ADDIS ABABA UNIVERSITY

COLLEGE OF NATURAL AND COMPUTATIONAL SCIENCES

SCHOOL OF INFORMATION SCIENCE

Assessing organizational E-readiness for knowledge management system implementation:

The Case of Commercial Bank of Ethiopia

BiniyamZewdu

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A Thesis Submitted to the School of information science of Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of Master of Science in Information Science

By

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June, 2017

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Acronyms

Acronyms

AVE	Average Variance Extracted
BARS	Behaviorally Anchored Rating Scales
CBE	Commercial Bank of Ethiopia
CKO	Chief Knowledge Officer
CRM	Community Readiness Model
CSFS	Critical Success Factors
DIKW	Data-to-Information-to-Knowledge-to-Wisdom
DN	Domain Name (DN)
E-Readiness	Electronic Readiness
FIs	Financial Institutions
HEI	Higher Education Institution
HR	Human Resource
HRM	Human Resource Management
ICT	Information and Communication Technology
ISPs	Internet Services Providers
KM	Knowledge Management
KMS	Knowledge Management System
PEER	Perceived Environmental E-Readiness (PEER),
PKI	Public Key Infrastructure
PLS-SEM	Partial Listing Square StarcturalEcuation Modeling
POER	Perceived Organizational E-Readiness (POER)
R-Square	Coefficient of Determination
SKMS	Service Knowledge Management System
STOPE	Strategy, Technology, Organization, People and Environment

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Abstract

Electronic readiness as a global agenda and is not entirely a new concept, but e-readiness for knowledge management at the organizational level is still in its infancy (Eric Lou, 2010). In this study, an advanced state of organizational e-readiness is needed for a business to expand domestically and internationally to compete readily in the global open market. It is therefore, Organizations must be readily prepared to adopt new Information based system, and be prepared to leverage information technology for knowledge management in order to gain competitive advantage and improve business efficiency.

It is explored by different researcher that r-readiness for knowledge management has the ability to transform the society in to more modern ways of thinking.However, many organization failed in adopting it. A primary reason for failure is the lack of assessment of organizational readiness. To reduce failure risk, Organization should assess their readiness for adopting knowledge management e-readiness to identify some weak points which have to be improved by taking some improvement action. This paper is adopting an approach based on the STOPE “strategy, technology, organization, people, and environment " framework for conducting e-readiness assessments. The approach views the previous literature on e-readiness assessment through the eye of the STOPE domains, providing an integrated framework of the factors that has been taken into account in such assessments. In the meantime, the approach also keeps the light on adding and integrating other potential factors.

Based on SmartPLS 3 Statistical software estimating the complex cause-effect model using collated data from questionnaires to test the hypothesized relationships to assess the knowledge management e-readiness of commercial bank of Ethiopia in order to gauge a company’s appetite for the work involved before implementing the knowledge management system. The result finding shows that variable from the main factor strategy to the lowerfactor Organization are identified and improvement forwarded based on strength and weakness of the bank in connection with Knowledge management e readiness.

ChapterOne

Introduction

1.1. Introduction

Now a day's Knowledge is introduced as the most important property in the Banking Industry and knowledge management is generally known as a discipline for identification, collection, organization, storage, sharing and application of knowledge (Akhavan, 2009). In the current competitive environment, the factors leading to bank success are no longer simply in the investment of capital, labor and raw material, but in the ability of knowledge innovation from all the members of an organization. Knowledge management has secured an important position in this new era of competitive business environment. Because of this ever increasing global competition and change the traditional organizational management is no longer considered as an appropriate strategy. (Druker, 1993) pointed out that the concept of knowledge workers will have the most vital asset in a knowledge based economy and will be the only source for competitive advantage.

One of the key success factors of financial institutions (FIs) is the effective and efficient application and deployment of information and knowledge systems in the areas of operations, management, accounting and marketing. However, organizations must compete for their survival through continuous improvement and innovation to gain competitive advantage. The monetary value of such investments makes it critical for the banks to use the right information system and knowledge management system. Not only in developing country, but throughout the world, Banks are becoming more dependent on information system and technology. Information and Knowledge has dramatically changed the core of operations of business especially the banking institutions. The growth of the knowledge management infrastructure has increased the competition among the banks which has led to strategies for customer satisfaction and human resource management improving organizational performance.

Unfortunately, there's no universal definition of knowledge management (KM), just as there's no agreement as to what constitutes knowledge in the first place. For this reason, many literature considered as best to think of KM in the broadest context. However, for our research purpose knowledge management (KM), is the process through which organizations generate value from their intellectual and knowledge-based assets (Meredith Levinson, 2007). Most often, generating value from such assets involves creating and sharing the corporate memory among employees, departments and even with other companies in an effort to devise best practices. It's important to note that the definition says nothing about technology; while KM is often facilitated by IT, However technology by itself is not KM. What is important in this definition is that KM involves knowledge creation, refinement, sharing, acquisition, and utilization. Thus the KM function is the organization that facilitates these processes, and the development of a system that motives employees to participate (William R. 2009).

There is probably no segment of activity in the world attracting as much attention at present as that of knowledge management including Data, Information and Knowledge (Dorval Castro, Anthony Mills 2006). As Big Data is becoming more and more popular, those words can now a days be found in practically every business and literature publications. But what are we exactly talking about? As literature dictate in different research of activity there didn't seem to be a wealth of sources that seemed to make sense in terms of defining what knowledge actually it, and how it differentiated from data, information.

What is the relationship between data information and knowledge? The research will try to discuss this in the context of knowledge management activity. A basic understanding of Data, information and knowledge helps in understanding of knowledge management system.

1.1.1 The DIKW Pyramid

The presentation of the relationships among data, information, knowledge, and sometimes wisdom in a hierarchical arrangement has been part of the language of information science for many years. Although it is uncertain when and by whom those relationships were first presented, the ubiquity of the notion of a hierarchy is embedded in the use of the acronym DIKW as a shorthand representation for the data-to-information-to-knowledge-to-wisdom transformation (Wallace, Danny P. 2007)

1.1.1.1 Data

Data has experienced a variety of definitions, largely depending on the context of its use. For example, Information Science defines data as unprocessed information and other domains define data as a representation of objective facts. In computer science expressions such as a data stream and packets of data are commonly used. Other commonly often talking about data as it is discrete or raw data. What do these expressions point to for our conceptual understanding of data? The over whelming conceptualizations of data are A Resource, and Data Are Manipulated Objects. That is, Data is solid, physical, thing with an objective existence. Yet despite this possibility of manipulation there is a limited amount of actions that we can perform on data. Data is understood as discrete, atomistic, tiny packets that have no inherent structure or necessary relationship between them.

1.1.1.2 Information

If data is seen as both a physical, external substance and are source how then do we conceptualize information? It turns out we have many similar, but subtly different, representations with which we use to describe and reason about information. It is a data that has been given meaning by way of relational connection. In other way Information is a message that contains relevant meaning, implication, or input for decision and/or action. Information comes from both current and historical sources. In essence, the purpose of information is to aid in making decisions and/or solving problems or realizing an opportunity.

1.1.1.3 Knowledge

Knowledge Although we have seen that there are large similarities between our conceptual representation s of both information and data we shall see that knowledge resists clean understanding through those same metaphors. Significantly, knowledge appears to be a quite different entity to either information or data. Knowledge is generally personal, subjective and inherently local it is found within the head s of employees rather than existing objectively without. Knowledge is internalized by the knower, and as such is shaped by their existing perceptions and experiences. Knowledge is a fluid mix of framed experience, values, contextual information, expert insight and grounded intuition that provides an environment and framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations it often becomes embedded not only in documents and repositories but also in organizational routines, processes, practices and norms

1.1.2 Organizational e Readiness for Knowledge Management

Organizational readiness is now a popular and widely used term with varying definitions. The general definition supplied in the existing literature use the word “readiness” as a necessary pre-condition for a person or an organization to succeed in facing organizational change (Holt, 2000). However, the literature on organizationale readiness for KM is clearly limited and more attention needs to be given to this area as it is deemed to be a critical precursor influencing the successful implementation of KM (Siemieniuch and Sinclair, 2004); Kamara et al., 2002). According to (Mohammadi et al., 2009), Knowledge Managemente readiness is the ability of an organization, department or work group to successfully adopt, use and benefit from KM. Readiness is an essential element that needs to be managed in the early planning phase of KM initiatives. For successful KM implementation, organizations need to assess whether their organization is readily equipped before they embark on KM programs. (Siemieniuch and Sinclair, 2004) note that organizations need to demonstrate certain characteristics in order to implement KM. Any change in an organization is difficult therefore organizational leaders are encouraged to assess the e readiness of their organization to adopt change prior to implementation in

order to be successful which would avoid failure, the wasting of recourses, time and efforts.

A common short-sight for KM implementation is the readiness level of organizations to adopt KM strategies (IN MohdZin, 2010). Additionally, assessment of an organization's e readiness could serve as a guideline to leaders as they planned implement KM initiatives (Holtet al., 2004).

Hereafter, in order for systems to be prepared for change in terms of organizational e readiness, organization needs to asses and plan their organizational preparedness for knowledge management implementation. This paper highlights on importance of the e readiness of organization towards the knowledge management system implementation.

1.1.3 Review of Commercial bank of Ethiopia

This paper mainly focus on Commercial bank of Ethiopia (CBE): The history of the Commercial Bank of Ethiopia (CBE) dates back to the establishment of the State Bank of Ethiopia in 1942. CBE was legally established as a share company in 1963. In 1974, CBE merged with the privately owned Addis Ababa Bank. Since then, it has been playing significant roles in the development of the country. Currently, As the Research Conducted, It has more than 1000 branches stretched across the country. The leading African bank with assets of 311 billion birr as of September 30th 2015, And Plays a catalytic role in the economic progress & development of the country. CBE has more than 11 million account holders and the number of Mobile and Internet Banking users also reached more than 460,000 as of September 30, 2015. Active ATM card holders reached close to a million.

It has strong correspondent relationship with more than 50 renowned foreign banks like Commerz Bank A.G., Royal Bank of Canada, City Bank, HSBC Bank. CBE has a SWIFT bilateral arrangement with more than 700 others banks across the world. CBE combines a wide capital base with more than 22,000 talented and committed employees. Pioneer to introduce Western Union Money Transfer Services in Ethiopia early 1990s and currently working with other 20 money transfer agents like Money Gram, Atlantic

International (Bole), Xpress Money. CBE has opened four branches in South Sudan and has been in the business since June 2009.CBE has reliable and long-standing relationships with many internationally acclaimed banks throughout the world

1.1.3.1 Vision

To become a world-class commercial bank by the year 2025.

1.1.3.2 Mission

We are committed to best realize stakeholders' needs through enhanced financial intermediation globally and supporting national development priorities, by deploying highly motivated, skilled and disciplined employees as well as state-of-the-art technology. We strongly believe that winning the public confidence is the basis of our success.

1.1.3.3 Commercial bank of Ethiopia knowledge management practice

The bank is currently managing knowledge by implementing Policies (explains what should be done and why), Procedures (step-by-step instructions on how to complete tasks), and a Guidelines (Recommended but Non Mandatory Control), which all employee are strictly expected to follow the step provided for doing a given task. This policy and procedure is distributed to all staff by assumption that all employee will have common understanding on a given task, even when the employee leave the bank the content remain in the bank corporate memory, meanwhile when the bank update/delete the content immediately distributed to all staff through different communication channel like Fax, Telephone, intranet, E-Mail, Meeting, Letter of Memorandum etc... Besides all experts are Working in line with the bank's beliefs and culture. However due to weak organizational readiness assessment the individual knowledge is not the same throughout the organization creating application of procedure vary from branch to branch that lead to degrading corporate memory.

1.2. Statementof the Problem

The concept of knowledge management and the degree to which its value is out pacing the tangible assets of companies has become an issue of concern and challenge for many financial organizations and managers. Proving the quantitative benefits of knowledge management practice that deal with intangibles such as “knowledge” and “knowledge management” is often more challenging than other information systems practices (Ramirez, 2007).

Organizational e readiness for knowledge management is considered a critical precursor to the successful implementation of KM in organization settings (Siemieniuch and Sinclair, 2004; Kamaraet al., 2002). The implementation of knowledge management is not only difficult but also risky if the company do not know what knowledge they have and the importance of it (Faiet al., 2005). Furthermore, (Haggie and Kingston, 2003) state that organizations will not survive in the modern Knowledge Era unless they have a strategy for managing and leveraging value from their intellectual assets. Failure in practicing KM e readiness may waste resources in developing capitals, tools or policies that will not benefit any organization. Indeed, some suggested that failure to assess organizational knowledge managemente readiness also might result in significant loss of time and energy of managers dealing with resistance to KM (Mohammadiet al., 2009) and failure to achieve its planned value.

Some of knowledge management implementation projects result isunsuccessful. It happened because it is done only based on the theory and not considering the e readiness aspects of the organization. According to research institutions in the UK (British Telecommunications PLC), the failure rate of the project management knowledge is 70% (Lovinta H. and Kridanto S., 2009).Studies have shown that where organizational leaders did not undertake a process of creating e readiness, but instead overestimated the degree of preparedness within the organization and its employees, the implementation effort either experienced false starts from which they mightor might not recover, the change

efforts hindered as resistance increased, or the effort failed altogether (Dennis R Self,and Schrader 2009; Weiner BJ, AmickH, &Lee SY 2008).

In line with the above understanding this research will mainly answer the following listed practical knowledge management e readiness challenges and problem in managing knowledge:

- What are the potential challenges that may arise when implementing knowledge management with in CBE current organizational context?
- What are the root causes of organizational knowledge management initiative experienced false starts.
- What are the main causes of CBE organizational change initiatives to become unsuccessful with counting big failure rates?
- Having much effort, why organizational Knowledge is not effective as expected?

1.3. Objective of the Study:

1.3.1 General Objective

The primary objective of the research is to identify the level of knowledge management e readiness of commercial bank of Ethiopia before embarking knowledge management implementation.

1.3.2 SpecificObjectives

- Examine the Banks's current knowledge management readiness. To focus, more on challenges variables before embarking on a KM initiative?
- To examine the strength and weakness of the bank in connection with Knowledge management readiness enablers
- Addressing the current complex challenge of resources management in building preparedness to enhance organizational development

1.4. Scope of the study:

The study is focusing on assessing commercial bank of Ethiopia knowledge management e-readiness that attempt to gauge how ready a commercial bank of Ethiopia is to benefit from information technology to implement knowledge management system. In related to data collection the bank's branch and Head office sub organs are increasingly enlarged and geographically distributed all over the country.

Due to easy of data accessibility and time constraints the study is conducted with selected Head Office organs (Finance, Human Resource, IT, Marketing, and Strategy) and targeted, grade four, branches (Addis Ababa, Finfine, and Sengatera Branch) which are fall under the area of Addis Ababa city.

1.5. Significance of the study:

This study is expecting to give a better understanding to the researchers how KM E-Readiness assessment are meant to guide development effort by providing benchmarking for comparison and gauging progress in the banking industry. By doing so not only banking but also other stockholder like financial institution, government body, and research on customer satisfaction will be benefited.

In Line with this The Research is expected to contribute in such a way that:

- To push the bank to alien knowledge management with the strategy
- The research expected to be an input to those who conduct similar research.

1.6. Organization of the Thesis

- Chapter – 1: Introduction

The first part of the thesis presenting the background of the commercial bank of Ethiopia in related to knowledge management e-readiness, briefly explain causes related with it and describe objectives how to achieve e readiness within restricted research domain.

- Chapter – 2: Literature review

Reviewing different literatures about knowledge management specifically related studies about Organizational readiness for KM and identifying research gap

- Chapter – 3: Research Model and Hypothesis

Related works have been identified and setup conceptual model and develop research hypothesis

- Chapter – 4: Research Methodology

Using quantitative data collection method distribute questioners to the selected employs of commercial bank of Ethiopia using literature supported sampling techniques.

- Chapter – 5: Data analysis and interpretation

Based on the data collected data clearing and mapped to CSV format and analyzed using smartPls data analysis statistical tool and Interpret the result and Findings

- Chapter – 6: Conclusion and recommendation

All findings have been concluded based on the finding and propose recommendation by pointing future study.

Chapter two

Literature review

2.1 Introduction to Knowledge Management

This Chapter, A literature review, discusses published information precisely related to:

- The definitions, Theory, Processes, and, Practice of knowledge management.
- How Literature Reflects knowledge management why still becomes Issues and Challenges in Organization, And:
- Conducted research related to knowledge management practices in Financial Institution.

It is known that Knowledge Management concepts have actually been around for centuries? It's really nothing new. In fact, people like Albert Einstein and Peter Drucker were commonly using Knowledge Management concepts many years ago by sharing knowledge with their colleagues." While that is nice to know, such common stories do little to help business leaders and KM professionals understand the complexities of successfully implementing a KM Practice in today's business environment in line with the potential competitive advantages that can be achieved. Surprisingly why, after so long, is it still so difficult to implement? What today's Knowledge Management professionals need to know? What to expect when they begin to plan and implement Knowledge Management strategies for their organizations and deal with the real issues that make KM implementations so difficult. The purpose of this study was to assess the interaction of intellectual capital assets and corporate memory in knowledge management and practice at Commercial Bank of Ethiopia.

2.2 The concept of Knowledge

The theory of knowledge and learning is very broad, with roots in philosophy, cognition, psychology, and organizational theory. Before discussing knowledge management, it is important to ground the discussion in knowledge. The concept of knowledge is taken as having developed chronologically over time (Nonaka& Takeuchi, 1995). Various writers (Beckman, 1999; Bhatt, 2001; Davenport &Prusak, 1998; Nonaka& Takeuchi, 1995; Probst, Raub, &Romhardt, 2000; Wiig, 1999) have describe the term knowledge differently, with the various definitions seen as having one thing in common that knowledge is related to a process, often thought to involve human action. Table 2-1 presents some definitions of knowledge revealed in the literature. (Awad and Ghaziri, 2004) view knowledge as "understanding gained through experience or study", while (Nonaka and Takeuchi 1995) see knowledge as a dynamic human process of justifying personal belief toward the truth created by the flow of information anchored in the belief and commitments of its holder. Knowledge has its 10 active and subjective nature represented by such terms as commitments and belief that are deeply rooted in individuals; thus emphasizing that knowledge is essentially related to human actions.

Source	Definition
Wiig, 1999	Knowledge consists of truth and beliefs, perspectives, concepts, judgments, expectations, methodologies and "know-how".
Bhatt, 2001	Knowledge is an organized combination of data assimilated with a set of rules, procedures, and operations learned through experiences and practice.
Davenport & Prusak, 1998	Knowledge is a fluid mix of framed experiences, values, contextual information, and expert insights that provide a framework for evaluating and incorporating new experiences and information. It originates and is applied by the middle of knowers.

	In organizations, it is often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices and norms.
Nonaka& Takeuchi, 1995	Knowledge is "justified true belief". It is a dynamic human process of justifying personal belief toward the "truth"
Beckman, 1999)	Knowledge is reasoning about information and data to actively enable performance, problem solving, decision making, learning and teaching
Probst, &Romhardt, 2000	Knowledge is the whole body of cognitions and skills which individuals use to solve problems. It includes both theories and practical, everyday rules and instructions for action. Knowledge is based on data and information, but unlike these, it is always bound to person. It is constructed by individuals, and represents their beliefs about causal relationships.
Davenport, De Long, & Beers, 1998	Knowledge is information combined with experience, context, interpretation, and reflection.
wad &Ghaziri, 2004	Knowledge as "understanding gained through experience or study"
Sowa, 1984	Knowledge encompasses the implicit and explicit restrictions placed upon objects (entities), operations, and relationships, general and specific heuristic as well as inference procedures involved in the modeled.

