who identified that, even if most companies are given particular consideration to promote knowledge sharing practices "(*organizational and person factors*)" looked more vital. The findings of the study by (Lee, 2018) also in accordance with the findings of this study, technological factors were positively related to the magnitude of knowledge sharing, nevertheless with the quality of knowledge sharing. This end result supported with different studies that was approximately implied the positive consequences of technological factors on knowledge sharing. But, it did not have an influence on the quality of knowledge sharing, this indicate that technological factors were no longer influencer of the quality of knowledge sharing. Therefore, it could be elaborated that IT infrastructure is essential for knowledge sharing, however still it has insignificant impact on knowledge sharing, rather knowledge sharing is highly associated with individuals' motivations. However, in contrast of the expectation, smart device utilization was positively related to the magnitude of knowledge sharing, but not with the quality of knowledge sharing. On one hand the smart tool had the mobility that could help students to find the knowledge in timely fashion and effectively, which produces quality of knowledge sharing. On the other hand, the people' smart tool usage did not alter the magnitude of knowledge sharing. The findings of this study also in line with (Yang & Chen, 2007) following the rapid emerging of information technology, many organizations have already set up IT-based systems to aid business activities and IT acceptance has been gained much attentions recently. Therefore, technical knowledge skill is a fundamental necessary skill, not a pre-condition, in a knowledge organization.

Since knowledge sharing is a difficult task, the results of this study recommend nurturing this characteristics or activity through the improvement of organizational knowledge competences. If an organization possesses more organizational competences for combining knowledge resources so as to generate new competences, then knowledge sharing is likely to be more efficient. Our results indicate that technical, structural, and human knowledge competences all utilize significant impacts on knowledge sharing activities. Information and communication technology (e.g. e-mail, on-line forums, or search engines) are essential and familiar resources for organizational knowledge sharing; however, technical knowledge and competences are more indispensable than information technology itself.

(Alhousary & Underwood, 2016) Effective knowledge and invention management begins with a comprehensive policy combined with nurturing of organizational values that enables and acknowledges the sharing of valuable knowledge. Even if technology is vital to assist knowledge sharing and cooperation, more consideration needs to be paid to its content and use. It also cannot substitute essential face-to-face relations. Another study by (Al Nuaimi & Jabeen, 2020) also explored whether there was a relationship between information systems and knowledge transfer. The results suggest that information systems do not have much effect on knowledge transfer.

The majority of the respondents participated on this research also stated that there are no technological infrastructures which facilitates the sharing of knowledge within the banks environment.

This study did not find significant relationship between Task characteristics and knowledge sharing activities. The study also consistent with the findings of (Gagné et al., 2019) another credible description is that high levels of task characteristics can produce flawed job burdens that generate excessive challenges, with the concern that people preferred task completion rather than knowledge sharing. The findings also recommend that task characteristics is related to all three forms of knowledge hiding "(*i.e., evasive hiding, rationalized hiding, and playing dumb)*" through external rule to share knowledge. This study prolongs existing knowledge hiding research by observing the reasons why employees hide knowledge, and it explains how these enthusiasms are designed by task characteristics. This is not the first study to address task characteristics in relation to knowledge hiding, but it also makes influences that go beyond these associations. By investigating both knowledge hiding and sharing simultaneously, the authors defy our insights of the differences between the two concepts and of what drives them.

The findings of the study by (Offergelt et al., 2019) also coincide with the result of the current study according to his analysis, they find that "*evasive hiding and playing dumb*" are associated with complicated task characteristics such as task complexity and task uncertainty.

This study also did not find significant relationship between social relations and knowledge sharing activities. On one hand having a notable social relation with group members promotes effective knowledge sharing in the organizations. On the other hand ''*lack of social networks*'' generated difficulties for the groups (Zahedi et al., 2016), (Wendling et al., 2013). Interactions between old and new group members were negatively influenced by the absence of ''*social relations*''(Kukko, 2013). Low level and insufficient ''*social relations*'' of software development groups were also influenced knowledge sharing association between clients and

group members (Ghobadi & Mathiassen, 2016) . On the study findings of (Ali et al., 2018) Based on the social exchange theory and the values of social relations, this study revealed not only the significant negative association between social relations and knowledge sharings but also how this relationship is mediated by social relations in one's supervisor, which obliged as the fundamental inspirational mechanism building this relationship. For example, (Černe et al., 2014) recommends that an employee's experience of knowledge hiding by another employee first provokes a feeling of social interactions, which in turn motivates the victim to involve in reciprocal knowledge hiding from the delinquent of the knowledge hiding. Another study by (Al Nuaimi & Jabeen, 2020) also aligns with the social exchange theory, which states that workers mostly prefer to participate or get involved in situations that are most attractive to them or which promote their individual interests. These include motivators such as need for autonomy or mastery, and not just social relations. This can be further explained as the impact of social relations on knowledge sharing dependent on the context of the organizations. For instance, in such organizations mainly focuses on competitive advantages like banks the impact of social relations has a low significant impact on knowledge sharing practices. This also was confirmed by Law et al. (2017).

