St. MARY's UNIVERSITY
SCHOOL OF GRADUATE STUDIES

OPPORTUNITIES AND CHALLENGES OF ELECTRONIC BANKING SERVICE RENDERING THE CASE OF COMMERCIAL BANK OF ETHIOPIA

BY;

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DAWIT TESFAYE

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Declaration of Originality

I hereby declare that this submission is my own work towards the Masters of Business Administration prepared under the guidance of Elias Nour (PhD) and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the university, except where due Acknowledgment has been made in the text.

Dawit Tesfaye ……..

SGS/0013/2006 **Signature**

ENDORSEMENT

This thesis has been submitted to St. Mary's University School of Graduate Studies for examination with my approval as university advisor.

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Advisor Signature

St. Mary's University, Addis Ababa

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CHAPTER ONE

INTRODUCTION

1.1.Background of the Study

Computers have revolutionized the way we live, do business, interact, work, establish relationships and communicate among each other, as well as affect how we create, process, store and disseminate knowledge. Its rather safe to state that with the advent of ICT in the late 20th century along with the subsequent introduction of the world wide web in 1989, humanity has entered a new era in which the daily activities of each and every one of us is in one way or the other interrelated to and or affected by the world of artificial intelligence (Al Khouri, 2014)

One of the cornerstones of society is business. Each and every individual on the globe in one way or the other is involved in the business sector. Business is an inalienable activity from human civilization. Evidence shows that the launch of electronic banking and electronic payment systems backed by the internet, has visibly and positively affected the world of business (Narthe, 2012).

Financial institutions, banks in particular have been in the frontline of the introduction, diffusion and popularization of electronic payment systems. Governments of all corners of the world have also showed enthusiasm for the sector. They have given utmost importance to its development. Policy makers, influential and powerful international organizations have contributed to the sector by crafting laws directed towards the regulation, development and protection of the electronic banking service provision and regulation, along with other structural supports being extended to implementers (Abor, 2004).

Abor (2004) states that, the world has witnessed an upsurge of electronic payment instruments meant to facilitate trade and simplify payments. Further, Wahab (2010) also argues citing a report by the Bank for International Settlement issued in 1998 that for many years, bankers, technology specialists and entrepreneur among others have advocated for the replacement of physical cash and the introduction of more flexible, environment friendly, secured efficient and cost effective payment solutions.

A country's payment system is what makes its real and financial market work. When commodities are exchanged for cash, check, debit card or credit card payments, trade expands as transaction costs fall and production specialization increases (Humphrey, Lawrance Pulley, Jukka ,Vesala, 1996). Electronic payment has been designed to help individual customers and companies as well as the banks in eliminating or reducing some of the problems inherent to the settlement of the payment process by allowing customers to pay their bills without having to actually move to the bank's premises.

The social cost of a country's payment system which is between 2 to 3 percent of the GDP, can be reduced by promoting the shift to electronics *(*Humphrey et al, 1996). In this ever changing world, payment systems have been undergoing transformation from paper to electronic means (Al-Khouri, 2014*).*According to the same scholar electronic payments refer to any kind of non-cash payment that do not involve a paper element (Al-Khouri, 2014*).* Furthermore Al-Khouri adds that the advent of computers and electronic communication has led to the conversion of tangible (physical) payment methods into intangible (virtual) forms of money referred to as digital (Electronic) cash money *(*Al-Khouri, 2014*).*

As per Hord (2005) a s cited by Al-Khouri (2014) in general, methods and types of electronic payments include credit cards, debit cards, and ACH systems. Narthe (2012) further asserts that as a result of its perceived benefits and deservingly, e-banking has attracted a considerable amount of scholarly attention. Further elaborating (Ibrahim, Joseph, and Ibeh, 2006) as cited by Narteh (2012) state that most studies have been primarily focused on electronic service quality and factors affecting the adoption of internet banking by customers rather than focusing on investigating the amount to which the service renderers have benefited from giving the service, especially in LDC's.