Table 2.1: Definitions of Knowledge

The definition of (Davenport and Prusak, 1998) a definition that illustrates the value of knowledge and highlights the difficulty of defining knowledge in a neat and simple way. They defined knowledge as "a fluid mix of frame experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences" (p. 5), and further, that it originates and is applied in the minds of the knower. In the organization, it often becomes embedded, not only in the documents or repositories but also in organizational routines, practices, and norms. Knowledge, therefore, is a mixture of various elements; it is fluid as well as structured; it involves experience, truth, judgment, and rules of thumbs (Davenport &Prusak, 1998).

In order to think productively about the problems of managing knowledge, the distinction between data, information, and knowledge also needs to be distinguished (Beckman, 1999; Bhatt, 2001; Davenport, et al., 1998; Davenport &Prusak, 1998; De Long & Fahey, 2000; Prusak, 1997). Although these three terms are usually used interchangeably in practice, data are merely raw, objective facts, whereas information is considered as structured and organized data, knowledge, on the other hand, is described as an organized combination of data assimilated with a set of rules, procedures, and operations learnt through experiences and practices (Bhatt, 2001). Furthermore, knowledge is information combined with experience, context, interpretation, and reflection; knowledge production adds value to the information (Davenport, et al., 1998). Although most scholars agree that knowledge is above data and information, few academics or business leaders agree on the exact meaning of knowledge (Butler, 2003; Hlupic, et al., 2002). The meaning of knowledge thus depends on the users' perspective. Information represents a flow of messages but knowledge is created and organized from it, anchored by the commitments and beliefs of concerned individuals (Davis, Subrahmanian, & Westerberg, 2005). Knowledge is meaning of the mind and without meaning, knowledge is information or data (Bhatt, 2001). Knowledge, therefore, is context dependent (Bhatt, 2001). It is apparent that no definition of knowledge encompasses all disciplines, professional levels, and organizations; almost every discipline has its own definition of knowledge (Bhatt, 2001; Von Krogh, Nonaka, &Aben, 2001). However, two common characteristics of knowledge can be drawn from these definitions. First, knowledge is humanistic because it is essentially related to human action; knowledge is a dynamic human process of

justifying personal beliefs toward the truth (Nonaka&Takeuchi, 1995). This perspective acknowledges the importance of subjective factors such as beliefs and their link to actions, as well as the relatively tacit dimension of knowledge. Second, knowledge is context specific as it depends on a particular time and space. Without context it is information, not knowledge. In other words, it is contended that knowledge does not exist independently of human experience; instead, it develops through social creation of meanings and concepts (Sabherwal& Becerra-Fernandez, 2003). The subjective and context-sensitive nature of knowledge implies that its categories and meanings depend on individual perceptions.

(Davenport &Prusak, 1998). For the purpose of this study, the adopted definition of knowledge is given by Probst and his colleagues (2000, p. 24):

"Knowledge is the whole body of cognitions and skills which individuals use to solve problems. It includes both theories and practical, everyday rules and instructions for action. Knowledge is based on data and information, but unlike these, it is always bound to person. It is constructed by individuals, and represents their beliefs about causal relationships".

Such a definition has been adopted as it more or less embraces the definition of knowledge given by various scholars (Beckman, 1999; Bhatt, 2001; Davenport &Prusak, 1998; Nonaka& Takeuchi, 1995; Wiig, 1999). Hence it represents a commonly accepted term in the field of knowledge. Based on this definition, the searcher Forward that new knowledge always begins with the individuals, and that an individual's personal knowledge is transformed into organizational knowledge valuable to the company as a whole.

2.3 Organizational Knowledge

Although there has been significant debate in the literature regarding the question of whether organizations can learn, the concept of organization level knowledge has received limited attention. There are two main exceptions:

First structural theories of organization behavior (behavioral view of organizational learning), which recognize a systemic level of knowledge that is embedded in organization routines, and,

Second the strategic management perspective which similarly emphasizes the embedded core competencies that determine an organization's capability.

Structural theories of organizational behavior "propose that if the right conditions are put in place, the desired behaviors are more likely to occur" (Edmondson &Moingeon, 1996: 29). This perspective asserts that organizational routines, which include rules, beliefs and frameworks, determine how the organization is designed. They also guide behavior and are stored in the collective memory (Brown &Duguid, 1998; Levitt &March, 1996; Schein, 1993; Deal & Kennedy, 1982). This collective memory is believed to endure even after individual members leave the organization

"Individuals come and go but organizations preserve knowledge, behaviors, mental maps norms, and values over time" (Hedberg, 1981: 6).

Within this perspective there are diverse views on the process by which organizational memory is created, although an area where there is consistency in the tendency to focus on processes related to 'learning how' which are seen as vital for organizational effectiveness (Edmondson &Moingeon, 1996). Some theorists believe that this is generated by individual members (e.g. Simon, 1996; March & Olsen, 1976), while others emphasize the role of groups or 'communities-of-practice' with shared interests, 'know-how, and a commonality of purpose (Brown &Duguid, 1996, 1998; Cook &Brown, 1999) or both (Doz, 1996; Inkpen, 1996, 1998; Crossan, Lane & White, 1999).

Beyond these fundamental concepts, there are however debates regarding the nature of tacit and explicit knowledge and the process by which organizational knowledge is generated. Some theorists suggest that the challenge in organizational knowledge creation is making the tacit knowledge of individuals, and to some extent groups, explicit so that it can be shared and over time embedded in routines. Hence, understanding this process of transformation and the mechanisms that support and enable it becomes central to related views on knowledge creation (e.g. Nonaka& Takeuchi, 1995; Zollo& Winter, 2001) .

There are, however, some scholars who suggest that in fact tacit and explicit knowledge are separate and distinct and it is therefore not possible to transform one into the other. They suggest that both tacit and explicit knowledge are created through a process of dynamic interaction with the outside world that is fluid and non-mechanistic (e.g. Cook & Brown, 1999).

2.4 Definition of Knowledge Management

Knowledge management is now widely recognized as a competitive advantage, and an increasing number of organizations are incorporating the knowledge management strategy (Davenport &Volpel, 2001). Many firms have reached the conclusion that effective knowledge management is the only way to lever their core competencies and achieve competitive advantage (Arora, 2002; Bhatt, 2001; Demarest, 1997; Hlupic, et al., 2002). Thus, organizations are interested in knowledge management to boost the efficiency of their organization, increase productivity and quality of their services, and achieve innovative solutions and products for their customers. Managers are concerned with developing knowledge management strategies for cultivating the knowledge of people associated with the organizations. Within the research community, however, knowledge management is considered as a catalyst for understanding the role of knowledge in an organization (Moffett, et al., 2003a). The meaning of the term knowledge management, therefore, has been debated, defined and redefined repeatedly. Knowledge management is often viewed as multidimensional and multidisciplinary, which may sometimes lead to a fragmented dialogue on the topic. According to Tiwana (2000), knowledge management, in the simplest terms, means "management of knowledge". It can be extended to management of organizational knowledge for creating business value and generating competitive advantage. "Knowledge management enables the creation, communication, and application of knowledge of all kinds to achieve business goals" (Tiwana, 2000, p. 5). Wiig (1999), the likely founder of knowledge management, defined it as "the systematic and explicit management of knowledge-related activities, practices, programs, and policies within the enterprie" (p. 3). Quintas, Lefrere, and Jones (1997) hold that knowledge management is "the process of continually managing knowledge of all kinds to meet existing and emerging needs, to identify and

exploit existing and acquired knowledge assets and to develop new opportunities" (p. 387). Martinez (1998) considers knowledge management as encouraging individuals to communicate their knowledge by creating environments and systems for capturing, organizing, and sharing knowledge throughout the company. Various other definitions abound in the literature (Al-Ghassani, Kamara, Anumba, & Carrillo, 2004; Bassi, 1997; Beijerse, 1999; Bhatt, 2001; Darroch, 2003; Davenport &Prusak, 1998; C. Davidson & Voss, 2002; Demarest, 1997; Horwitch&Armacost, 2002; Jones, 2006; Koch, 2003; O'Dell,et al., 1998) as shown in Table 2-2.

Source	Definition
O'Dell et al.,1998	Knowledge management is a conscious strategy of getting the right knowledge to the right people at the right time and helping people share and put information into action in ways that strive to improve organizational performance.
Quintas,Lefrere, & Jones, 1997	Knowledge management is the process of continually managing knowledge of all kinds to meet existing and emerging needs, to identify and exploit existing and acquired knowledge assets and to develop new opportunities.
Bhatt, 2001	Knowledge is process of knowledge creation, validation, presentation, distribution and application
Blake, 1998	Knowledge management is the process of capturing a company's collective expertise wherever it resides, and distributing it wherever it can help produce the biggest payoff.
Martinez, 1998	Knowledge management is about encouraging individuals to communicate their knowledge by creating environments and systems

	for capturing, organizing and sharing knowledge throughout the company.
Horwitch&Armacost , 2002	Knowledge management is the practice of creating, capturing, transferring and accessing the right knowledge and information when needed, to make better decisions, take actions, and delivery results in support of underlying business strategies.
Jones, 2006	Knowledge management is a process of acquiring knowledge from the organization or other sources and turning it into explicit information that employees can use to transform into their own knowledge, allowing them to create and increase organizational knowledge.
Beijerse, 1999	Knowledge management is achieving organizational goals through strategy-driven motivation and the facilitation of knowledge workers to develop, enhance and use their capability to interpret data and information (by using available sources of information, experience, skills, culture, characters, personality, feeling, etc.)Through a process of giving meaning to these data and information.
Wiig, 1999	Knowledge management is the systematic and explicit management of knowledge-related activities, practices, programs, and policies within the enterprise.
Rastogi, 2000	Knowledge management is a systematic and integrative process of co-coordinating organization-wide activities of acquiring, creating, storing, diffusing, developing and deploying knowledge by individuals and groups in pursuit of major organizational goals

Table 2.2: Definition of Knowledge Management

It is evident that the wide range of definitions reflects that people who work in the field of knowledge management come from a wide range of disciplines, such as management science, organizational science, production engineering, and so on (McAdam&McCreedy, 1999). For example, management information systems researchers and practitioners tend to define knowledge as an object that can be recognized and controlled in a computer-based information system (Bassi, 1997; Bennett & Gabriel, 1999; Fowler, 2000; Ruggles, 1998); management theory researchers, on the other hand, address knowledge as being processes their benchmarking study. The key point here, however, is that numerous approaches to KM, with various emphases, are developing, and that each of them is valid in its own context.

In general, defining the concept of KM is difficult, as definitions usually depend upon the researchers, their experience, background, and interest. Different perspectives of KM can yield different dimensions and meaning (Lopez, &Ordas, 2004). However (Rastogi, 2000) definition applied for this study due to KM align with organizational goal.

In an attempt to move the research forward, and after a thorough review of the literature, this study suggests that KM can be understood as a formalized and active approach to manage and optimize knowledge resources in an organization (Wong &Aspinwall, 2006), and that the goal of knowledge management is to effectively apply an organization's knowledge to create new knowledge in order to achieve and maintain competitive advantage (Mason &Pauleen, 2003). Thus, a successful KM system is one that includes knowledge community, where people can interact in the discovery, use, and manipulation of knowledge (Thomas, et al., 2001). Fundamental to the notion of community in KM is the understanding that community involves identifying the social practices and relationships that are operating in a particular context. In addition, organizations vary by the nature of their knowledge ownership and their vehicle of accumulation. Despite being incapable of creating knowledge without individuals, organizations support creative individuals or provide a context for such individuals to create knowledge; social interactions between individuals, groups, and organizations are fundamental to

organizational knowledge creation (Nonaka, 1994). The organizational culture and structure, therefore, play a major role in the individual's propensity to create the knowledge and then share it with others in the literature (Demaid&Quintas, 2006; Du Plessis, 2006; Egbu, 2004; Goodale, 2001; Merx-Chermin&Nijhof, 2005; Nonaka, 1994; Politis, 2001). This approach to KM, relying predominantly on culture and structure, is known as the personalization strategy (Hansen, et al., 2005).

2.5 Knowledge Management Processes

The literature shows that a number of studies have addressed the knowledge management process. Some examples include: Demarest's (1997) process model of knowledge construction, dissemination, use, and embodiment; Darroch's (2003) three-stage model of knowledge acquisition, knowledge dissemination, and the use or responsiveness to knowledge; and Bhatt's (2001) five processes, knowledge creation, validation, presentation, distribution, and application. These processes, while often concurrent, are not always in a linear sequence (Beckman, 1999; Lee & Choi, 2003). Furthermore, as previously described, this study views knowledge as being subjective rather than objective. This perspective contends that knowledge does not exist independent of human experience; instead, it develops through the social creation of meanings and concepts; therefore, losing a universal objective character (Von Krogh &Roos, 1995). The organization, hence, serves as a knowledge-integrating institution, incorporating the knowledge of many different individuals and groups in the process of producing goods and services (Holtshouse, 1998; Kogut& Zander, 1997; Soo, Devinney, Midgley, &Deering, 2002). Knowledge integration may occur in organizations through organizational routines, directions, or processes involving the sharing of explicit or tacit knowledge (Nonaka& Takeuchi, 1995; Zack, 2003). The focus of this study is on the last aspect, that knowledge management processes facilitate the sharing of explicit or tacit knowledge in organizations.

Explicit knowledge can be shared through various communications media, which is not possible in the case of tacit knowledge. Tacit knowledge is highly personal, hard to formalize, and difficult to communicate or share with others (Nonaka& Takeuchi, 1995). It can sometimes be communicated through the establishment of shared understanding

between individuals (Takeuchi, 2001; Takeuchi &Nonaka, 2004). In some circumstances, tacit knowledge needs to be converted into an explicit form. By illustrating the movement between these two types of knowledge, Nonaka and Takeuchi (1995) argue that organizational knowledge management can be understood as a process of making tacit knowledge explicit. To explore the knowledge management processes, this study draws upon Nonaka's (1994) four knowledge management processes: internalization, externalization, socialization, and combination. This model views organizational knowledge management as involving a continual interplay between the tacit and explicit dimension of knowledge and a growing spiral flow as knowledge moves through individuals, groups, and organizational levels. Socialization According to Nonaka (1994), socialization mode refers to the conversion of tacit knowledge into new tacit knowledge through social interaction and shared experience among organizational members. It helps exchange knowledge through joint activities, such as being together, spending time, living in the same environment, rather than through written or verbal instructions (Nonaka, 1994; Nonaka& Konno, 1998). Knowledge is produced in a group setting, not only through the mere acquisition of individuals, but also through the sharing of common understanding, which helps synergies the individual knowledge (Fiol, 1994). Individuals may learn and gain the sense of competence by observing behaviors modeled by others in the organizations. In practice, socialization typically occurs in a traditional apprenticeship, where apprentices learn the tacit knowledge needed in their craft through hands on experience, rather than from written manuals or textbooks. Socialization may also occur in informal meetings outside of the workplace, where tacit knowledge such as world views, mental models, and mutual trust, can be created and shared; socialization also occurs beyond organizational boundaries, as firms may acquire and take advantage of the tacit knowledge embedded in customers or suppliers when interacting with them. Thus, socialization involves capturing and disseminating knowledge (Nonaka& Konno, 1998). Externalization in KM, externalization is the process of articulating tacit knowledge into explicit knowledge. Externalization requires the expression of tacit knowledge and its translation into comprehensive forms that can be understood by others (Nonaka, 1994).

In practice, externalization is supported by two key factors. First, the articulation of tacit knowledge that is, the conversion of tacit into explicit knowledge involves techniques that help to express one's ideas or images as words, concepts, visuals, or figurative languages. Dialogue, "listening and contributing to the benefits of all participants", strongly supports externalization (Nonaka& Takeuchi, 1995). The second factor involves translating the tacit knowledge of experts into readily understandable forms. This may require deductive/inductive reasoning or creative inference (Nonaka, 1994; Nonaka& Konno, 1998; Nonaka& Takeuchi, 1995). Combination Combination is the process of converting explicit knowledge into more complex and systematic sets of explicit knowledge (Nonaka, 1994). Explicit knowledge is collected from outside or inside an organization; it is then combined, edited, and processed to form new knowledge. With a focus on communication, diffusion, integration, and systemization of knowledge, combination contributes to knowledge at the group level as well as at the organizational level (Nonaka& Takeuchi, 1995). While combination helps integrate knowledge of group members, the new knowledge generated through combination often transcends the group (Nonaka& Konno, 1998). Thus innovative organizations seek to develop new concepts; these are created, justified, and modeled at the organizational, and sometimes inter-organizational, level. Moreover, complex organizational processes require the cooperation of various groups within the organization; combination supports these processes by aggregating the technologies and knowledge (Nonaka, 1994). Internalization. Internalization is the process of converting explicit knowledge into the organization's tacit knowledge. This requires the individual to identify the knowledge relevant to one's self within the organization's explicit knowledge. In the internalization process, the explicit knowledge has to be embodied in action and practice so that the individuals acquiring the knowledge can re-experience what others go through. Thus the process of internalizing explicit knowledge actualities concepts or methods about strategy, tactics, innovation, or improvement (Nonaka& Konno, 1998). Alternatively, individuals could acquire tacit knowledge in virtual situations, either vicariously by reading or listening to the stories of others, or experientially through simulations or experiments. Learning-by-doing, training by observation, face-to-face meetings, and exercises are some of the internalization processes through which individuals can access

the knowledge realm of the group and the entire organization, thus acquiring knowledge (Nonaka, 1994; Nonaka& Konno, 1998). These four knowledge management modes (socialization, externalization, combination, and internalization) are not pure, they are highly interdependent and intertwined (Alavi&Leidner, 2001); that is, each mode relies on, contributes to, and benefits from the other modes. For example, socialization can result in the creation of knowledge when an individual obtains a new insight triggered by an interaction with another. On the other hand, the socialization mode may involve transferring existing tacit knowledge from one member to another through the discussion of ideas. New organizational knowledge may not be created, but may be new knowledge to the recipient. The combination mode in most cases involves an intermediate step, that of an individual drawing insight from explicit source (i.e. internalization) and then coding the new knowledge into an explicit form (externalization). Finally, internalization may consist of the simple conversion of existing explicit knowledge to an individual's tacit knowledge, as well as the creation of new organizational knowledge when the explicit source triggers a new insight.

2.6 CurrentIssues and Challenges in Knowledge Management

2.6.1 Factorsthat mostly influencing knowledge management in Organization

As cited in (Evans, 2003), Peter Drucker is credited for having said that in contemporary society the most important source of wealth is knowledge and information. Knowledge Management can be used to create business value, generate competitive advantage, achieve business goals, and develop greater value from the core competencies of the business (Tiwana, 2001). Hasanali stated that the success of the implementation of knowledge management depends on many factors, for example, leadership, culture, structure, roles and responsibilities, information technology infrastructures, and measurement.

2.6.1.1 Issues in Knowledge Management

- organizational Cultural Issue

According Suresh and (Egbu, 2004) organizational culture is an important factor to consider in the context of KM, as its boundaries may often restrict the flow of information and knowledge among employees. (Gupta and Govindarajan, 2000) described a social environment as a social system, or organizational culture, in which people operate.

- Technological Issues

Technology can make the exchange of knowledge become faster, easier, and smoothly.