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section contains the conclusion of the study and recommendations based on the study findings that the study made. The section also provided suggestions for future studies.

5.2 Conclusions

The primary objective with this thesis study was to identify factors influencing employees' intentions to engage in knowledge sharing activities in commercial banks of Ethiopia. The results show that organizational factor and individual factor have significant effect on knowledge sharing activities.

The study employed a quantitative study approach using survey questionnaire data collection and provided a detailed investigation and understanding of the factors influencing knowledge sharing in terms of the meanings and point of views the participants bring to them.

Based on the findings of this study, the study concluded that organizational factor and individual factors were very essential influential factors for influencing knowledge sharing activities in the work place. Organizational factors such as core values and organizational support contributed a vital role in promoting and exchanging of knowledge sharing activities among employees of commercial banks. On the other hand, individual factors also influence the level of knowledge sharing activities.

Reviewing the research questions from chapter 1 it can be concluded that the main aspects to consider in order to promote and facilitate knowledge sharing in the work place are organizational and individual factors. In other words, organizations must focus on the organizational core values and support in order to create a harmonious working environment which will facilitate the knowledge sharing culture. To keep in mind also is that for individuals to actively participate in the knowledge sharing activities, there must be some support and motivations for the individuals which will triggers to acquire new knowledge in their background education, to innovate new ideas and concepts and also helps to advance in their future careers.

5.3 Recommendation for Practices

This study provides some useful insight for commercial banks of Ethiopia managements and stakeholders who often need to take affirmative actions on promoting knowledge sharing

activities among employees in the work place. The study also serves as a bench mark for practitioners who are interested to examine the relationships of the factors influencing knowledge sharing activities in the work place.

This study also has a significant contribution for those who are interested to design a knowledge management system for commercial banks of Ethiopia. This can be achieved by taking the theoretical framework of this study under consideration.

5.4 Implications of the Study

This study has several theoretical and practical implications. First, this study highlights several factors related to knowledge sharing and therefore provides an insight for commercial Banks of Ethiopia to understand the knowledge sharing practices in organizations. Second, the findings suggest that knowledge transfer is away for companies to increase their knowledge capacity. This has implications for company wishing to adopt knowledge sharing to get the best out of their employees. Any company considering the adoption of knowledge transfer must be ready to make operational and technical changes in their company.

5.5 Suggestions for Future Research

Although this research provides new insights and draws valuable lessons with regard to knowledge sharing practices, there are some limitations which are worth noting as they open up paths for future research.

Firstly, this study considered only five of the commercial banks in Ethiopia as a research participants. Which can be considered as a small number, comparing to the total number of commercial banks operating in the country. In addition to this, the sample size taken to conduct the study was a total of 250 respondents. This implied that the above-mentioned factors have its own negative impact on the result of the current study. Future researches, will get a better result, if they include large number of participant banks and also considering of large number of sample sizes in their studies.

Secondly, this study is conducted on banking sector. Future research conducted in different sectors would verify the findings of this study and may yield additional insights. Conducting future study in different sectors would enable researchers to obtain an overall picture of the phenomenon or perform a comparison between commercial banks and other organizations.

Finally, this study might be extended by investigating the impact of the mediation effects of the factors in the research model.

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APPENDICES

Addis Ababa University
School of Information Science

Date……..

Dear Sir,

RE: VOLUNTARY PARTICIPATION IN DATA COLLECTION

The purpose of this survey is to collect data for a master's thesis research entitled "***Knowledge sharing among employees of commercial banks in Ethiopia***". Your feedback and views are highly valuable to complete my research. Therefore, I highly appreciate your effort for taking time to fill this questionnaire and return it as quickly as possible. Besides the main purpose of fulfilling academic requirements, the research result will be also beneficial to your organization. I also promise to share the research results to your organization. All responses received are anonymous and the data collected will not be distributed to any other third party.

Thank you for taking time to complete this survey.