Narteh (2012) also adds by citing (Erikson, Robert, Goldthorpe, Jackson, Yaish, and Cox, 2005); that the prospects and challenges of e-banking realizing have been affected by impediments and the levels have not matched provider expectations. Because of that Narthe (2012) concludes that scholars have recently begun to focus on the barriers of e-banking adoption. As in many other fields, the west has surely been the trailblazer in the electronic banking sector development and service rendering. Emulation in less developed countries such as the African and Asian continents has been hindered by many difficulties.

Lack of proper understanding of the strategic importance of electronic banking to development, lack of adequate infrastructure in the form of reliable internet service provision, frequent service power shortages, high initial investment required, R&D costs and shortage of ICT skilled professionals in the field of e-banking and e-payment systems can all be mentioned as the detractors.

Consumers of products and services have become highly informed, demanding and with much more bargaining power than ever before. Companies have also become more prepared, dynamic and competitive than ever before. The world of service providers and technology suppliers is a merciless, relentless competitive jungle that leaves no room for mistakes and even less for stagnation. Innovativeness and technology remain the key to success.

Banks, internet providers, policy makers, regulators, and tech companies in a joint effort towards harvesting the benefits of electronic banking in the west, have coordinated their efforts with the aim of effectively implementing, regulating, and harvesting the economic

Electronic banking has had a big contribution to the local economy in the USA and EU member countries by jumpstarting a vibrant almost cashless economy, further adding to wealth and facilitating business transactions along with increasing customer's satisfaction. With electronic banking business can be done anywhere, anytime. Money truly never rests. Unfortunately the adoption of e-banking has not been so smooth in the so called LDC's. Especially in the African continent. Ethiopia is no exception. Although the mere fact that electronic banking has been introduced in our country is a positive start, successful implementation and diffusion has been linked with many defects and problematic features.

Our case study the Commercial Bank of Ethiopia is a giant government corporation established back in 1942 with a proclamation issued in August 1942 as a state Bank. Operational activities were commenced shortly after on the 15th of April 1943 with two branches and 43 staff members. It historically served both as Ethiopia's central bank with the power to issue bank notes and coins as the agent of the Ministry of Finance, and as the principal commercial bank in the country (www.combank.et). Recently after various restructurings that the CBE went through like many other government corporations, the aim of the current management has been linked to modernization, branch expansion and e-banking

introduction and diffusion. All in the struggle to achieving the vision of becoming a world class bank by 2025 (www.combank.et). Accordingly the bank has introduced and implemented different kinds of electronic banking service choices to the broad customer base.

In this regard Narteh (2012), by referring to Sayar and Wolfe (2007) asserts that scholars have found that implementation of e-banking has been more successful in other parts of the world than in Africa. Ethiopia is an example of a typical LDC country where electronic banking is a rather new introduction. Literature gives weight to the strategic importance of electronic banking in facilitating and enhancing business transactions and positively affecting the economy in general. Electronic banking deserves to be taken seriously. The importance of the topic, along with the limited amount of related literature from scholars of the field and corporate bodies in the Ethiopian context were the primary motivators for undertaking this research: Challenges and opportunities to e-banking service rendering, case of the Commercial Bank of Ethiopia.

1.2. Statement of the problem

Electronic banking is a service provision that has a broad spectrum of sub-services under its umbrella. Electronic banking is the provision of banking services through non -traditional means (Daniel, 1999). E-banking is the name given to the banking services rendered through SMS banking, mobile (m-banking), Automated Teller Machines (ATMs), telephone banking, personal computer banking, internet banking and electronic cheque clearing systems (Abor, 2004). Electronic banking in Ethiopia is a relatively new product/service that experts associate with huge potential for growth. The service is believed to have the potential of spring boarding the creation of many more sub-services that can lead to higher profit margins levels and customer satisfaction, along with giving competitive advantage to implementers.

Scholars and experts agree that understanding the intrinsic value that the service provision has for financial institutions has been associated with propelling the success of many banks towards obtaining the winning formula in todays but also tomorrow's competitive market. It has a unique futuristic element to it. Traditional ways of living in general, and of undertaking business in particular, have come under stress for change in the

21st century. The world's integration thanks to the internet, faster transportation and the Globalization phenomena has had a tremendous impact on our way of life and on our business dealings. In other words, today's news and innovation can quickly become obsolete in a matter of a short period of time (Narteh,2012)

These services are aimed at giving the bank the strategic advantage it needs to maintain the leadership gap it holds over the Ethiopian financial market. With over 10 million account holders the bank has the biggest market share and aims at further adding to the customer's number and satisfaction along with harvesting higher returns by utilizing the electronic banking service provision. So far, although the e-banking service provision launch has showed to be promising, plagues of different kinds and challenges have negatively hindered its diffusion and growth.