- Leadership Issue

Asoh et al., 2002 concluded that the success of any organization depends on leadership and the success of any leader depends on his/her assigned roles and how the roles are performed. (Suresh and Egbu, 2004) stated that in making knowledge available and usable across the whole organization, the critical questions are: Who should know what, to what level of detail, and how can the organization support these processes of knowledge sharing? This is because not everyone needs to know everything. This concept rise the question of how level the leadership is in the organization.

- Security, Privacy and Standards Issues

Suresh and Egbu, 2004 argued that, identifying and locating experts, knowing what organizations and individuals know, and knowledge sharing have significant security and privacy implications. Standards play a significant role which is includes agent communication, meta-data representation, business integration, interoperability, multi-channel and cross-channel success, portals, and advanced collaboration (Satyadas and Harigopal, 2001).

2.6.1.2 Challenge in Knowledge Management

- Management Challenge:

Management involves having the right leader doing the right activities to provide the thorough analysis of the status quo and the appropriate changes that will improve the system and yield good results (Stukalina, 2006).

- Economic Challenge

Information and knowledge products seem to be governed by a different law of economic return: investment in every additional unit of information or knowledge created and utilized could result in progressively higher returns (Suresh and Egbu 2004).

- Implementation Challenge

According to Bygstad (2008), Kwon and Zmud argued that Implementation is mostly seen as an acceptance. The spread of the knowledge-based, less hierarchical organizations with both more powerful and knowledgeable user has accelerated this development.

- Culture

According RosmainiTasmin and Woods (2007), knowledge culture constitutes of the accumulation and combination of common expectation, tacit rules, shares experiences and social norms that shape our attitudes and behaviors. Successful organizations empower employees to want to share and contribute intellectual information, by rewarding them for such actions (Mathi, 2004).

- Organizational Structure:

Gold et al. (2001) argue that a team-based, non-hierarchical, self-organizing organizational structure is the most effective for knowledge sharing. Claver-Cortés et al. (2007) indicated that the important role of the flexible organizational structures on successful KM implementation. They further suggest that flexible structures help achieve decentralization of decision-making process by facilitating the communication process at all organizational levels. In the same vein, Al-Alawi, Marzooqi& Mohammed (2007) emphasized that organizational structure characterized by participative decision making, ease of information flow and cross-functional teams contribute positively to support

knowledge sharing. Wang and Ahmed (2003) believe that for the structure of knowledge-based organizations it must be created in higher levels of structural dimensions. This level includes trust-based relationship, externally-oriented interactive relationship, and emotionally-inclusive relationship.

- Human Resource:

The efficiency of KM depends on institutional capacity and trained human resource that can disseminate knowledge quickly. As Nair (2005) put it Governments need to continually learn in order to remain relevant to the constituents they serve. In order to gain competitive advantage from KM, organizations need to identify core competencies, or integrated knowledge sets, that distinguish them from competitors and add value for customers (Bohlander, Snell and Sherman, 2001).Employees create knowledge within the organization and a significant part of the organizational knowledge is saved in their minds, thus small mutation in their task positions can impose a fundamental effect on its total performance (UN, 2003).A research carried out by Mosoti and Masheka (2010) on Knowledge Management in Kenya (Nairobi) revealed that Knowledge Management practices though practiced is not well understood by most organizations within Nairobi. The findings indicated that most of the challenges faced by organizations in Nairobi are how to create and implement KM Practices as part of organizational culture, organizational strategy and organizational leadership. Though most organizations confirmed that they use IT, it was noted that there is need for a synergy with other enablers ‘of KM such as organizational culture, organizational strategy and organizational leadership.

Generally: As Shown in the Figure 2.1 categorize Factors that mostly influencing knowledge management in Organization.

E: Environmental Influences

M: Managerial Influences

R: Resource Influences

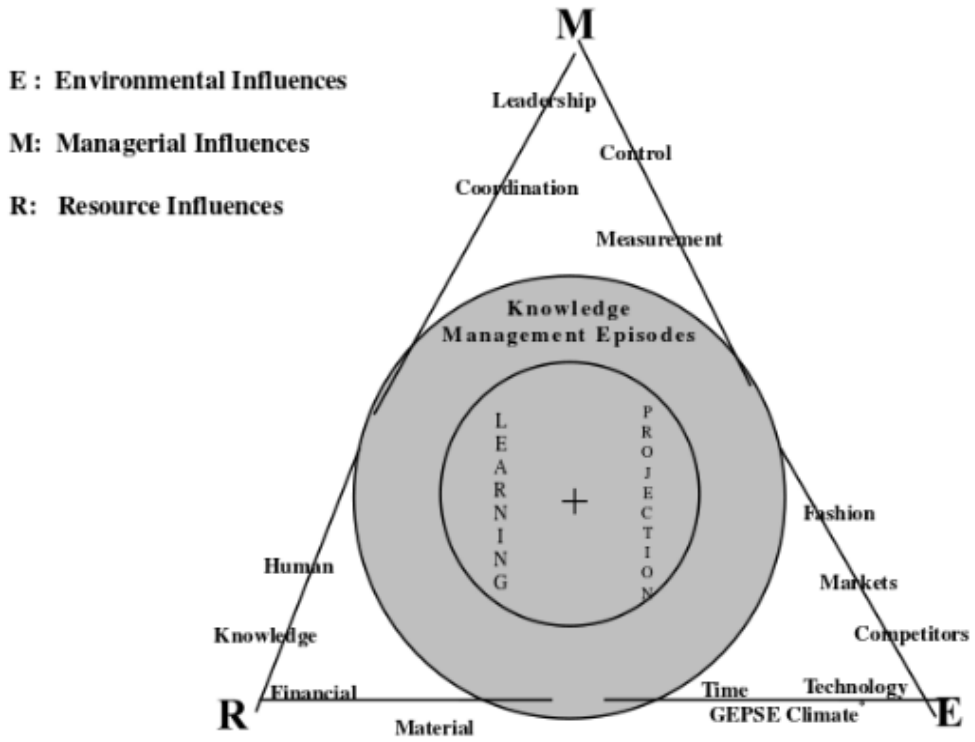

Figure 2.1: Factors that mostly influencing knowledge management in Organization.

2.6.1.3 Knowledge management Readiness

The evaluation and development of readiness for implementation of the KMS, which includes both soft aspects of process and culture, and hard aspects of technology and software systems, are recommended to increase the success rates. Assessing readiness is a systematic analysis of an organization's ability to undertake a transformational process or change. A readiness assessment identifies the potential challenges that might arise when implementing new procedures, structures, and processes within a current organizational context. Furthermore, through the identification of the gaps within the existing organization, the readiness assessment affords the opportunity to remedy these gaps either before, or as part of, the implementation plan. Organizational readiness for KM implementation guarantees the organizational readiness to accept the philosophy of knowledge life cycle as a critical way of life. Siemieniuch, C. E., & Sinclair, M. A. (2004). As a result, organizational readiness for knowledge management (KM) has been

studied comprehensively from diverse viewpoints lately. KM enablers such as organizational culture, organizational structure and information technology infrastructures, and organizational members' perception towards KM are assumed to be the predictors of KM readiness. Nevertheless, those dimensions could be part of KM readiness rather than just merely being its predictors considering the inevitable nature of those variables for KM implementation.

There is no one exact definition to be used wherever the term e-readiness appears; there have been more than one attempt to define what is meant by e-readiness. The definition provided by the United Nations University is: "e-readiness measures how well a society is positioned to utilize the opportunities provided by information and communication technology (ICT). ICT infrastructure, human capital, regulations, policies and Internet penetration are all crucial components of e-readiness." (AdegboyegaOjo, Tomasz Janowski and Elsa Estevez, 2007, p. 1) The APEC e-commerce Readiness Assessment Guide provides another definition from a somewhat different perspective: "Readiness is the degree to which an economy or community prepared to participate in the digital economy" (APEC, 2000, p. 2) A third definition is offered by Rahman: "e-readiness refers to a country's ability to take advantage of the Internet as an engine of economic growth and human development." (Rahman, 2007, p1) This review determines how well the organization is positioned to adopt KM. In order to develop a sense of direction, the readiness assessment outcome should give an indication on how organization needs to adapt when the KM initiative is rolled out

Based on the literature review, the word "readiness" is used as the requisite for people or organization to successfully change. Holt, Daniel (2000). Research on organizational readiness for KM helps organizations to assess their readiness for knowledge sharing before the KM implementation. Siemieniuch, C. E., & Sinclair, M. A. (2004). According to previous studies, organizational readiness includes different cultural, structural, and technological aspects, such as individuals, the context, content and process of change, the tendency to knowledge management, confidence, and culture. Choi, Byounggu.,& Lee, Heesseok (2002).

2.7 Criticalsuccess Factor for Knowledge Management Implementation

Knowledge Management is a driving force of critical importance for business success or failure. Knowledge management is a new but complex process with many factors influencing its implementation. These factors, also known as knowledge management enablers, should be clear in an organization, because not only they create knowledge but they also prompt people to share their knowledge and experiences with others (Yeh, Lai, & Ho, 2006). Nowadays the great objective of many organizations is to identify a suitable knowledge management system and manage their knowledge successfully. A broad range of success factors for a knowledge management implementation have been identified in the literature. One of the earliest studies of knowledge management critical factors was presented by Skyrme and Amidon in 1997. They highlighted seven key success factors, including a strong link to business imperative, a compelling vision and architecture, knowledge leadership, knowledge creating and sharing culture, continuous learning, a well-developed technology infrastructure and systematic organizational knowledge processes (Wong &Aspinwall, 2005). Davenport et al. (1998) conducted a study to explore the practices of 31 knowledge management projects in 24 companies, with the aim of determining the factors associated with the effectiveness. The result identified 18 successful projects with eight success factors. These factors were linking knowledge management to economic performance or industry value, a clear purpose and language, a standard and flexible knowledge structure, multiple channels for knowledge transfer, culture, technical and organizational infrastructure, change in motivational practices, and senior management support (Wong, 2005). In addition, at the same year Ruggles pointed out that factors such as people, process and technology should be taken under consideration in knowledge management implementation, focusing mainly in people and then following process and technology. Arthur Anderson Business Consulting (1999) believed that people, corporate culture and information technology are the biggest enablers of knowledge management implementation. According to this research knowledge management enablers are the key factors that determine the effectiveness of knowledge management within an organization. Similarly, Liebowitz (1999) proposed

six key ingredients for making knowledge management successful in organizations. He pointed the need for knowledge management strategy with support of senior management, a chief knowledge officer (CKO) or equivalent and a knowledge management infrastructure, knowledge ontologies and repositories, knowledge management systems and tools, incentives to encourage knowledge sharing and supportive culture. His propositions were implemented by the first adopters of knowledge management. A different approach was carried out by Holsapple and Joshi (2000).

Firstly, they investigate the factors, which derived from various literature sources, and probably influence the success of knowledge management. Secondly, they conducted a Delphi study in order to assess the appropriateness for the factors they evaluated and explored earlier. They suggest three types of influences, managerial, resource, and environmental, containing different factors each one. Hasanali in 2002 claimed that the success of knowledge management depends on many different factors. His success factors are leadership, culture, structure, roles and responsibilities, IT infrastructure, and measurement. Likewise, Chourides et al. (2003) highlighted five categories of factors namely, strategy, human resource management (HRM), information technology, quality, and marketing (Wong, 2005). Also another empirical study conducted by Davenport and Probst (2002) suggested a more extensive list of success factors for the implementation of knowledge management. This list included leadership, performance measurement, organizational policy, knowledge sharing and acquisition, information-systems structure, and benchmarking and training. Bixler (2002) created a four pillar model to show the importance of different factors for ensuring successful implementation of knowledge management initiatives. The four pillars were leadership, organization, technology and learning (Mathi, 2004). In addition Stankosky and Baldanza (2000) developed a conceptual framework for knowledge management in which the four pillars were organization, technology, leadership, and learning. Moreover, Mathi (2004) proposed that the factors which determine knowledge management success in an organization are culture, knowledge management organization, systems and information technology infrastructure, effective and systematic processes and measures (Akhavan, Jafari, &Fathian, 2006).

Moreover, another knowledge management model that could be mentioned is the one developed by Arthur Anderson and the American Productivity and Quality Center (1996, 1999, and 2000). In this model four catalytic factors are emphasized for successful knowledge management: Leadership, organizational culture, measurement and technology. It is important each factor to be designed and managed in alliance with the others for the support of the knowledge management process.

Author	Year	Enablers
Stankosky&Baldanza	2000	Organization, technology, leadership, and learning.
Holsapple&Joshi	2000	Culture, leadership, technology, organizational adjustments, employee motivation, external factors
Andrew et al.	2001	Information Technology, organizational structure, corporate culture, knowledge obtainers, knowledge, transfer, knowledge application, and knowledge protection.
Chourides et al.	2002	Strategy, human resource management (HRM), IT, quality and marketing
Hasanli	2002	Leadership, organizational culture, structure, roles and responsibilities, IT infrastructure, and measurement
Davenport & Probst	2002	Leadership, performance measurement, organizational policy, knowledge sharing and acquisition, information-systems structure, benchmarking and training
Bixler	2002	Leadership, organization technology, and learning
Laupase	2003	organizational structure, culture and information technology
Moffett et al.	2003	IT infrastructure, Performance measurement, Knowledge structure, Job enrichment, Team working and communities of practice (CoP)
Mathi& Holt et al	2004	Culture, KM organization, systems and IT infrastructure, effective and systematic processes and measures & People Context Content, Process Measurement KM Approach.
Egbu	2004	infrastructure, Strategy, Knowledge metrics, Collaboration and communication, Integration of KM and current systems,

		Job Security
Olfman	2005	Organizational culture, Information Technology
Ngok	2005	organizational communication system, communal culture, transformational leadership and information technology
wong	2005	Organizational infrastructure, Strategy, Employees training and education
Akhavan et al.	2006	Knowledge sharing, leadership, Organizational infrastructure, Employee's involvement & understanding
Jafari	2006	Employee's involvement and understanding awareness, Benchmarking, Change management, strategy, Continuous learning
Akhavan, Jafari, and Fathian	2006	Organizational culture, IT Infrastructure, effective and systematic process and measures
Plessis	2007	Organizational Strategy, Human Resource Management, and Information Technology
Fong and Kwok	2009	Knowledge sharing and Trust, Organizational culture
Ajmal et al	2010	IT infrastructure, leadership, Trust and organizational culture, Systematic approach to KM

Table 2.3: Summary of knowledge management enablers

2.8 Knowledge management practices in financial services

Financial managers , Banking leaders , are developing strategies to remain competitive in the new, global knowledge-based economy, institutions in the public, private or non-profit sectors, have come to realize the role which "knowledge" can play in enhancing the effectiveness of their operations. In addition to investments in human resources and leveraging the role information technology, they have begun to devote considerable attention to harnessing the explicit and tacit knowledge they possess.

Shockingly, despite the now-solid consensus on the importance of knowledge or "intellectual capital" to every company's success, most companies actually manage

knowledge very badly. Very few have clearly defined management roles, such as a Chief Knowledge Officer (CKO), or organizational structures for the management of knowledge as a resource. Few even have a shared knowledge language that allows efficient communication. However, attention to knowledge management is growing. Companies are recognizing that they compete in increasingly knowledge-intensive markets. To thrive—and even to survive—they are forced to rethink the management of their organizational knowledge bases.

According to (Sarrafzadeh, Martin and Hazeri, 2006) KM practices are defined as the way ideas are translated into action and in the process accomplishing specific goals. KM practices include the understanding of KM, and knowledge generation, acquisition, organization, storage, transfer, sharing and retention (Branin, 2003; and Singh, 2007) argues that information professionals need to develop the capabilities to survive in knowledge based society, but on the other hand organizations are envisaged to increase investment and put more effort in ensuring that information and knowledge available in databases, patents, trade secrets or tacit knowledge that is fully utilized and transferred into products and services that give value to the organization.

In practice, knowledge management practice often encompasses identifying and mapping intellectual assets within the organization, generating new knowledge for competitive advantage within the organization, making vast amounts of corporate information accessible, sharing of best practices, and technology that enables all of the above — including groupware and intranets and translated that into action. Like:

Knowledge initiative action taken by the case study in World Bank practice includes the below listed attributes:

- The Bank Initially identified 80 domains of expertise and built global "communities of practice" from informal communities around each domain to share information and build knowledge
- Each community was charged with establishing a help desk, creating an expert directory, gathering relevant project history including best practices

and lessons learned, and setting up electronic bulletin boards with the help of a full-time knowledge manager and operational staff

- Dedicated knowledge management staff oversaw the development and establishment of an enterprise-wide integrated knowledge management framework and classification system
- The Bank shifted to a knowledge sharing culture by adding knowledge sharing to the personnel evaluation system and sponsoring a Knowledge Fair and Knowledge Sharing Awards
- Over 4% of the Bank's annual administrative budget is allocated to developing the knowledge management system and communities of practice

2.8.1 Knowledge management practice in the context of Commercial Bank of Ethiopia

The bank already developing and implementing a banking documental procedure with in branch and Head Office organs so that all employees are expecting to perform the duties in line with the procedure.

It is known that the bank hiring selected fresh graduate employees with no experience on a yearly base. Hence those new comers have exposed to different option to gain the knowledge. Firstly: they are conducting a training, usually by the internal senior expert how has long experience, at the Training center of excellence which is prepared by Human Resource Development Department. Secondly: Immediately after completing the session they have on job training at their respected assigned area so that senior able to share the knowledge easily. Thirdly: There is a job rotational practice that favor the new employee to attend at the duties in each banking occupational area hereafter the expert share and the new comer gain the expected knowledge. This accustomed practice make the company to let the employee to share and exchange their knowledge.

The senior employees are got specialized training by the external professional (internally and Abroad) which is again prepared by Human Resource Development Department. Not

only the senior and newer are got the knowledge this way rather there are different option that the employee can share their knowledge like the organization prepared social community, Entertainment to let them share their experience, internal social media, occasional events are mostly practicing.

likewise New issue that came across in the daily working activity that has not been addressed by the working procedure are subjected to the concerned organ, then after, a committee held a meeting to resolve the issue and develop a work around so that new knowledge has been created and included on the earlier procedure. Hence the procedure being updated based on the committee conciseness. This new gained knowledge/ procedure circularized to those concerned workforce who are subjected to the issue so that the new knowledge equally shared among the staff. This is somehow the organization acquiring and develop corporate memories.

2.9 Knowledge management e readiness Assessment Framework

The purpose of the Knowledge Management process is to share perspectives, ideas, experience and information; to ensure that these are available in the right place at the right time to enable informed decisions; and to improve efficiency by reducing the need to rediscover knowledge. (University of Alaska, Pink Elephant Inc. 2012 Page 46)

The objectives of Knowledge Management are to:

- Improve the quality of management decision-making by ensuring that reliable and secure knowledge, information and data is available through the service lifecycle
- Enable the service provider to be more efficient and improve quality of service, increase satisfaction and reduce the cost of service by reducing the need to rediscover knowledge
- Ensure that staff have a clear and common understanding of the value that their services provide to customers and the ways in which benefits are realized from the use of those services

- Maintain a Service Knowledge Management System (SKMS) that provides controlled access to knowledge, information and data that is appropriate for each audience
- Gather, analyze, store, share, use and maintain knowledge, information and data throughout the service provider organization. (Pink Elephant Inc., 2012)

However, many organizations failed in implementing knowledge management system. A primary reason for this failure is the lack of organizational preparedness assessment in terms of technology. To reduce failure risk, organizations should assess their e readiness for adopting knowledge management implementation to identify some weak points which have to be improved by taking some improvement actions (International journal of advanced corporate learning (iJAC,2012). Hence the evaluation process should be identified at the beginning of the project to avoid potential risks in latter stages. Thus, it would be necessary to assess and analyze the preparedness of an organization in all angle before initiating the project. Without proper e readiness assessment, the project probably fails or faces intensive challenges.