Yours Sincerely,
Fitsum Abebe

Section I: Demographic information about respondents

Please tick the box that best describes yourself and your organization.

Sub-section One: - About yourself.

1. Gender

☐ Male ☐ Female

2. Age group (Years)

☐ 18-20 ☐ 21 to 30 ☐ 31 to 40 ☐ 41 to 50

3. Highest level of education

☐ High school or equivalent ☐ Bachelor Degree

☐ Vocational or diploma ☐ Master degree or Higher

4. Position in your organization

☐ Junior ☐ Manager

☐ Expert/Senior expert ☐ Head of department

☐ Supervisor ☐ Other (Please specify) _____

5. Your Department

☐ Customer service ☐ Credit management

☐ Foreign banking ☐ Research and development

☐ IT ☐ Administrative support

☐ Other specify _____

6. For how long have you worked with your organization (Years)

☐ 0-1 ☐ 2-5 ☐ 6-10 ☐ Over 10 years

Sub-section two: - About Your Organization.

1. **Tick the name of your Organization**

   ☐ Nib International Bank

   ☐ Awash International Bank

   ☐ Dashen Bank

   ☐ United Bank

2. **Number of employees employed in your company**

   ☐ 2-9 ☐ 10-49 ☐ 50-100 ☐ 100-199 ☐ 200 and above

3. **Number of years your company has been in business**

   ☐ Less than 1 year ☐ 1-5 ☐ 6-10 ☐ 11-50 ☐ Over 5

1.

II: Knowledge sharing characteristics in the organization

Please indicate the extent to which you agree or disagree with each of the following statements regarding knowledge sharing characteristics in your organization.
Circle **(O)** a number from 1 to 5 that best represents your level of agreement with the statement, where 1 = 'strongly disagree', 2 = 'disagree', 3 = 'Neutral', 4 = 'agree' and 5 = 'strongly agree'

Note: Here, the term knowledge means the individual's know-how or something which is helpful in solving problems in the organization. Knowledge sharing means providing or transferring one's knowledge to others. Knowledge sharing is possible through various methods such as formal and/or informal meetings and information systems.

	Category 1: knowledge Sharing Activities	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	The Bank encourages employees to learn from one another (such as mentoring).					
	The office design is suitable for informal knowledge (personal communication) sharing.					
	The Bank rotates employees at different locations to acquire knowledge from senior employees.					
	The Bank regularly organizes on the job training to promote knowledge sharing from senior to junior employees.					
	Whenever a new knowledge is created in terms of new experience, process etc., it is shared formally.					
	The Bank promotes team work so as to promote knowledge sharing.					
	The Bank prepares knowledge sharing sessions to employees with other banks.					
	The Bank implemented a system/database to keep the knowledge of employees.					
	A high proportion of our internal knowledge sharing is achieved through intranet.					
	The Bank organizes face to face meetings to share knowledge.					
	The Bank is open to recognize knowledge created by employees and incorporate in its procedure manual and policies.					

Section III: Organizational factors influencing knowledge sharing Practices

Please indicate the extent to which you agree or disagree with each of the following statements regarding Knowledge sharing characteristics in your organization.

Circle (O) a number from 1 to 5 that best represents your level of agreement with the statement, where 1 = 'strongly disagree', 2 = 'disagree', 3 = 'Neutral', 4 = 'agree' and 5 = 'strongly agree'

	Category 1: Organizational Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	Organization support					
	The Bank organizes different on the job training programs.					
	The Bank provides technical, refreshment and developmental trainings and sponsors employees to join universities to upgrade their qualifications.					
	The Bank sponsors employees to attend different training program in local as well as international universities.					
	The Bank organizes district, branch and department level meetings to share experiences among its employees.					
	Teamwork is a common practice in the Bank to facilitate knowledge sharing among employees.					
	Job rotation creates a favorable context to effectively acquire tacit knowledge of the Bank.					
	The Bank promotes to reuse its existing knowledge.					
	The Bank uses apprenticeship as a forum to promote knowledge sharing from seniors to junior employees.					
	The Bank provides monetary incentives to encourage employees to engage in knowledge sharing activities.					
	The Bank has open office layout structure in all its branches.					
	Core values					
	The Bank provides on the job training when it introduces new services or products.					
	When the Bank introduces new technology, it provides intensive on the job training to its employees to fill their knowledge gap.					
	The Bank is risk adverse organization. Slight mistakes are not tolerated in the Bank.					
	The Bank recognizes its human capital development as one of its core values.					