These challenges are possibly related to the low level of internet service penetration which is closely related with e-commerce service, along with the high initial cost both from users side and the banks side to obtain the high tech hardware and software needed for the e- banking service use, added to of course to the lack of awareness and understanding from customers which in turn has created a perceived security risk associated with the service usage.

Nonetheless the bank has made different attempts to jointly collaborate with stakeholders such as the Internet service provider and the power provider in an effort aimed at increasing the availability and reliability of internet and electricity which are the cornerstones for e-banking service rendering. The results have been quite unsatisfactory so far. The bank has also tried to address the security risk perception of the banks customers through the media and other marketing strategies. Although these efforts were good enough to minimally increase the number of e-banking services subscribers, the bank is far away from ideally servicing the 10 million plus account holders. This research aims at assessing and identifying the causes that have deterred the banks performance when it comes to electronic banking service provision.

Electronic banking service rendering at the CBE has not been free of challenges and hurdles that have had a serious negative impact in the project's success. These challenges have had negative repercussions on the banks performance when it comes to e-banking

service rendering. The bank has not fully capitalized upon the opportunities of electronic banking service provision.

1.3. Basic Research Questions

- What are the challenges to the Commercial Bank of Ethiopia's e-banking service provision?
- What are the opportunities created by e-banking service provision to the CBE?

1.4. Objectives of the study

This study aims at identifying what the major challenges to the successful electronic banking service implementation at the Commercial Bank of Ethiopia. After assessing and evaluating the activities undertaken by the bank in the e-banking service rendering department, the study aims at individualizing the challenges and opportunities along with coming up with suggestions on ways that will help minimize the effect of the threats along with suggesting ways on how to harvest the opportunities better.

1.4.1. General objectives

- The general objective of this study is to assess the challenges and opportunities to electronic banking service rendering at the Commercial Bank of Ethiopia.

1.4.2. Specific objectives

- Assessing the challenges that are incumbent on e-banking activities rendered by the CBE
- Identifying the opportunities that e-banking services rendering brings to the CBE

1.5. Scope of the study

The scope of this study is limited to assessing the challenges to the electronic banking service rendering, alongside with unveiling possible opportunities. The epicenter of the

research is the e- payment process department of the Commercial Bank of Ethiopia under the head office, located in Addis Ababa city, Kera, under the head office.

1.6.Significance of the study

This study intends to:

- Point out the value of the electronic banking service rendering to the society at large
- Coming up with recommendations that would help management achieve strategic objectives by correctly directing efforts in the effective and efficient implementation of the e-banking service by fully harvesting the related benefits.
- This research can serve scholars as base for further future investigations on the subject matter.

CHAPTER TWO

REVIEW OF RELATED LITRATURE

2.1. Conceptual definition of electronic banking

Electronic banking is a name given to a broad range of services provided electronically by banks that can be rendered through the utilization of several non-internet and internet based means. Literature points out that there is a great amount of confusion on the definition of what electronic banking is and what kind of services are to be included in the category and what not. Before engaging in analyzing the broad spectrum of literature available on this exciting and emerging field the initial attempt will be familiarizing the reader with what electronic banking means and what subservices under the umbrella of this scheme exist.