There is no agreement in the literature on what constitutes of readiness. It has different meaning to different writers, but one commonly used approach to readiness is the assessment of certain organizational, Individual and environmental factors that should be considered if organizations are likely to be successful with the introduction knowledge management implementation.

Commercial Bank of Ethiopia also lack the expertise to handle its knowledge assets especially those gained from long experience indeed, most knowledge-management initiatives in commercial Bank have failed for a variety of reasons (including technological, cultural, knowledge content, and project management reasons) (Chua and Lam, 2005).

This study assess how well commercial bank of ethiopia is positioned and eready to adopt knowledge management system. In order to develop a sense of direction, the e readiness assessment outcome should give an indication on how the bank needs to adapt when the KM initiative is rolled out. In addition it hints on the banks current status and what

condition need to be incorporate in preparedness assessment before implementing Knowledge management system.

No.	E-Readiness Models	E-Readiness Factors
1	Bakry's STOPE model, 2007	Strategy Technology Environment Organization People
2	Fetaji and Majlinda Fetaji's Model, 2009	Learners' education and cultural background, Learners' Computing skills, Learners' learning preferences, The quality of e-learning content, Viable learning environment and its e-learning logistics, Learners' motivation, Students' attitudes toward technology
3	Chapnick's Model, 2000	Psychological Sociological Environmental Human resources , Financial readiness Technological skill (aptitude) Equipment, Content readiness
4	Li-An Ho's model, 2009	E-learning system quality

		Technology readiness Learning behaviour ,Learning outcome
5	Haney's Model, 2002	Human resources Learning management system Learners ,Content Information technology Finance ,Vendor
6	Chai Lee et al's Model, 2009	Organizational factors General factors , Cognitive factors
7	Rodgers's Diffusion Model, 2005	Relative advantage ,Compatibility Image , Visibility , Ease of use Results demonstrability, Trainability
8	Engholm's model, 2001	Organization's culture Individual learner ,Technology, Content Organizational and industry factors

Numerous existing e readiness assessment in the literature vary in terms of objectives, methodologies and results. This is to say that there is no assessment model that likely to cover all pillars of valuation. Hence, the Readiness assessment pillars cover one or more of the following topics as reviewed in there journal of knowledge management by (Mina Ajmal, Petri Helo and TaunoKeka, 2010) as shown in Table: 2.4.

Table: 2.4Organizational assessment frame work for E-Readiness

2.10 Related literature on KM e- readiness

The development of readiness for implementation of the knowledge management system includes both soft aspects of process and culture, and hard aspects of technology and software systems, are recommended to increase the success rate of implementation. Organizational e readiness for knowledge management implementation guarantees the organizational preparedness to accept the philosophy of knowledge life cycle as a critical way of competitive advantage (Chung, 2005). Assessing knowledge management readiness provides thorough answers to two fundamental questions: What is a firm's current KM capability? And what changes must be in place before embarking on a knowledge management initiative? An instrument to assess readiness should be developed based on the premise that knowledge management is enhanced through the critical success factors (CSFs). Before investing scarce resources in such risky projects, corporate leadership is calling for a means to decrease uncertainty surrounding knowledge management readiness (Mohammadi, 2010).

A case study in assessing organizational readiness for knowledge management system implementation by (rooholahrafieyzadeh and seyyedaliakbarahmadi, 2014). The study tends deal with assessing organizational readiness of effective factors in knowledge management establishment (like organizational, technological and knowledge management processes factors) and ranking these factors in terms of their significance in Department of IT at the Ministry of Industry, Mine and Trade. The paper aims at investigating the knowledge management readiness for establishment of knowledge management in Department of IT at the Ministry of Industry, Mine and Trade. Statistical universe of the study includes all experts and managers of Department of IT at the Ministry of Industry, Mine and Trade. The sample mass has been determined based on Cochran formula. In this study, a questionnaire was used to measure the variables. Validity was established using a panel of experts in the field. Reliability was calculated as 0.882 using Cronbach's alpha coefficient. Descriptive statistics and inferential statistics such as T-test and Friedman test were utilized to analyze data.

Finding: Prioritize the seven research variables in terms of significance. The research finding demonstrate that the eight variable of organizational culture, organizational leadership, organizational strategy, information technology, knowledge acquisition, knowledge conversion, storage and utilization are in appropriate position in settlement of knowledge management in Department of Information Technology at the Ministry of Industry, Mine and Trade. Among three main factors, Information Technology has the highest rank and organizational factors have the lowest rank. Also among organizational factors, organizational culture factor is placed in the lowest position for establishment of knowledge management. In addition, knowledge storage has the greatest effect among knowledge management processes.

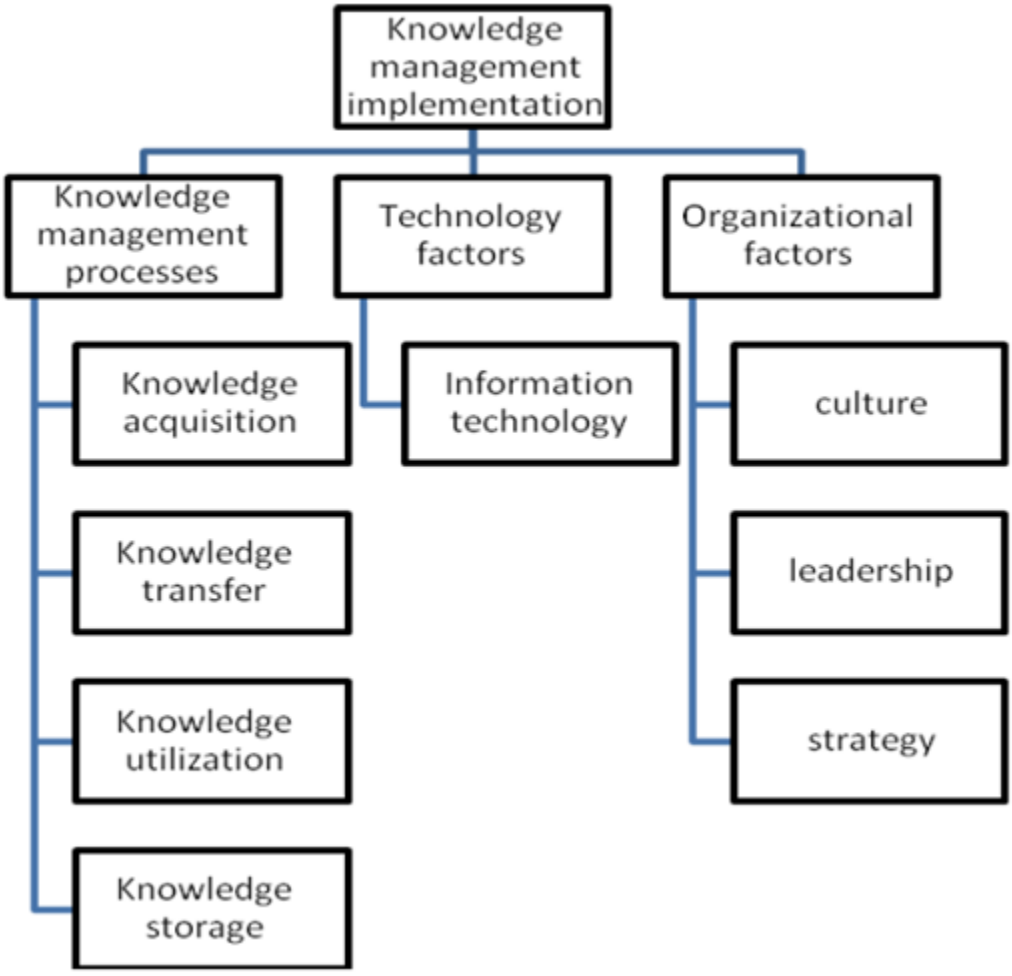

Figure 2.2: Research analytical Model

Ibrahim A. Alghamdi (Corresponding author) E-Government Readiness Assessment for Government Organizations in Developing Countries. ICT has become an increasingly important factor in the development process of nations. Major barriers can be met in the adoption and diffusion of e-government services depending on the readiness of a country in terms of ICT infrastructure and deployment. This study aims to define organizational requirements that will be necessary for the adoption of e-government to resolve the delay of ICT readiness in public sector organizations in developing countries. Thus, this study contributes an integrated e-government framework for assessing the ICT readiness of government agencies. Unlike the existing e-government literature that focuses predominantly on technical issues and relies on generic e-readiness tools, this study contributes a comprehensive understanding of the main factors in the assessment of e-government organizational ICT readiness. The proposed e-government framework comprises seven dimensions of ICT readiness assessment for government organizations including e-government organizational ICT strategy, user access, e-government program, ICT architecture, business process and information systems, ICT infrastructure, and human resource. This study is critical to management in assessing organizational ICT readiness to improve the effectiveness of e-government initiatives.

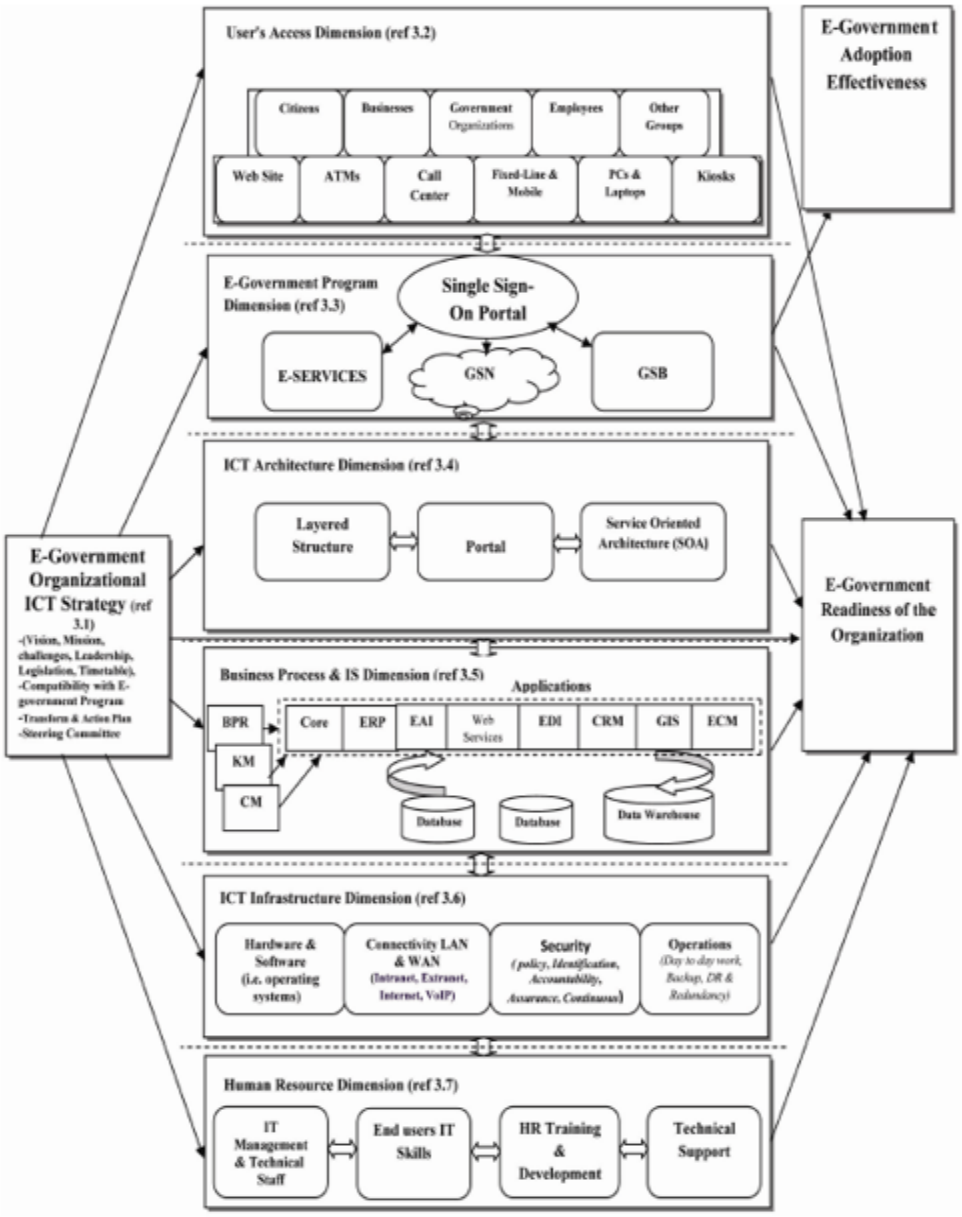

Figure 2.3: E-governmental Framework for assessing ICT Readiness in developing country

Measuring the e-readiness of higher education institutions Riga Student Research Papers, 2008). The author has defined e-readiness of a higher education institution (HEI) and developed a model—the e-Readiness Framework—for measuring it. The Framework performs assessment of e-readiness from three possible ways: Infrastructure, Information, and Human Capital. The components of the Framework are easily measurable and interpretable, which is an obvious advantage. Most individual components of the

Framework contain sub- components measurable in percentage terms of the maximal level, which allows an HEI to assess how much it is possible to improve them. Another advantage is that the model is based on variables that are not bound to a particular moment in time and, thus, it is free of having to be reconsidered after a short time period. Rather, the foundation of the Framework is best practices and standards, as well as logics. The author has also proved that the model is applicable by testing it on three Latvian HEIs: the Stockholm School of Economics in Riga, the Transport and Telecommunication Institute, and the RTU Riga Business School. Thus, the e-Readiness Framework proved itself as a ready-to-use tool of assessing e- readiness of an HEI.

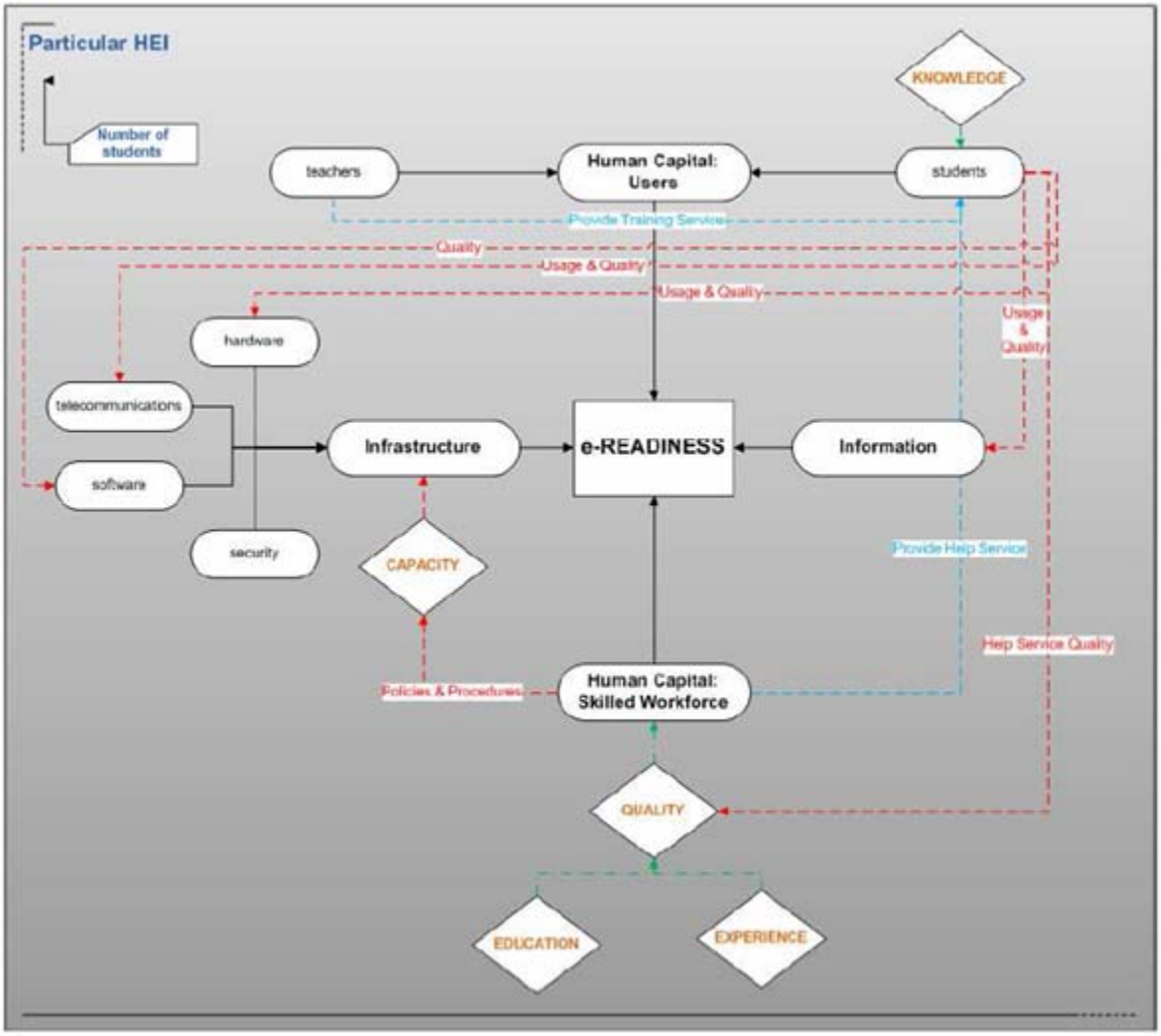

Figure 2.4: The General E-Readiness Framework

A Study by three researchers (Sepideh S., Neda A., and Saeedeh R., 2015) entitle assessing the organizational readiness for implementing knowledge management in organizations, after reviewing a comprehensive study of literature on readiness factors of knowledge management system implementation six factors were identified and have been tested in three different organizations to investigate whether a general model of readiness is applicable in all organizations.

Methodology: The data-gathering instrument was a questionnaire that designed based on key factors of organizationalknowledge management readiness. The reliability and validity of the questionnaire were examined using expert's ideas and Cranach's alpha, And the partial least squares (PLS) method was used for analyzing the measurement and validity of the questionnaire and to analyze the model.

Hence, factors affecting organization's readiness for KM implementation were extracted and classified in six groups of organizational culture, individual, IT infrastructure, knowledge process, strategy, and senior management commitment. After gathering data from three studied organizations (i.e., IT services, commerce and educational), the structural equation modeling was used for the analysis. The result of the structural model assessment indicated that the fit of the overall model was acceptable.