Section V: Individual factors influencing knowledge sharing practices

Please indicate the extent to which you agree or disagree with each of the following statements regarding adoption and utilization of technology in your organization

Circle **(O)** a number from 1 to 5 that best represents your level of agreement with the statement, where 1 = 'strongly disagree', 2 = 'disagree', 3 = 'Neutral', 4 = 'agree' and 5 = 'strongly agree'

	Category1:Individual Factors/Learning commitment	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	Work experience					
	Lack of experience is the main individual factor that promotes employees to engage in knowledge sharing activities.					
	The Bank work environment does not allow employees to learn by trial and error methods on the task.					
	Bank knowledge is unique which is only acquired by working in the Bank.					
	Background education					
	The Bank assigns employees to positions they do not have relevant background education.					
	Employees are expected to do the task following the bank's procedure manual even though they have no background training on the task.					
	Learning commitment					
	The Bank encourages individuals' initiation to learn new knowledge and helps to institutionalize it.					
	In the Bank, you have to update yourself to go with new development and changes					
	The Bank work environment is characterized by productivity and personal growth; employees are always engaged in continuous learning.					

Section IV: Social relations influencing knowledge sharing practices

Please indicate the extent to which you agree or disagree with each of the following statements regarding Knowledge Sharing characteristics in your organization.

Circle **(O)** a number from 1 to 5 that best represents your level of agreement with the statement, where 1 = 'strongly disagree', 2 = 'disagree', 3 = 'Neutral', 4 = 'agree' and 5 = 'strongly agree'

	Category 1: Social Relations	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	Reciprocity					
	My knowledge sharing would benefit me to share my task burden to other employees in the Bank.					
	When I share knowledge, others will also share me their knowledge.					
	My knowledge sharing would help me in deepening my own personal knowledge.					
	I share knowledge to create harmonious work environment with my colleagues.					
	Helping others					
	When I share my knowledge, it gives me internal satisfaction.					
	When I am asked to share my knowledge, I consider it as a reward and I share my knowledge.					
	Sharing my knowledge with colleagues is pleasurable.					
	I like helping others by sharing my knowledge.					
	Interpersonal trust					
	In the Bank, employees are trusted with each other and it also promotes knowledge sharing.					
	The interpersonal trust that exists among employees is a culture in the Bank.					
	Bank risks are a collectively responsibility so that we support each other by sharing knowledge.					

Section VI: Technological factors influencing KS practices

Please indicate the extent to which you agree or disagree with each of the following statements regarding Knowledge sharing characteristics in your organization.

Circle **(O)** a number from 1 to 5 that best represents your level of agreement with the statement, where 1 = 'strongly disagree', 2 = 'disagree', 3 = 'Neutral', 4 = 'agree' and 5 = 'strongly agree'

	Category 1: Technological Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	Usefulness					
	The Bank has Internet to access a variety of knowledge sources by employees.					
	The Bank has Intranet to overcome distance barrier to share knowledge among employees in different branches.					
	Employees have access to different technologies like e-mail, Intranet, online database, etc.to share knowledge.					
	Ease of use					
	The Bank uses advanced IT technologies like, Skype, share point videoconferencing and teleconferencing to share knowledge.					
	The Bank does not have adequate technologies to share knowledge with other employees.					
	In the Bank knowledge is stored in the knowledge repository; employees can access the knowledge at any time they want.					

Section VII: Task characteristics influencing knowledge sharing practices

Please indicate the extent to which you agree or disagree with each of the following statements regarding Knowledge sharing characteristics in your organization.

Circle **(O)** a number from 1 to 5 that best represents your level of agreement with the statement, where 1 = 'strongly disagree', 2 = 'disagree', 3 = 'Neutral', 4 = 'agree' and 5 = 'strongly agree'

	Category 1: Task characteristics	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	Task complexity					
	My job involves a great deal of task variety and requires me to acquire new knowledge.					
	My job involves doing a number of different things and requires me to acquire new knowledge.					
	My job requires the performance of a wide range of tasks.					
	Task uncertainty					
	The task in the Banks lacks specificity and structure in task inputs, process and outputs and requires me to acquire new knowledge.					
	The Bank task is complex that requires skill of different expertise inputs and this require me to acquire new knowledge.					
	The Bank is risk adverse organization. When the task has high uncertainty characteristics, employees have frequent discussion with their colleagues so as to minimize errors in the task.					

Table 4 Source Adapted from: (Assefa et al., 2014)