Electronic banking is the conduct of conventional banking practices through unconventional electronic means which involves the use of information communication technology to drive banking business for immediate and future goals, Daniel (1999). Abaenewe, Zeph Chibueze., Ogbulu, Maxwell, Ndugbu, Osondu (2013) by referring to the Basel Committee on banking supervision (1998) define e-banking as the provision of banking services to customers through internet technology. Some criticize this definition as narrow and shallow, this is why other authors state that electronic banking is defined to include the provision of retail and small value banking products and services through electronic channels as well as a large value electronic payment and other wholesale banking services delivered electronically. As per Yang, cited by Khrewesh (2011) e-banking holds yet another meaning with an additional layer or dimension that includes the "the use of a computer to retrieve and process banking data (statements, transaction details, etc.) and to initiate transactions (payments, transfers, requests for services, etc.) directly with a bank or other financial services provider remotely via a telecommunications network". In light of the confusion & lack of unanimity among scholars and practitioners over one generally accepted definition it is important to thoroughly understand & clarify the conceptual cloud surrounding the e-banking terminology.

For Alsmadi and Alwabel (2011) the definition of electronic banking varies among researchers partially because electronic banking refers to several types of services through which bank customers can request information and carry out banking services. In recent times, electronic banking has spread rapidly all over the globe. According to Onay, Ozsoz, and Helvacioglu (2008) the increased adoption and penetration of the internet has recently redefined the playground for banking service providers. Implying that, because of the emergence of e-banking banks were forced to quickly modify the way they undertake business and catchup with the irresistible current of modernization and change that the dynamic industry requires to stay ahead and compete.

Although electronic banking is the name given to an umbrella that shelters a wide range of services only the advent of the World Wide Web has made it possible for electronic banking to become such an integral part of every day's life and of the way people interact and do business. Thanks to the internet and network connectivity, many electronic banking services are given through various gadgets nonstop, twenty four hours a day, seven days a week and 365 days a year. Technological advancements and more and more complex and faster internet connections has enabled banks to put in place an unmanned army comprised by high tech equipment that has managed to decrease error, cost, fatigue etc. that could be incurred by the human element. Throughout the study Internet banking will be given special attention because it remains as the backbone of the electronic banking services rendered by the subject of the study the Commercial Bank of Ethiopia (CBE).

According to the Basel Committee Report on Banking Supervision (1998) internet banking services is the provision of various banking products and services like bank account management, electronic bill payment and financial advice over the Internet. Making use of Internet banking requires consumers to log on to the bank's web page by using web browser with the actual software that resides on the bank's server (Bernstel, 2000). Unlike "personal computer banking" whereby customers are required to fill in details offline before sending over the bank's private network, Internet banking does not require users to access to the banks private network (Bernstel, 2000). Internet banking has been found successful in reducing the operational expenses by allowing customers to access directly to their banking

transactions without the need to visit to physical branches (Liu, 2008).Large banks that spend large sums of money in running physical branches tend to enjoy the largest benefits to adopt Internet banking services (Liu, 2008). Internet banking also radically transforms the business models of the financial institutions (Liu, 2008). Llevwellyn, (1997) further discusses that the emergence of Internet banking has changed the way financial institutions conduct their business in several main areas such as distribution, production, payment and trading. Llevwellyn (1997) further ads also that banks that offer Internet banking services have become serious competitors to traditional banks, which rely more on their interpersonal interactions, especially in cities. With the benefits of fast and simple and trouble-free application processes, minimal technical errors, a wide range of funding options and minimal account deposit requirements, electronic banking has been demonstrated as highly successful in generating higher consumer satisfaction (Methlie, 1998). Literature seems to agree on the intrinsic and strategic value of the service rendered by banks electronically, supported by the internet. Internet banking relies heavily on information technology and the Internet to provide services to its stakeholders such as account holders, debtors, employees etc. (Pyun, Scruggs, & Nam, 2002; Scott & Walsham, 1999; Siaw & Yu,
2004).

The last three or four decades have been perhaps arguably the most dynamic in the history of mankind. Change has been fostered by information technology, changing employee demographics, performance gaps, government regulations, and global economic competition. The success or survival of online companies and those who are becoming online companies based on the need to adapt and change depends on their ability to adapt to rapid external and internal changes. Overcoming resistance to change promotes organizational effectiveness (Cooper & Wolfe, 2005; Coté & Morgan, 2002). Organizational development techniques help people adapt to change. Strategic planning involves many steps. The process starts off by defining goals, the scope of the products and services, assessing the internal resources and the external environment, analyzing the internal arrangements, assessing competitive advantage, developing a competitive strategy communicating the strategy to stakeholders , implementing the strategy and finally, evaluating the outcome. (Robins & Coulter, 2005; Rosenfeld & Morville, 2002)

The focus of the study the CBE, in a keen effort to capitalize upon the advent of information technology development, has been in the forefront of innovativeness and new technology introduction in the Ethiopian context. In this effort numerous new e-banking services were introduced by sustaining a high financial cost.