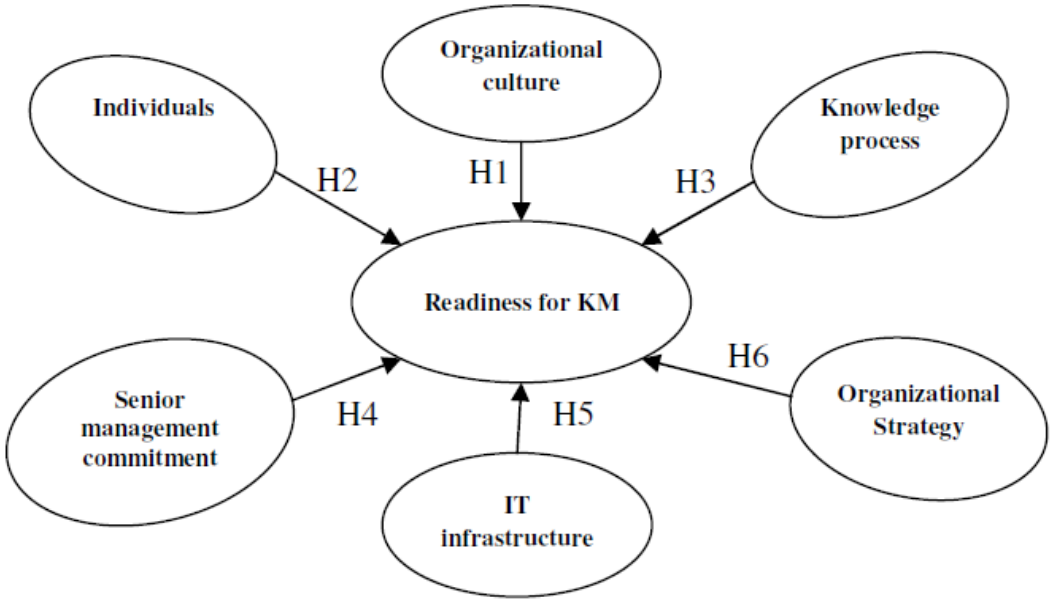

Figure 2.5: KM Readiness Model

2.11 ResearchGap

The main idea that drives the research evolves from the understanding that failure in knowledge management initiatives could be rooted in the lack of readiness to change. It happened because it is done only based on the theory and not considering the specific aspects of the organization (Lovinta H. and Kridanto S., 2009). Hence there are some factors play more important roles in KM readiness and must be noticed seriously.

Based on the relevant literature reviewed, the KM e-readiness indicators which had theoretically been proposed and practically used by researchers over the past 10 years were identified (Zahra D., 2014).These factors includes (Infrastructural, Human, Educational, Government, Management, Socio-cultural and Legal) and 44 indicators. Therefore, on the literature review new constrictive variables identified as a gap for Organizational readiness measurement for knowledge management system implementation which is strategy.However, though less attention has been given to Organizational strategy affect e readiness for KM this study is expecting to fill the gap.

Hence, it is compulsory to do knowledge management e readiness assessment with the eyes STOPE approach, Strategy, Technology, Organization, People and Environment (STOPE) that address strategic part of the organization with other dominant factors, to measure, whether the Commercial Bank of Ethiopia is ready before implementing knowledge management system.

Chapter Three

Research Model and Hypothesis

3.1. Research Model

When organization is e ready for knowledge management system implementation, employees and process variables can explain variances in commitment toward it. A model suggested by (O'Del et al., 1998), infrastructure, processes, culture and technology are identified as enablers of KM, as those enablers reflect organizational e readiness for Knowledge management implementation. (Jalaldeen et al., 2009) propose a model to assess KM readiness and its contributing factors for KM process adoption by integrating KM infrastructure and unified theory of acceptance and use of technology, and suggested that organizational readiness needs to be assessed by taking into consideration the organizational factors. Gold et al., 2001) introduce infrastructure capabilities (such as technology, structure and culture) and process features (such as processes of gain, conversion and use) as preconditions for effective KM readiness. That is why implementing knowledge management in an organization require significant organizational prerequisites. Lacking proper infrastructures and prerequisite, not only make the knowledge management process unsuccessful, but might incur harmful effects as well. To decrease such risks, it is proposed to introduce the knowledge management e readiness assessment, in order to gauge a company's appetite for the work involved in implementing the knowledge management.

Generally: An instrument to assess knowledge management e readiness research model developed based on the premise that knowledge management is enhanced through the critical success factors (CSFS)(Jenex, 2009). Before investing scarce resources in such risky projects, corporate leadership should address all parameter of readiness capability for a means to decrease uncertainty surrounding knowledge management initiative.

KM assessment readiness in this research provides intensive answers to two fundamental questions:

- What is the Banks's current KM capability? And,
- What prerequisite must be in place before embarking on a KM initiative?

On the basis of the literature review presented above a conceptual framework model of the factor that influence the success of Knowledge Management initiative in the context of Commercial Bank of Ethiopia derived in the form Key variables hindering knowledge management readiness are is proposed on this study.

Henceforth, The Key variables hindering knowledge management readiness are: Strategy, Technology, Organization, People and Environment (STOPE) approach including each has its own measurement Parameter.

3.1.1 The STOPE Based Approach

The first efforts in defining e-readiness were undertaken in 1998 by the Computer Systems Policy Project (CSPP) when it developed the first e-readiness assessment tool known as Readiness Guide for Living in the Networked World (Ali Nabavi, Reggie Davidrajuh, Volume X, No.2, 2009). Past studies have considered "technology: T", with "institutions or organization: O" and "individuals or people: P" as main domains to investigate technology in society. (LinstoneLinstone, 1994) provides an account of these past studies. In his work concerned with information and communication technology utilization and development, Bakry considered the "TOP" domains, and added two complementary domains that is "strategy: S" and "environment: E". The result was the STOPE framework, that was used by Bakry and his colleagues for various studies including studies concerned with: e-business (Bakry, 2001andBakry, 2002); e-government (Bakry, 2004);" enterprise resource planing: ERP" (Bakry, 2005); applications of information services (JamalAl-Deen, 2000);

The value to a community or organization of assessing its readiness lies in evaluating its unique opportunities and challenges. Based on a UN report in 2004, not a single Africa

country has made it into the top 50 global e-Government readiness ranking. The e-Readiness report has shown a decline of the readiness index for all African countries (UN, 2004).

While a few countries deemed regional leaders generally improved or maintained their global positions, the countries at the bottom e-government readiness in Africa trailed behind the rest of the world. Despite belonging to the least e-ready region in the world, 15 out of 45 countries in Africa registered an improvement in their rankings; 26 declined in relative rankings. D.R. Congo and Côte d'Ivoire came online in 2004 even though their offerings remained limited. Even though at the lower end, the largest gain was posted by Swaziland which jumped from 120 position in 2003 to 101 in 2004. Similar improvements were noted in the case of Malawi (+7), Congo (+ 7), and Mozambique (+7), among others. (UN, 2004). This all to show that E-Readiness is difficult to manage if a country is pay attention to it.

Country	2003	2004	Difference
Mauritius	51	52	+1
South Africa	55	45	-10
Egypt	136	140	+4
Ethiopia	170	166	-4
Mali	172	163	-9

Table 3.1: E-government readiness rankings for Africa (UN, 2004)

The STOPE framework has been developed and used for the evaluation of different ICT problems, including e-business and e-government planning (Bary, 2001 and Bary, 2004), information security management Bary, 2003), and the emerging enterprise resource planning tools (Bakry, 2005). This paper introduces an approach concerned with using STOPE or e-readiness assessments.

Although many studies have introduced various e-readiness assessments, as mentioned in the literature review, this studies where based on five attributed factor and sub factor assumption. The framework is concerned with providing a comprehensive framework, for e-readiness assessments, that integrates the various factors considered in different studies. For this purpose the paper uses Bakry's STOPE, "strategy, technology, organization, people, an environment" framework; and in mean time, it keeps adding and integrating other potential sub factors.

3.1.2 The STOPE model Framework

The framework is explained in the following according to the five STOPE domains. The sub-domains and the sub-sub-domains of each domain are addressed. As putted in the below table.

The "strategy" domain integrates the factors concerned with "future directions, commitments and plans toward ICT development and utilization". Two sub-domains are considered to be associated with this domain: "leadership" and "future development plans". Table 3 provides an account of this main domain, presenting the sub-sub-domains of each sub-domain with explanations toward further refinement to enable the derivation of measurable entities. The "technology" domain integrates the factors concerned with the "current state of issues concerned with ICT facilities". Four sub-domains are considered to be associated with this domain: "ICT basic information infrastructure", "ICT e-services infrastructure", "ICT provisioning", and "ICT support". In a similar manner to the "strategy" domain, Table 5 provides an account of the "technology" domain, presenting the sub-sub-domains of each of its sub-domains, with explanations for further refinement toward obtaining measurable entities. The "organization" domain

integrates the factors related to the "current state of issues concerned with ICT regulations and management". Three sub-domains are considered to be associated with this domain: "ICT government regulations", "ICT cooperation among organizations", and "ICT management". In a similar manner to the above domains, Table 6 describes the "organization" domain in terms of its sub-domains and sub-sub-domains, with explanations given to the sub-sub-domains for further refinement toward specifying measurable entities. The "people" domain integrates the factors associated with the "current state of issues concerned with ICT users and skills". The domain is considered to consist of four sub-domains: "ICT awareness", "ICT education and training", "ICT qualifications and jobs", and "management of ICT skills". Table 8 describes the "people" domain in terms of its sub-domains and sub-sub-domains, with extra explanations given to the sub-sub-domains for further refinement toward the measurable entities. The "environment" domain integrates the factors associated with the "current state of the basic non-ICT issues surrounding and affecting the current state of ICT". The domain has four sub-domains: "knowledge", "resources and the economy", "organization" including general regulations, cooperation and management, and the basic "non-ICT infrastructure". Table 9 describes the "environment" domain in terms of its sub-domains and sub-sub-domains, with extra explanations of the sub-sub-domains for further refinement.

STARTEGY		
"Directions, commitments and plans to ward ICT development and utilization"		
ISSUE	FACTOR	EXPLANATION
ICT Leadership	Vision	Priority: e-Business/Knowledge society
		Directions / Initiatives
	Government support	Plans / Projects /Funds / Other support
	Commitment	President involvement
		Position of ICT managers: CIOs
		E-Business team: Members from all departments/Reporting to the president
	ICT Managers / Responsibilities	Qualifications / Position (Influence)
Future Development Plans	Technology (ICT) Plan	Basic ICT communication & information infrastructure / ICT e-services infrastructure / ICT provisioning / ICT support
	Organization ICT Plan	ICT government regulations / ICT cooperation / ICT management
	ICT HR Plan	ICT awareness / ICT education and training / ICT qualifications and jobs / Management of ICT skills
	Related Non-ICT Plans: Environment	Knowledge / Resources and the economy / Organization / Basic services infrastructure

Table 3.2: E-readiness "strategy" issues

TECHNOLOGY		
"Current state of issues concerned with ICT facilities"		
ISSUE	FACTOR	EXPLANATION
ICT Basic Communication & Information Infrastructure	Availability	computers / Fixed telephones / Cellular phones / High speed lines / Internet / Intranet (for organizations)
	Performance	Installation delay / Failures / Speed (Rate)/ Congestion / Delay: Measures
ICT e-Services Infrastructure	Government	portals & Webs / G2G services / G2B services / G2C services: e-Transactions
		Utilization / Performance: Measures
	Business/ Organization	Portals & Webs / B2G Services / B2B Services / B2C Services:e-Transactions
		Utilization / Performance: Measures
ICT Provisioning	Products / Market	communications / Hardware / Software: Market size (purchasing)/ Imports / Local production (Exports)
		Security products
		National language products
	Performance	Contracts: Utilization / Delivery of products / Updating and upgrading
ICT Support	Standards	Availability and use of standards: Local / National / International
	Operation & Maintenance	Availability of operation and maintenance sources: Local / National / International
		Performance: Measures

Table 3.3: E-readiness "technology" issues

ORGANIZATION		
"Current state of issues concerned with ICT regulation and management"		
ISSUE	FACTOR	EXPLANATION
ICT Government Regulations	Basic ICT Regulations	Legal framework for ICT business
		Adaptation of ICT technical standards: National /International
		Computer Crimes / Software Piracy
	CT Business Regulation	Foreign investment / Competition
		Pricing / Tariffs
	Internet Services Regulations	Domain name (DN)registration
		Authorization of Internet services providers (ISPs)
	E-Business Services Regulations	Digital Signature / Public key infrastructure (PKI)
		Business transactions / e-Taxation
ICT Cooperation	Knowledge Sharing for Innovation	Cooperation: Industrial and professional sector / Educationand research sector (Innovation / Development)
	Partnerships / Services	e-Business: Customers /Suppliers/ Outsourcing (Value chain / Value system): Local / National /International
ICT Management	Measures	Evaluation measures
	Change	Flexibility and adaptation to emerging requirements
	Quality	Timely service/ Quality Service / Impact of Competition
		Use of modern management techniques
	Cost / Affordability	Cost of ICT facilities / Cost of access, use and maintenance: Relative to income

Table 3.4: E-readiness "Organization" issues

PEOPLE		
"Current state of issues concerned with ICT users and skills"		
ISSUE	FACTOR	EXPLANATION
ICT Awareness	ICT literacy	Understanding ICT advantages
		Resistance / Adaptability to ICT change
		ICT / Internet use
	Education System Support	ICT in general education and training
		CT and Internet access in education and training institutions / e-Learning
	Media Support	ICT in the public media
ICT Education & Training	ICT Qualifications	Programs and graduates: School level / University level / Professional level / Training
		Support: ICT facilities
	e-Education / e-Learning	On-line courses at all levels
ICT Qualifications & Jobs	Jobs	ICT skills in ICT jobs / ICT skills in non-ICT jobs / Non-ICT skills in ICT jobs
	Skill	Availability of ICT skills / Need for ICT skills: Matchin
Management of ICT Skills	Performance	Productivity of ICT skills
	Satisfaction	Retaining ICT skills

Table 3.5: E-readiness "People" issues

ENVIRONMENT		
"Current non-ICT Issue surrounding and affecting the current state of ICT facilities"		
ISSUE	FACTOR	EXPLANATION
Knowledge	Culture	Identity and profile
		Literacy: Technology / ICT
		Knowledge of English
	Education & Training	Quality of the education system
		Science and technology: Schools / Universities
		Research and development: Technology parks & incubators
Resources & Economy	Natural Resources	Availability / Value
	Revenues /Profitability	Productivity / Profitability
	Trade	Import / Export
	Income	Income per capita / Income relative to cost of living: Standard of living
Organization	Government Regulations	Rule of law
		Business opportunities
	Cooperation	Local / National / International
	Management	Impact of culture on work: Positive / Negative
		Technological development and change: Acceptance / Response
		Use of modern management techniques
		Retaining Skills
Infrastructure	Utilities	Basic services: Electricity / Transportation / Postal System / Health care

Table 3.6: E-readiness "Environment" issues

Organizational e readiness for Knowledge management is considered a critical prerequisite to the successful implementation of KM (Siemieniuch and Sinclair, 2004; Kamaraet al., 2002). The implementation of Knowledge management is not only difficult but also risky if the company do not know what knowledge they have and the importance of it (Faiet al., 2005). Literatures have suggested that an instrument to assess e readiness should be developed based on the premise that knowledge management is enhanced through the critical success factors. These factors are the main contributing factors for adoption of KM strategy, though they have termed them differently. For example, KM enablers (Lee and Choi, 2003; Egbuet al., 2001) KM critical success factors (Al- Alawiet al., 2007; Wong, 2005), influencing factors on KM (Holsapple and Joshi, 2000), and KM initiatives (Kulkarniet al., 2007).

The importance of a knowledge sharing culture as an enabler for the transfer and creation of knowledge is directly addressed by such authors as (Bukowitz& Williams,1999), (Davenport and Prusak, 2000), and Gamble and Blackwell (2001). In order to make knowledge management initiatives work in practice, the employees within the firm must be willing to share their knowledge with others. This means employees will eventually share and exchange knowledge and ideas with each other because it is natural phenomena in the organization rather than being forced to do that. (Mckinslay and Williamson, 2010). Culture is a shared system of perceptions and values, or a group who share a certain system of perceptions and values (Soley and Pandya, 2003). Different research mention again about KM factors, also known as knowledge management enablers, should be clear in an organization, because not only they create knowledge but they also prompt people to share their knowledge and experiences with others (Yeh, Lai, & Ho, 2006). Additionally, (Davenport et al., 1998) conducted a study to explore the practices of 31 knowledge management projects in 24 companies, with the aim of determining the factors associated with the effectiveness. The result identified 18 successful projects with eight success factors. These factors, one of which is motivational practices (Wong, 2005). Based on the aboveliterature understanding the following knowledge management enablers are identified as KM E readiness.

KNOWLEDGE MANAGEMENT E READINESS		
"ICT Issue affecting the current state of organizational Knowledge management "		
ISSUE	FACTOR	EXPLANATION
Shared Knowledge	Web Portal, Knowledge base system	Is highly structured, is systematic in its nature and the product of more than one employee. While employee contribute to it, shared knowledge does not depend only upon the contributions of a particular employee there are possibilities for others to check and amend individual contributions and add to the body of knowledge that already exists.
Employee Interaction	Networking media to organizational Knowledge	Refers to studying and describing interpersonal matters established between employees: the peers (colleagues and co-workers), and their managers, so interaction can be horizontal (how the workers relate to each other) and vertical (how workers relate with their supervisors and managers).
Motivated Worker	Core Banking, E-Payment, Mobile & Internet Banking	Refers to the level of energy, commitment, and creativity that a company's workers bring to their jobs.
Organizational Infrastructure	Content and document management systems	Describes the basic components of CBE's including its leadership, legal documentation, staff policies and procedures, financial accounts and procedures.
Employee Involvement	ERP, PMS	it is a management and leadership thinking about how people are most enabled to contribute to continuous improvement and the ongoing success of their work organization

Table 3.7: E-readiness for KMimplementation issues

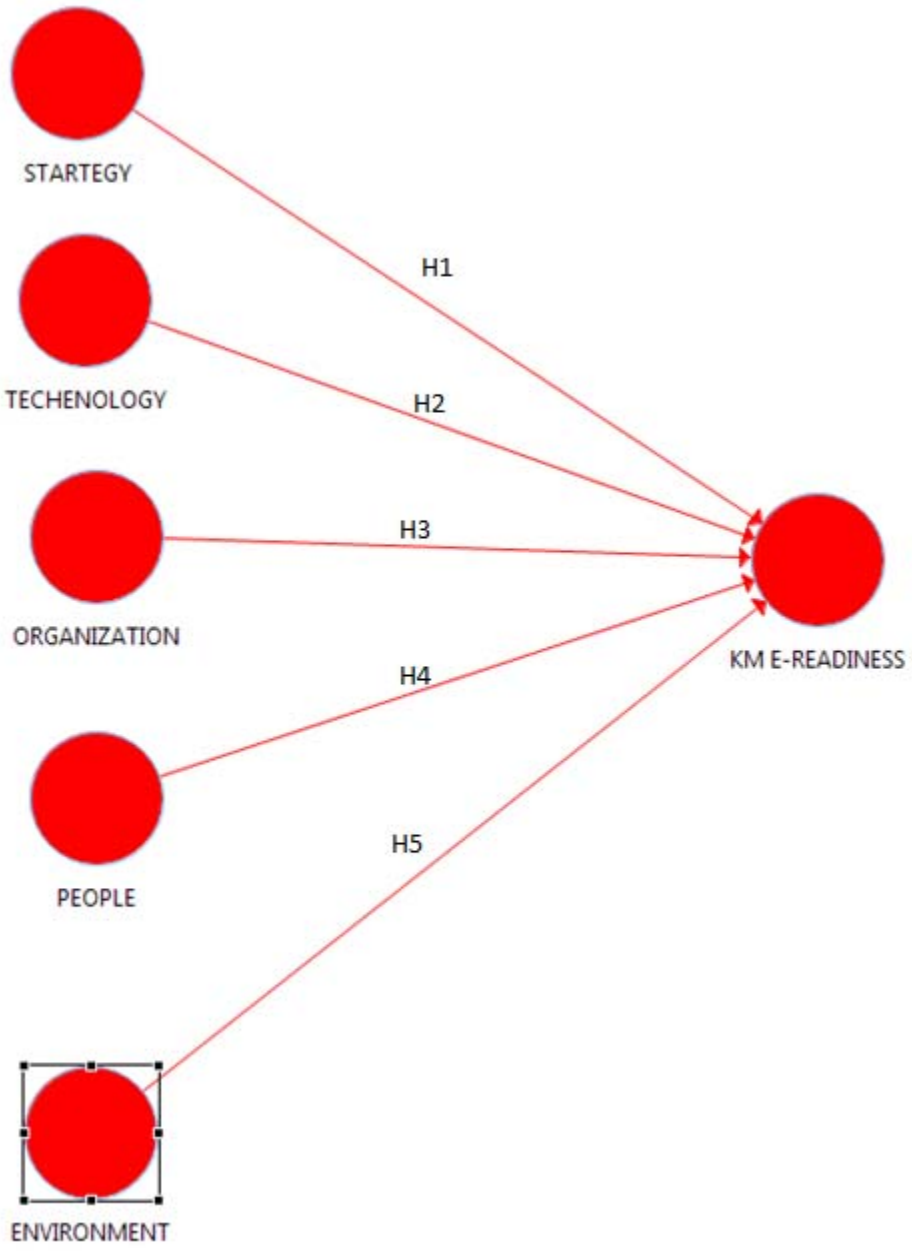

Figure 3.1: Theoretical framework of the study using STOPE Model

E-Readiness is a measure of the degree to which a country, nation or Economy in our case the Commercial Bank of Ethiopia may be ready, willing or prepared to obtain benefit which arise from information and communication technology. This Readiness measurement is often used to gauge how ready a bank is to participate in electronic activity such as E-banking.

The Couse and effect of e-readiness in E- banking Environment can be explained in terms of factor that indicate how responsive and adaptive the bank is to internet based opportunity. Hence E-readiness can be influenced by many causes (As mentioned in chapter two) but in this chapter the Couse for not being ready by the researcher is clarifying. These are Strategy, Technology, Organization, People, and Environment (as mentioned below). The consequence surly result in dragging to Electronic Reluctance this indeed influence Knowledge management readiness in the bank. The feature for the hypothesis development explained below clarify it more

3.2. Hypothesis

Understanding the above research measurement variable assumption the following hypothesis proposed.

- **Strategy**

(Ndou, 2004) represents seven main challenges for e-Government development and implementation in developing countries of which, strategy is the one that challenges e-readiness. In addition (Divjak and Begicevic, 2011) presented e-readiness assessment model in E-readiness report for e-learning implementation in Kosovo. They developed model with five main significant factors for e-readiness one of which is strategy. Based on the above studies the following Hypotheses is developed.

- **Hypothesis 1 (H1):** Strategically E readiness will be a factor for determining the adoption of knowledge management.

- **Technology**

A study by Abdel Nasser H. Zaied 1, Faraj A. Khairalla and Wael Al-Rashed about Assessing e-Readiness in the Arab Countries point out that infrastructure/Technology is a variable that can measure E-Readiness. Meanwhile the UN E-Government Readiness Survey 2004 assesses the public sector e-government initiatives of Member States according to a weighted average composite index of e readiness based on website assessment, telecommunication infrastructure and human resource endowment. Based on the above studies the following Hypotheses developed,

  - **Hypothesis 2 (H2):** Technological E readiness will be a factor for determining the adoption of knowledge management.

- **Organization**

Dada, D. (2006) in his study about e-readiness for developing countries: moving the focus from the environment to the users point out that simply creating an e-ready environment did not enable firms to successfully partake in e-commerce. The costs, skills, organizational issues, and other features of service provision that are essential for successful international trade must be considered if policies to promote e- readiness are beneficial to developing country firms. Besides a study by Amare Ayalew and GetachewHailemariam, 2004 about Assessment of Ethiopian Health Facilities Readiness for Implementation of Tele medicine reflect Organization readiness took the highest rank for readiness rate. Based on the above studies the following Hypotheses developed,

  - **Hypothesis 3 (H3):** Organizational E readiness will be a factor for determining the adoption of knowledge management.

- **People**

AlirezaKamanghad in his paper about E-Readiness Assessment of wholesale distribution companies for implementing E-CRM (Customer relation management (CRM) saying that people is the factor for E-readiness. Moreover a study by Abdel Nasser H. Zaied 1, Faraj A. Khairalla 2 and Wael Al-Rashed about Assessing e-Readiness in the Arab Countries point out that Human skill in, our study People, is a variable that can measure E-Readiness. Based on the above studies the following Hypotheses developed.

- **Hypothesis 4 (H4):** People E readiness will be a factor for determining the adoption of knowledge management.

- **Environment**.

A study by Alemayehumola and Paul S. Licker, 2005 about Perceived E-Readiness Factors in E-Commerce Adoption: An Empirical Investigation in a Developing Country, explore the factors that affect e-commerce adoption in a developing country. It proposes a research model, based on perceived organizational e-readiness (POER) and perceived environmental e-readiness (PEER), that encompasses invitational, managerial, organizational, and environmental characteristics as determinants of e-commerce adoption and institutionalization. Based on the above studies the following Hypotheses developed.

- **Hypothesis 5 (H5):** Environmental E readiness will be a factor for determining the adoption of knowledge management.

Besides all approach and it's variables can indicates the current status of Knowledge Management in the bank and also points to what extent the bank needs to prepared to improve its capabilities in commitment and obligation toward Knowledge Management implementation. In line with the latter researcher and his colleagues this assumption also contributes to the body of knowledge by reflecting the way these change readiness

elements shape knowledge management preparedness guideline in banking and financial industry that offers unique insights, which is less explored in the extant KM literature.

Chapter Four

Research Methodology

The research organization comprises the target population that refer the entities under study, which is the hypothetical population that reflect the whole employee under Commercial bank of Ethiopia, specifically the accessible population that talk about descriptive of the bank employee from which sample was drown that reflect good size to warranty statistical analysis, then briefly explain the process of gathering facts and information on the researchable employee in attempting to establish complete and accurate assessment against the collected data and finally show the process of reviewing , cleaning, transforming and modeling data with the goal of discovering useful information , which present conclusion and recommendation that will probably support decision making.

4.1 Population

4.1.1 Target Population:

The population under which the researcher like to generalize which are both frequently and infrequently available (The whole CBE Staff who work in all over the Country)

4.1.2 Study Population:

The population under which the researcher is able to generalize which are frequently available which is the 3062 employees is the CBE's staff who work in Addis Ababa city.

4.1.3 Sample Population:

The selected Head Office organs and branches. That is the representative of the researchable employee of Commercial Bank of Ethiopia. Which is 100 employees are selected out of which half of it for Head Office and the rest fifty employees from branches.

4.2 Sampling Techniques

To investigate the level of KM e-readiness of the Bank for implementing knowledge management it is important to focus on the organizational behavior, how employee and organization interact to retain the expert knowledge, so that the less experience can gain knowledge of the expert. To explain the various level of knowledge interactions it is crucial to adopt non probabilistic sampling which is maximum variation sampling techniques of purposeful sampling. Since the research methods is case study, it is practical to implement purposeful sampling. According to (Schutt, 2006) purposive sampling is valuable when doing a case study on an organization, a community or any well-defined and reasonably restricted group.

4.2.1 Determination of Sample Size in using PLS-SEM

No matter which PLS-SEM software is being used, some general guidelines should be followed when performing PLS path modeling. Determining the appropriate sample size is in general, need to consider the background of the model, the distributional characteristics of the data, the psychometric properties of variables, and the magnitude of their relationships when determining sample size. (Hair et al., 2013) Determining the sample size can be driven by the following factors in a structural equation model design:

- The significance level
- The statistical power
- The minimum coefficient of determination (R2 values) used in the model
- The maximum number of arrows pointing at a latent variable

In practice, a typical behavioral research study would have a significance level of 5%, a statistical power of 80%, and R2 values of at least 0.25. Using such parameters, the minimum sample size required can be looked up from the guidelines suggested by (Marcoulides and Saunders 2006), depending on the maximum number of arrows pointing at a latent variable as specified in the structural equation model (see Table 4.1)

Minimum sample size required	Maximum # of arrows pointing at a latent variable in the model
52	2
59	3
65	4
70	5
75	6
80	7
84	8
88	9
91	10

Table 4.1: Suggested Sample Size in a Typical Marketing Research

Note That: Although PLS is well known for its capability of handling small sample sizes, it does not mean that the goal should be to merely fulfill the minimum sample size requirement. Prior research suggests that a sample size of 100 to 200 is usually a good starting point in carrying out path modeling (Hoyle, 1995). This case study by considering the assumption increase the sample size to get better result.

4.3 Method of Data Collection

The methodology followed for the purposes of this research is quantitative data.

4.3.1 Extensive gathering of paper based questionnaires

Thehundred questionnairesequally selected from head office and branchesare consisting of a series of question regard to KM readiness level in different readiness parameter STOPE Approach for the purpose of gathering information from respondent. Even though it is designed for statistical analysis the questionnaire planned to be all round that addresses the level of knowledge management readiness of the Bank.

The questionnaires, which is a source of main data collection focused on the area of:

- Assess strategicissue in related to knowledge management readiness
- What kind of knowledge management tools do they employed
- Organizational preparedness to adopt knowledge management
- employ's awareness in relation to technology usage
- Assessingthe impact of non ICT environment and KM e readiness to facilitate knowledge creation, processing, utilization and dissemination.

4.4 Method of Data Analysis and Presentation

4.4.1 Data analysis

The quantitative Data collected from questionnaires, using data coding, are changed to rating scale. This converted data coded becomes ready for statistical analysis then using statistical software for structural equation modelling (SmartPLS 3) the data will be converted from information to knowledge and ready for interpretation.

4.4.2 Data Presentation

The quantitative data obtained from Data Analysis will be explained by using graph and table which can expect to clarify the following

- The data description and summarization
- Identification of relationship and difference between variable
- Compare and contrast variable

- Analyze the result and discussing findings
- Present Conclusion and recommendation

Chapter Five

Data analysis and interpretation

5.1. QuantitativeData Result Presentation

5.1.1 Introduction

The STOP-based approach is used here for practical Knowledge management e-readiness assessment case studies. The approach integrates and evaluates the various e-readiness assessment issues, over its well-structured domains: strategy, technology, organization, people, and environment. The results obtained provide KM e-readiness indicators that indeed support the organization to get more focus, on weakness and strength, with regard strategic development issues, information and communication technology (ICT) issues, management and organization issues, people issues, and environment issues within which the organization operates. The study and data analysis shows how the approach can be applied, and provides practical results that direct the organizations concerned toward enhancing and prioritizing to addressKM e-readiness.

Generally: The main emphasis behind the study is to assess the commercial bank of Ethiopia's ability in improving and supporting digital banking business and ICT Services in response to the current trend of knowledge Economy

5.1.2 Socio-demographic Characteristics and distributions of respondents

The demographic and Characteristics of the variables used in this study are categorized under Gender, Age Group and Work Experience. Meanwhile, work experience merged and categorized as Junior (Less than 5) and Senior (Greater than Five) for further data analysis. There were a total of 100 respondents, the majority of whom are degree holders

(86%) the rest are master's degree (14%) However 66% of the respondent becomes Junior.

N= 100						
	Category	Head-Office		Branch		Total Percentage
		Frequency	Percentage	Frequency	Percentage	
Gender	Male	27	54%	27	54%	54%
	Female	23	46%	23	46%	46%
Age Group	Less Than 25	1	2%	39	2%	40%
	25 up to 35	34	68%	11	68%	45%
	36 up to 45	14	28%	Nil	28%	14%
	Above 45	1	2%	Nil	2%	1%
Work Experience	Junior	18	36%	48	36%	66%
	Senior	32	64%	2	64%	34%

Table 5.1: Socio-demographic Characteristics

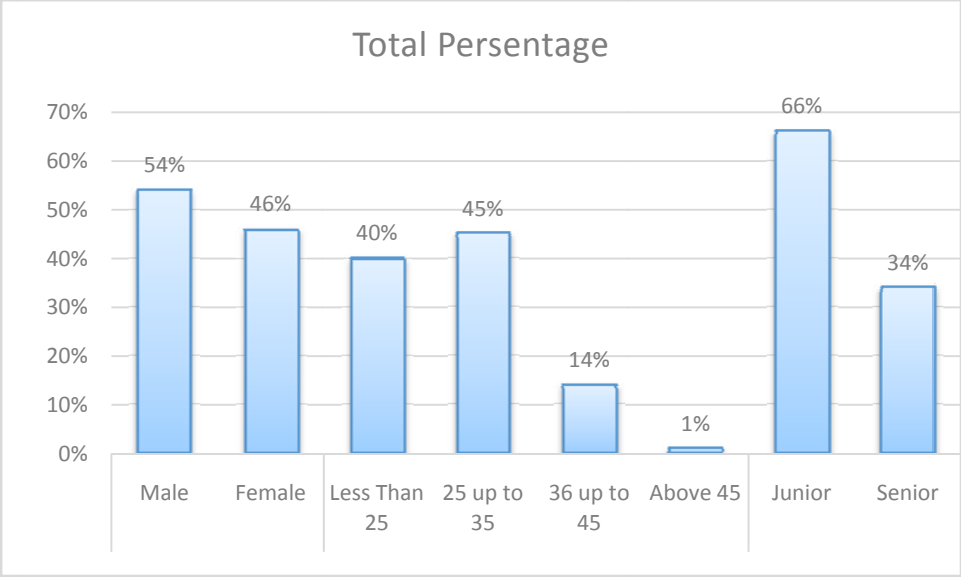

Figure 5.1: Summary of Socio-demographic

5.1.3 Assessing the PLS-SEM Output

The PLS-SEM algorithm is run by using "Calculate → PLS Algorithm "and successfully converged within the guideline suggested by Hair et al., (2013). The PLS-SEM algorithm should converge in iteration lower than the maximum number of iterations (e.g. 300) as set in the algorithm parameter settings; in this PLS Path model estimation, the algorithm successfully converged after Iteration **7.**

5.2. Finding &Interpretation

5.2.1 Interpretation of relationships between latent variables and their Indicators

If the indicator are highly correlated and interchangeable, they are reflective and their reliability and validity should be thoroughly examined (Haenlein&kaplan, 2004; Hair et al., 2013; Petter et al., 2007).For example, the latent variable Strategy in our KM E-Readiness data set is made up of ten observed indicators. Their outer loadings, composite reliability, AVE and its square root should be examined and reported. In a reflective measurement scale, the causality direction is going from the blue-color latent variable to the yellow-color indicators. Since SmartPLS tools choose to assume the indicators as

reflective, with arrows pointing away from the blue-color latent variable, all of the indicators in this study is reflective, and continue to explore this reflective using the PLS-SEM analysis

5.2.2 Interpreting the Path model

Before interpreting the finding first step is to examine the indicator reliability, internal consistency reliability, discriminant validity, and convergent validity of the reflective measurement model to ensure that the results are satisfactory (Wong, 2013).

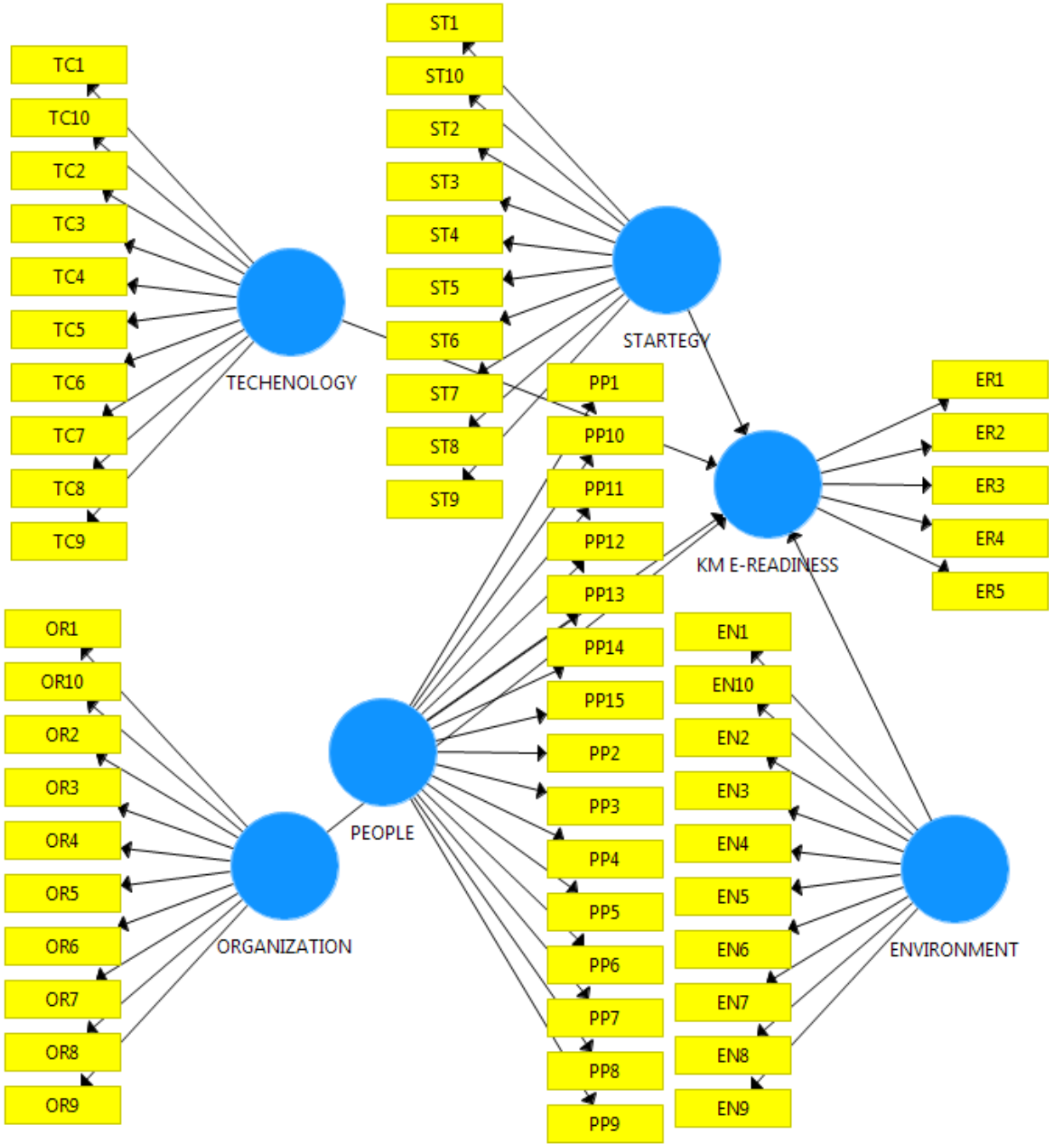

Figure 5.2: Over View of PLS-SEM Path model Result

5.2.1.1 Indicator Reliability

In SmartPLS, To Test Indicator reliability look for Indicator and Internal Consistency Reliability is applied and for Validity Convergent and Discriminant validity is analyzed as shown on (Table 5.2)

What to check?	What to look for in SmartPLS?	Where is it in the report	Is it OK?
Reliability			
Indicator Reliability	"Outer loadings" numbers	PLS->Calculation Results->Outer Loadings	Square each of the outer loadings to find the indicator reliability value. 0.70 Or higher is preferred. If it is an exploratory research, 0.4 or higher is acceptable. (Hulland, 1999)
Internal Consistency Reliability	"Reliability" numbers	PLS -> Quality Criteria -> Overview	Composite reliability should be 0.7 or higher. If it is an exploratory research, 0.6 or higher is acceptable. (Bagozzi and Yi, 1988)
Validity			
Convergent validity	"AVE" numbers	PLS->Quality Criteria->Overview	It should be 0.5 or higher (Bagozzi and Yi, 1988)
Discriminant validity	"AVE" numbers and Latent Variable Correlations	PLS->Quality Criteria->Overview PLS->Quality Criteria->Latent Variable	(Fornell and Larcker, 1981) suggest that the "square root" of AVE of each latent variable should be greater than the correlations among the latent variables

Table 5.2: Checking Reliability and Validity

The First Iteration to check Outer loadings numbers greater than or equal to 0.70 to confirm validity. The result output Path Model is as shown below (See Figure: 5.3)

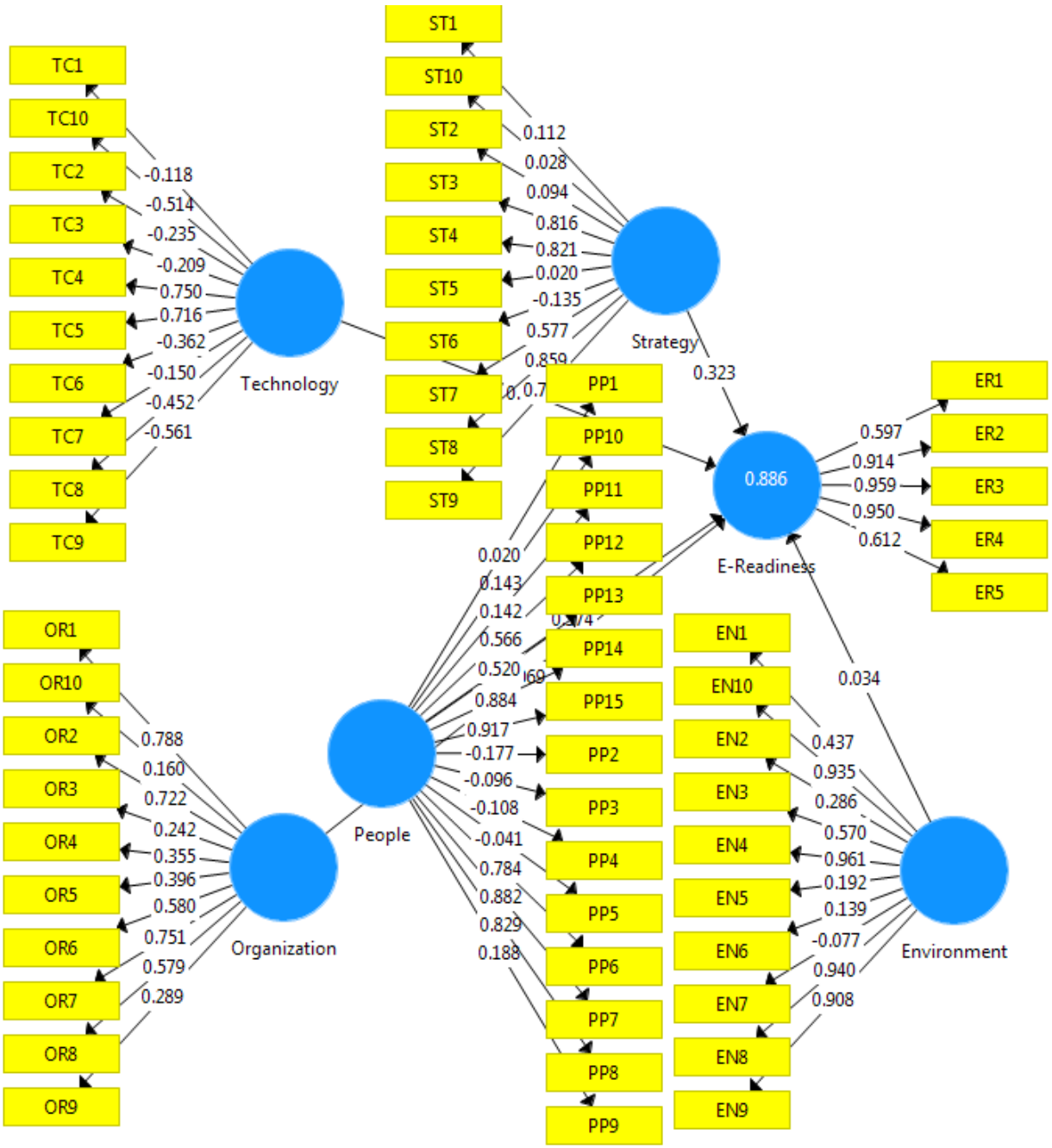

Figure 5.3: Over View of First Iteration PLS-SEM Path model

Note That:

Numbers in the circle: These show how much the variance of the latent variable is being explained by the other latent variables.

Numbers on the arrow: These are called the path coefficients. They explain how strong the effect of one variable is on another variable. The weight of different (As shown in the Figure: 5.4)

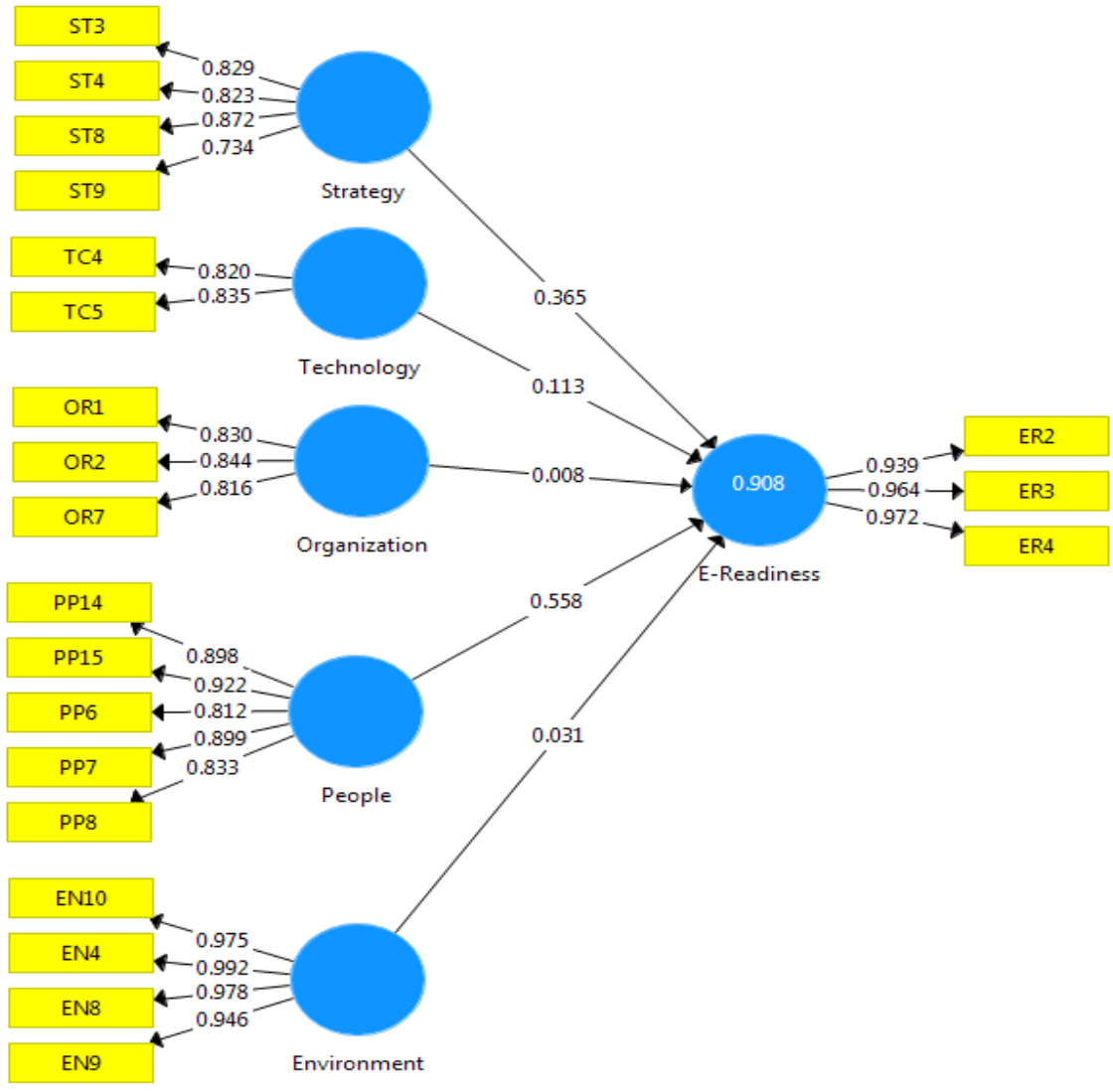

Figure 5.4: Over View of Second Iteration PLS-SEM Path model

5.2.1.2 Indicator Reliability Finding

Since reliability is a condition for validity, indicator reliability is first checked to ensure the associated indicators have much in common that is captured by the latent construct. After examining the outer loadings for all latent variables1, the 6 indicators that form Strategy, 8 indicators that form Technology, 7 indicators that form Organization, 10 indicators that form People, 6 indicators that form Environment, and 2 indicators that form KM E-Readiness are removed because their outer loadings are smaller than the 0.4 threshold level (Hair et al., 2013). The remaining indicators are retained because their outer loadings are all 0.7 or higher. An indicator's outer loading should be 0.708 or above since that number squared (0.7082) equals 0.50, meaning the latent variable should be able to explain at least 50% of each indicator's variance. The PLS algorithm is re-run. The resulting path model estimation is presented in (Figure 5.4: Over view of Second Iteration PLS-SEM Path model

5.2.3 ThePLS-SEM study result Finding

Since PLS-SEMF used to find fundamental relationship between a latent variable some basic elements should be covered in this research report. As discussed earlier the study follows a reflective measurement model the below report discussed based on it.

5.2.3.1 Explanation of target endogenous variable variance

The coefficient of determination, R2, is 0.908 for the KM E-Readiness endogenous latent variable. This means that the five latent variables (Strategy, Technology, Organization, People, and Environment) moderately explain 90.8% of the variance in KM E-Readiness

5.2.3.2 Inner model path coefficient sizes and significance

The inner model suggests that people (0.558) has the strongest effect on e-readiness (0.908), followed by strategy (0.365), technology (0.113), environment (0.031) and organization (0.008). The hypothesized path relationship between people and KM e-readiness, the hypothesized path relationship between strategy and KM e-readiness is and, as well as the hypothesized path relationship between technology and KM e-readiness is statistically significant. However, the hypothesized path relationship

between environment and KM e-readiness as well as organization and KM e-readiness is not statistically significant. This is because its standardized path coefficient of environment and organization (0.031 and 0.008) respectively is lower than 0.1 (Hair, J.F., Hult, G.T.M., (2014). Thus we can conclude that: people, strategy and technology are all moderately strong predictors of e-readiness, but environment and organization does not predict e-readiness directly.

5.2.3.3 Outer model loadings and significance

Latent Variable	Indicators	Loadings	Indicator Reliability (i.e., loadings2)	Composite Reliability	AVE
Strategy	ST3	0.829	0.687	0.888	0.666
	ST4	0.823	0.677		
	ST8	0.872	0.760		
	ST9	0.734	0.538		
Technology	TC4	0.820	0.672	0.813	0.685
	TC5	0.835	0.697		
Organization	OR1	0.830	0.689	0.869	0.689
	OR2	0.842	0.709		
	OR7	0.816	0.666		
People	PP6	0.812	0.659	0.942	0.764
	PP7	0.899	0.808		
	PP14	0.898	0.806		
	PP15	0.922	0.850		
Environment	EN4	0.992	0.984	0.986	0.947
	EN8	0.978	0.956		
	EN9	0.946	0.895		
	EN10	0.975	0.951		

Table 5.3: Results Summary for Reflective Outer Models

5.2.3.4 Internal consistency reliability

Traditionally, "Cronbach's alpha" is used to measure internal consistency reliability in social science research but it tends to provide a conservative measurement in PLS-SEM. Prior literature has suggested the use of "Composite Reliability" as a replacement (Bagozzi and Yi, 1988; Hair et al., 2012). From (Table 5.3) such values are shown to be larger than 0.6, so high levels of internal consistency reliability have been demonstrated among all five reflective latent variables.

5.2.3.5 Convergent validity

To check convergent validity, each latent variable's Average Variance Extracted (AVE) is evaluated. Again from table 5.3, it is found that all of the AVE values are greater than the acceptable threshold of 0.5, so convergent validity is confirmed.

5.2.3.6 Discriminant validity

(Fornell and Larcker, 1981) suggest that the square root of AVE in each latent variable can be used to establish discriminant validity, if this value is larger than other correlation values among the latent variables. To do this, a table is created in which the square root of AVE is manually calculated and written in bold on the diagonal of the table. The correlations between the latent variables are copied from the "Latent Variable Correlation" section of the default report and are placed in the lower left triangle of the table (see Table 5.4).

	Knowledge Management E-Readiness	Environment	Organization	People	Strategy	Technology
KM E-Readiness	**0.958**					
Environment	-0.195	**0.973**				
Organization	-0.249	0.249	**0.830**			
People	0.916	-0.278	-0.286	**0.874**		
Strategy	0.894	-0.151	-0.231	0.823	**0.816**	
Technology	0.696	-0.152	-0.193	0.612	0.680	**0.828**

Table 5.4: Fornell-Larcker Criterion Analysis for Checking Discriminant Validity

For example, the latent variable Environments AVE is found to be 0.947 (from Table 5.3) hence its square root becomes 0.973. This number is larger than the correlation values in the column of EXPECT (0.249, -0.278, -0.151 and -0.152) and also larger than those in the row of Environments (-0.195). Similar observation is also made for the latent variables Organization, People, Strategy and Technology. The result indicates that discriminant validity is well established.

5.2.4 Checking Structural Path Significance in Bootstrapping

SmartPLS can generate T-statistics for significance testing of both the inner and outer model, using a procedure called bootstrapping. Bootstrapping is a nonparametric procedure that allows testing the statistical significance of various PLS-SEM results such path coefficients, Cronbach's alpha, HTMT, and R^2 values. In this procedure, a large number of subsamples (e.g., 5000) are taken from the original sample with replacement to give bootstrap standard errors, which in turn gives approximate T-values for significance testing of the structural path. The Bootstrap result approximates the normality of data.

After the bootstrapping procedure is completed, the result of the "Path Coefficients (Mean, STDEV, T-Values)should be cross checked by Check the numbers in the "T-Statistics" column to see if the path coefficients of the inner model are significant or not. Using a two-tailed t-test with a significance level of 5%, the path coefficient will be significant if the T-statistics is larger than 1.96 (Hair, J.F., Hult, G.T.M., 2014). In the result, it can be seen that only the Environment -> KM e-readiness and Organization ->KM e-readiness linkage (0.031 and 0.008) respectively is not significant. This confirms our earlier findings when looking at the PLS-SEM results visually. All other path coefficients in the inner model are statistically significant (see Figure 5.4)

5.2.1.1 T-Statistics of path coefficients (Inner Model)

T-Statistics of Inner Model: PLS-SEM does not assume that the data is normally distributed, which implies that parametric significance tests (e.g., as used in regression analyses) cannot be applied to test whether coefficients such as outer weights, outer loadings and path coefficients are significant. Instead, PLS-SEM relies on a nonparametric bootstrap procedure (Efron and Tibshirani, 1986; Davison and Hinkley, 1997) to test the significance of estimated path coefficients in PLS-SEM. In bootstrapping, subsamples are created with randomly drawn observations from the original set of data (with replacement). The subsample is then used to estimate the PLS path model. This process is repeated until a large number of random subsamples has been created, typically about 5,000.

The parameter estimates (e.g., outer weights, outer loadings and path coefficients) estimated from the subsamples are used to derive standard errors for the estimates. With this information, t-values are calculated to assess each estimate's significance.

Hence by reviewing T-Statistic (As shown in Table 5.5) the researcher enable to decides whether the pass coefficient of the inner model are significant or not using a two-tailed T-test with a significant level of 5%, the path coefficient will be significant if the T-Statistic is larger than 1.96. In this case study it can be seen that only Organization ->KM e-readiness and Environment->KM e-readiness is not significant. This confirms the previous finding. (Environment and organization does not predict e-readiness directly)

Direct and Indirect Variable	**T-Statistics**
Strategy - >KM e-readiness	4.379
Technology ->KM e-readiness	2.271
Organization ->KM e-readiness	0.245
People ->KM e-readiness	5.732
Environment->KM e-readiness	1.004

Table 5.5: T-Statistics of Path Coefficients (Inner Model)

5.2.1.2 T-Statistics of path coefficients (Outer Loading)

T-statistics Outer Loading: as it reviewed for path coefficient for the Inner Model, it can also be explore the outer model by checking the T-Statistics of the Outer Loading since the values for all measurement indicators greater than 1.96 it is highly significant.

	Strategy	Technology	Organization	People	Environment	Knowledge Management e readiness
ST3	17.289					
ST4	25.780					
ST8	38.713					
ST9	12.465					
TC4		14.143				
TC5		19.240				
OR1			7.035			
OR2			7.548			
OR7			7.444			
PP6				13.163		
PP7				32.663		
PP8				16.814		
PP14				27.750		
PP15				35.232		
EN4					22.072	
EN8					20.700	
EN9					18.892	
EN10					21.218	
ER2						47.351
ER3						151.572
ER4						154.686

Table 5.6: T-Statistics of Outer Loadings

5.2.5 Discussion

5.2.5.1 Addressing Statement of the objective:

The main objective behind the study is to assess the Banks's current knowledge management e readiness. And, addressing by prioritizing and identify the weak point so that the bank may exert extra effort on challenging variables before embarking on a KM initiative. The study result supports the above objective. People readiness score 5.732, strategic (4.379), Technology (2.271) Environment (1.004) and Organization (0.245). Based on the result the bank can address and reallocate resourceson the stated issue.

5.2.5.2 Hypothesis

(AlirezaKamanghad, 2009) in his paper about E-Readiness Assessment of wholesale distribution companies for implementing E-CRM (Customer relation management (CRM) saying that people is the factor for E-readiness. The above research also supported by the study as, Hypothesis 4 (H4), People KM E readiness will be a factor for determining the adoption of knowledge management

(Ndou, 2004) represents seven main challenges for e-Government development and implementation in developing countries of which, strategy is the one that challenges e-readiness. This research theories supported by the study find as, Hypothesis 1 (H1), Strategically KM E readiness will be a factor for determining the adoption of knowledge management.

A study by (Abdel Nasser H. Zaied 1, Faraj A. Khairalla and Wael Al-Rashed, 2007) about assessing e-Readiness in the Arab Countries point out that infrastructure/Technology is a variable that can measure KM E readiness. Similarly this theories supported by the study finding as, Hypothesis 2 (H2), Technological Knowledge Management E readiness will be a factor for determining the adoption of knowledge management

A study by (Alemayehumola and Paul S. Licker, 2005) about Perceived E-Readiness Factors in E-Commerce Adoption organizational and environmental characteristics as

determinants of e-commerce adoption and institutionalization. Moreover a study by Amare Ayalew and GetachewHailemariam about Assessment of Ethiopian Health Facilities Readiness for Implementation of Tele medicine reflect Organization readiness took the highest rank for readiness rate, the study finding shows Organization and Environment However the study finding suggests that environment and organization does not predict Knowledge Management e-readiness directly.

Generally: McConnel International 2000 notes that no nation will become "e-Ready" overnight whichever less prepared organizations have an opportunity to learn from the global economy and leap to a higher level of preparedness. In line with the addressed idea the bank readiness level, the coefficient of determination, R^2, is 0.908 for the Knowledge Management e-readiness endogenous latent variable. This means that the five latent variables (Strategy, Technology, Organization, People, and Environment) moderately explain 90.8% of the variance in e readiness for adopting knowledge management system. And if the bank address the mentioned variable, dramatically can achieve benefit that arise from information and communication technologies (ICTs)

	Hypothesis	**Accepted (Yes/No)**
H1	Strategy significantly influence KM E-Readiness	Yes
H2	Technology significantly influence KM E-Readiness	Yes
H3	Organization significantly influence KM E-Readiness	No
H4	People significantly influence KM E-Readiness	Yes
H5	Environment significantly influence KM E-Readiness	No

Table 5.7: Summary of Hypothesis Testing

Chapter six

Conclusion and recommendation

6.1. Conclusion

During the last decade, leaders in government, business, and social organizations around the world have considered how best to harness the power of Information and Communication Technology (ICT) for development. Experts have pointed out that in order for developing countries to put ICT to effective use, they must first be "e-Ready" in terms of ICT infrastructure, the accessibility of ICT to the employee, and the legal and regulatory framework to adopt knowledge management system. Organizations have been urged to use KM E- Readiness assessment to measure and plan for ICT integration, and identify areas where additionaleffort is required. Several KM e- readiness initiatives have been launched to help organization in this area, and numerous e-Readiness assessment tools have been created and used by different groups, each looking at various aspects of ICT, society, and the economy (Bridges.org, 2005).

The purpose of this research is to demonstrate how a Commercial Bank of Ethiopia Top manager can improve their Knowledge management E-Readiness through the eyes of an integrated STOPE framework of Strategy, Technology, Organization, People, and Environment. By collecting data from a survey of the CBE Employees analyzing the subsequent structural equation modeling in SmartPLS, the important factors that lead to knowledge management e readiness are identified.

In this research, top Management when plan towards ICT needs to more focus on Management Involvement, Fund Allocation, future development and adopting advanced technology. Because of having with loadings of 0.829, 0.823, 0.872 and 0.734 respectively, they are good indicators of Strategy. The Top management should not overlook these basic elements of ICT Planning.

Meanwhile, it is also revealed that ICT policies and system Performance with loading of 0.820 and 0.835 are important indicators of state of issue concerned with ICT Facilities and indeed have strong effect (2.279) to Knowledge management Readiness.

Likewise, it is also revealed that placement of non ICT skills in ICT Jobs, Productivity of employee Skills, retaining professional experts, organizational knowledge distribute through ICT and the capacity of ICT to make management decision with loading of 0.812, 0.899, 0.833, 0.898 and 0.922 are important indicators of state of issue concerned with ICT users and Skills and indeed have more strong effect (4.433) to KM Readiness.

Additionally, it is also revealed that practicing basic ICT Business as well as technology Regulation and experience with network-based applications are important indicators of state of issue concerned with ICT Management with loadings of 0.830, 0.844 and 0.816 respectively. Although fulfilling these ICT Managements issues compliment organizational preparedness improvement in these areas does not significantly impact Organizational Readiness due to its weak effect (0.008).moreover access the organizations working procedure, Educational Institution contributing to the quality of ICT, retaining skilled employee and productive and profitable are important indicators of Current non-ICT Issue surrounding and affecting the current state of ICT with loadings of 0.992,0.978,0.946 and 0.975 respectively. Although fulfilling this non-ICT Issue assuring environmental preparedness much effort in these areas does not significantly impact environmental Readiness due to its weak effect (0.031).

It is resulted that, the coefficient of determination, R2, is 90.8% for the KM E-Readiness latent Variables. This means that the five latent variables (Strategy, Technology, Organization, People, and Environment) moderately explain 90.8% of the variance in Knowledge Management E-Readiness. It is an important finding for CBE because it suggests that there are other factors that CBE Top managers should consider when exploring Knowledge management E-readiness in future research.

Generally: The theoretical implication of this research is using the STOPE integrated readiness approach organization can measure their preparedness level before embarking knowledge management system implementation. However the indication of the variable may vary from organization to organization. The Practical approach of the study is organization by measuring their preparedness level can achieve the role of knowledge management for decision making process and develop corporate memory in response to today's knowledge economy.

6.2. Recommendation

The Information Age is increasing the gap between the rich and poor, developed and developing countries and creating a society of information haves and have not. Countries with greater powers of acquisition have easier access to new technologies and take greater advantage of them. Given this situation, it is imperative that developing countries redouble their efforts to prepare themselves to successfully meet the challenge and maximize the opportunities that the Information-Based Economy offers.

KM E-readiness assessment can also be a vital tool for judging the impact of ICT, to replace wild claims about the role of ICT in development with concrete data for comparison. In the eyes of an integrated STOPE framework for e-readiness assessments Commercial bank of Ethiopia is in good condition (Achieving more than 90%) of expected preparedness. This makes the bank becomes in a good position the launch Knowledge management Protect. And indeed it is a high Time to do so.

As the researcher choose STOPE framework , This Approach has been developed and used for the evaluation of different ICT problems, including e-business and information security management (Bakry, 2003), and the emerging enterprise resource planning tools (Bakry, 2005), The commercial bank of Ethiopia can use it for different readiness requirement as needed

Finally, the research calls, for how to comfortably utilizing ICT Improvement project like Core Banking Upgrading, as a standard approach, for practical CBE's real-life E-readiness assessment studies.

6.3. Furtherresearch

As the current study framed around Addis Ababa city, further study must be conducted by addressing regional branches with adding in-depth analysis of multi-collinearity assessment that is each set of exogenous latent variable in the inner model is checked for potential collinearity problem to see if any variable should be eliminated, merged in to obtain more generalizable result.

References

Al-Osaimi K., A. Alheraish,andS.H.Bakry (2006). "An Integrated STOPE Framework for e-Readiness Assessments",TheSaudi 18th National Computer Conference—Information Technology and Sustainable Development, Riyadh,(1)1,pp.19–29.

Alshawi, M (2007). Rethinking IT in Construction and Engineering: Organizational Readiness, Taylor and Francis, UK. APEC (2000), E-Commerce readiness assessment guide, Asia-Pacific Economic Cooperation (APEC) Readiness Initiative, Electronic Commerce Steering Group. AT Kerney (2006), the Globalization Index, AT Kerney, November/December 2006, 52-81.

Bakry, S. H., Khalid A., &Abdulmohsen, A. (2007). STOPE-based Approach for e-Readiness Assessment Case Studies: Department of Electrical Engineering, King Saud University, Riyad, Saudi Arabia. International Journal of Network Management, 18: 65–75.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. Journal of the Academy of Marketing Science, 16(1), 74–94.

Becker, J. M., Rai, A., Ringle, C. M. &Völckner, F. (2013). Discovering unobserved heterogeneity in structural equation models to avert validity threats.

Berggren, C., Bergek, A., Bengtsson, L., Hobday, M. and Söderlund, J. (2011). Knowledge integration & innovation: Critical Challenges Facing International Technology-Based Firms. London: Oxford University Press.

Bakry S. H. (2004). "Development of e-Government: A STOPE view", International Journal of Network Management, vol.14 No.5, pp. 339-350.

Bakry S. H. (2004), Bakry A. H. (2005), "Enterprise resource planning: a review and a STOPE view", International Journal of Network Management, vol. 15, 2005, pp. 363-370.

Bridges.org (2001). “Comparison of E-Readiness Assessment Models”, bridges.org, Available at www.cspp.org

Bui, T. X., Sankaran, S., & Se bastian, I. M. (2003). A framework for measuring national E-readiness. International l Journal l of Electronic Business, 1, 3–22. Center for International Development at Harvard University (CID). (2000).Readiness for the Networked World, A Guide for Developing Countries.

Center for International Development at Harvard University (CID). (2000). Readiness for the Networked World, A Guide for Developing Countries

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Macrolides (Ed.), Modern methods for business research (295–336). Mahwah, New Jersey: Lawrence Erlbaum Associates.

CID (2007). Readiness for the Networked World a Guide for Developing Countries, Information Technologies Group, Center for International Development (CID), Harvard University, USA

Diamantopoulos, A., Sarstedt, M. Fuchs, C., Kaiser, S., &Wilczynski, P. (2012). Guidelines for choosing between multi-item and single-item scales for construct measurement: A predictive validity perspective. Journal of the Academy of Marketing Science, 40, 434–449.

Fornell, C., &Larcker, D.F. (1981). Evaluating structural equation models with Unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50.

Hassan Alaaraj*, Fatimah Wati Ibrahim (2014), an Overview and Classification of E-Readiness Assessment Models, International Journal of Scientific and Research Publications, Volume 4, Issue 12, December 2014

Kaur, K., &Abas, Z. (2004). An Assessment of e-Learning Readiness. The Open U University Malaysia. International Conference on Computers in Education, Melbourne, Australia.

K. Ruikar, C.J.Anumba, P.M. Carrillo. VERDICT (2006). An e-readiness assessment application for Construction companies, Automation in Construction, 15, 98 – 110.

Kirkman, G.S.,C.A.Osorio&J.D.Sachs, (2001). The networked readiness index: measuring the prepared ness of nations for the networked world; center for international Development, Harvard University, Cambridge, MA.

Kirkman, G. S., Osorio, C. A., & Sachs, J. D. (2002). The networked readiness index: Measuring the Preparedness of nations for the networked world. Cambridge, MA: Center for International Development (CID), Harvard University.

Lohmöller, J.B. (1989). Latent variable path modeling with partial least squares. Heidelberg, Germany

Mutula, S. M., & van Brake l, P. (2006).An evaluation of e-readiness assessment tools with respect to Information access: Towards an integrated information rich tool. International Journal of Information Management, 26, 212–223.

McConnell International with World ITand Services Alliance (WITSA), (2000). RiskE-business: seizing the opportunity of global e-readiness

Sanghani, P (2009) Knowledge Management Implementation: Holistic Framework Based On Indian Study, Pacific Asia Conference on Information Systems (Pacis), Pacis 2009. Proceedings Association for Information Systems Year 2009.

Scarborough, H, Swan, J and Preston, J (1999) Knowledge management: a literature review, Issues in People Management, Institute of Personnel and Development, London.

Siemieniuch, C E and Sinclair, M A (2004) A framework for organizational readiness for knowledge management, International of Operations and production Management, 24(1), 79-98.

Zaied A N H, Khairalla F A and Al-Rashid W (2007) "Assessing e-Readiness in the Arab Countries: Perceptions TowardsICT Environment in Public Organizations in

the State of Kuwait" The Electronic Journal of e-Government Volume 5 Issue 1, pp 77 - 86, available online at www.ejeg.com

Annexes

Annex I: Research Questionnaires

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE SCIENCES

Appendix 1: Questionnaires

This survey is being conducted by researcher at Addis Ababa University: College of Natural Sciences: School of Information Science Submitted in Partial Fulfillment of the Requirements for the degree of Master of Science in Information Science.

The Study is an attempt to assess the knowledge management E-readiness of commercial bank of Ethiopia (CBE), in order to gauge a company's appetite for the work involved before implementing the knowledge management system (KMS).

The questionnaires is framed and directed towards Strategy, Technology, Organization, People, and Environment point of view to assess knowledge management Preparedness in the bank. Bear in mind, as with the interest of Knowledge management readiness surveys, your response to this survey is greatly valued and much appreciated.

Remember that, there is no right or wrong answer as long as you did it honestly. Rest assured that your answer to this survey-questionnaire will be treated with the utmost

confidentiality. You will not be individually identified or recognized, instead, your responses will be analyzed for academic and statistical purposes only.

Thank you for your kind cooperation in conduct of the study. Your response indeed contributing to determine the Critical Success Factors of Knowledge Management before embarking on actual implementation.

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Part 1: Demography: Tick (√) the appropriate Agreement Level on the corresponding Column

- ✓ Gender:

Male	**Female**

- ✓ Age Group:

< 25	**25 up to 35**	**36 up to 45**	**> 45**

- ✓ Educational Level:

Diploma	**Degree**	**Master's Degree**	**Above**

- ✓ Work Experience:

< 5	**5 up to 10**	**11 up to 20**	**> 20**

- ✓ Place of Work:

Branch	**Strategy**	**IS**	**Marketing**	**HR**	**Finance**

Part 2: Tick (√) the appropriate agreement level on the corresponding Column

2.1 The Following Items are intended to Measures CBE's "Direction, commitment and plan towards ICT Development and utilization"

No	2.1 Strategy	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
ST1	CBE's mission and vision statement and, core purpose of the process, support the developmentof ICT					
ST2	CBE's have a clear definition of ICT policy					
ST3	Myorganizationis committed in the development of allocating fund and managing asset in a manner that support technology development					
ST4	My organization Top management involves in the Development of Information technology					
ST5	My organization implement strategic plan related to ICT Provisioning**/**supply and support					
ST6	CBE's ICT-HR strategy related to hiring experienced and professional experts strength the efficiency of the employee.					
ST7	CBE's Human Resource implement strategy for ICT Awareness, education and Training to familiarize employee with the implemented system					
ST8	My organization have future development plan and respond towards the dynamic ICT advancement					
ST9	In order to utilize Knowledge management, The administrative organs are willing to accept additional responsibility for adopting advanced technology					

ST10	My Organization following and funding projects to accomplished in line with the schedule					

2.2The Following Items are intended to Measures CBE's"Current state of issue concerned with ICT Facilities"

No	2.2 Technology	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
TC1	My organization Deliver sufficient collection of hard ware, software, and Network to support information technology services.					
TC2	CBE implementing ICT E-Service Infrastructure to facilitate E-Payment , like Mobile & Internet Banking					
TC3	In my organization, there is an ICT Support and Maintenance which insure smooth business operation					
TC4	My organization follow ICT standards and policies					
TC5	My organizationMonitor system Performance through system Updating and Upgrading.					
TC6	My organization implement core banking system to facilitate E-payment					
TC7	My organization deploy Disaster recovery and Data Center infrastructure solution					
TC8	My organization have access to wireless connection					
TC9	My organization implement Portals, Webs, and intranet to smooth internal communication					

TC10	My organizationDeveloping enterprise information technology architecture that can respond to changing business condition.					

2.3The Following Items are intended to Measures CBE's"Current state of issue concerned with ICT Regulation and Management"

No	2.3 Organization	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
OR1	My Organization practicing basic ICT technology Regulation like adaption of ICT technical standards.					
OR2	My organizationexperiencing of ICT Business regulation (Like, charging, Foreign investment) to maximize competitive advantage					
OR3	My organization employee have sufficient experience with network-based applications					
OR4	CBEextend business growth by innovating newe-payment products to achieve business continuity					
OR5	My organization maintain Internet service regulation, like implementing Domain name system, server naming system					
OR6	My organization get competitive advantage by implementing e-payment and ICT infrastructure					
OR7	My organization implement a policy that encourage e-payment initiatives.					

OR8	The organization's core banking system is flexible to integrate with e-payment improvement					
OR9	With the realistic assessment of strength and weakness my organization monitoring & Addressing issues in connection with ICT challenges					
OR10	My organization builds strong organizational leadership to enhance ICT Management.					

2.4The Following Items are intended to Measures CBE's"Current state of issue concerned with ICT users and Skills"

No	2.4People	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
PP1	My Organization employee have ICT Awareness					
PP2	My Organization employee adapt and respond to ICT Change					
PP3	My organization establish user roles & responsibilities					
PP4	My organization Hire experts based on Qualification					
PP5	My organization deal with placement of ICT expert in ICT Jobs					
PP6	My organization deal with placement of non ICT skills in ICT Jobs					
PP7	My organization make an effort in Productivity of employee Skills					
PP8	My organization retaining professional experts					
PP9	My organization organize training and education					
PP10	Employees have an open communications					

PP11	CBE as Organization prefer ICT to improve the shortage of knowledge exchange					
PP12	I have better level of trust with my organization					
PP13	I am willing to exchange organizational knowledge through electronic media					
PP14	I will be more motivate if organizational knowledge distribute through ICT					
PP15	The capacity of ICT is adequate to make management decision					

2.5 The Following Items are intended to Measures CBE's "Current non-ICT Issue surrounding and affectingthe current state of ICT"

No	2.5 Environment	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
EN1	The working culture of the bank like beliefs, value which govern how people behave in the bank promote ICT utilization.					
EN2	My organization involve in Research and Development to investigate business and improve the existing as well as new product.					
EN3	My organization deal with local and international organization to mobilize Resource and Economy					
EN4	I can easily understood and access the organizations working procedure whenever necessary.					
EN5	Events that takes place outside of the organization like political factors, change to the economy and governmental regulation affect my organization					

EN6	I believe there are effective lows to protect customer privacy and confidentiality					
EN7	I believe Ethio-Telecom deliver affordable service to facilitate banking E-Payment activities					
EN8	Educational Institution contributing to the quality of ICT by developing fruitful Professional society					
EN9	My organization is working on retaining skilled employee to safeguard corporate memory					
EN10	I believe my organization is productive and profitable					

2.6 The Following Items are intended to Measures CBE's "Current issue concerned withKnowledge management E-Readiness

No	2.6 KM E-Readiness	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
ER1	My Organization adopt **Shared Knowledge** to minimize organizational knowledge not to be individualistic by Maximize knowledge Impersonal					
ER2	CBE has a long experience of **Employee Interaction** to utilizing knowledge sharing among employee					
ER3	My Organization encourage **Motivated Worker** using intensive and Gob Promotion					
ER4	There is business procedures and policies of CBE based on defined responsibilities and duties of its employees to apply **Organizational Infrastructure**					

ER5	My organization believe in **Employee Involvement** by adopting structures and processes that allow employees to systematically give their input into decisions that affect their own work					

Thank you for your unreserved co-operation

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Annex I I: CBE Internal vacancy

COMMERCIAL BANK OF ETHIOPIA
BAHIR DAR DISTRICT
MANAGERIAL & CLERICAL VACANCY ANNOUNCEMENT

To: All Clerical Employees

Vacancy circular number BDD/HR/TA/050/2017 **Date: June 02, 2017**

We would like to announce the following posts to those qualified & interested employees to submit a written application to **Manager-HR Business Bahir Dar District on or before June 11, 2017.**

Every applicant is required to include the following information in his/her application:-

1. Full Name, including grandfather's Name;
2. Detail work experience in the Bank;
3. Educational Qualification;
4. Present place of Assignment;
5. His/Her ID Number
6. Recommendation of Line Manager and
7. Mobile No

1. Senior Customer Service Officer –Cash Branch IV (Job Grade-11)	
Place of the vacant post	***Bahir Dar Branch***
Requirement	✓ B.A. Degree in Management or Marketing or Economics or Accounting or business-related field. ✓ Five years of banking experience of which one year as SCSO- I or Senior Branch Controller-I.
Competency	✓ Ability to work in team ✓ Ability to manage works (self reliant) ✓ Strong personal commitment to learn the particular skill ✓ Good interpersonal skills i.e. courteous and good communication skill ✓ Responsiveness to change ✓ Acting with integrity ✓ Flexible and adapt to new business need ✓ Demonstrative commitment to the CBE Mission, Vision and Values ✓ Comply with the Banks' Code of Ethics ✓ Knowledge of basic Computer applications ✓ Certified in the banking applications software ✓ Knowledge of bank accounting and CATS procedures

DECLARATION

x

I declare that this thesis was composed by myself, that the work contained herein is my own except where explicitly stated otherwise in the text, and that this work has not been submitted for any other degree or processional qualification except as specified

_____ _____

BiniyamZewdu Date

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

_____ _____

Advisor Date

GetachewHailemariam (PhD)