2.2. E-Banking in the African and Ethiopian context

In the Ethiopian context, most if not all banks are making greater use of e-banking facilities to provide better services in order to excel in the competitive and ever growing banking sector.

The spread of e-banking has greatly benefited the ordinary customer in general and the corporate world in particular. Consequently, electronic banking has been a priority on the agenda of many Ethiopian banks. These banks have been increasingly dependent on the deployment of information and communications technology. Customers' insatiable appetite for efficient services has compelled financial institutions to fast track to a more radical transformation of their business systems and models for embracing e-banking. E- Banking appeal as well as its product development is rapidly growing, and the warm acceptance has strongly encouraged its penetration. The success of e-banking is contingent upon reliable and adequate data communication infrastructure. Therefore, it is efficient for banks to invest in online transactions through the creation of networks. However, there has been a mix up between electronic banking and internet banking. The fact is that internet banking is subsumed to electronic banking, and not the other way around.

Banking service provision in just a handful of years has come a long way from the time of ledger cards and other manual filing systems. Most banks today have electronic systems to handle their daily voluminous tasks of information retrieval, storage and processing. Irrespective of whether they are automated or not, banks by their nature are continually involved in all forms of information management on a continuous basis. The computer is of course an established tool for achieving a competitive edge and optimal resource allocation.

Ethiopia with a population size of 90 million that can all be potentially transformed into banking service subscribers, has a huge potential. With this in mind, the banking service is clearly endowed with excellent growth potential prospects. Electronic banking might be the key to becoming successful in this lucrative and growing sector. Although the e-banking service has been offered in the west for the past few decades, like everything else, hindered by many deep-rooted problems and complications it arrived in Africa very late. The first African nations to harvest the benefits of this technology were the West African countries such as Nigeria, Senegal, Ivory Coast and other African nations like Egypt and South Africa. Many African scholars mainly from Nigeria and the rest of the West African block where the technology has penetrated earlier thanks to better infrastructure and a more vibrant economic environment have undertaken effortful studies to understand the relationship between e-banking and increased customer satisfaction, e-banking and improved ROE, e-banking and improved ROA etc. This studies were important first steps in the difficult task of coming up with data that unveils the truth behind the importance of the e-banking service rendering to the overall improvement of the bank's economic health.

According to Abanawe et al (2013) as a result of increased penetration of electronic banking which has redefined the banking operations in Nigeria and around the world. The study revealed that the adoption of electronic banking has positively and significantly improved the returns on equity (ROE) of Nigerian banks. On the other hand and on the contrary, it also revealed that e-banking has not significantly improved the returns on assets (ROA) of Nigerian banks.

2.3. Electronic banking in developing nations

Most of Ethiopian banks have adopted new and innovative ways to improve service delivery in a bid to combat competition. One significant means of achieving competitive advantage has been the adoption of e-banking services. The earliest forms of ICT technology employed by Ethiopian banks were mainly office automation devices such as telephones, telex and the facsimile. For many years these remained the main technologies utilized in transacting bank business (Abor, 2004), until later in the 1980s when the personal computer (PC) gained popularity.

Arguably, the most revolutionary electronic banking innovation in this country and the world over has been the Automated Teller Machine (ATM) and the numerous electronic cards. Currently, in addition to ATMs, most of the banks have implemented internet banking, telephone banking, and SMS alerts among others to deploy banking services to the customers. Anecdotal evidence however, indicates that the adoption of these electronic services is below expectation in Ethiopia thereby calling for a need to investigate the challenges affecting customer adoption of e-banking services. Even if there is a large amount of studies investigating the challenges of adopting e-banking services globally and in the African context, a closer search through the literature indicates that prior studies have investigated more intensively on the economic return aspects rather than the challenges and opportunities that derive from the e-banking service rendering. This study aims at providing a broader conceptual insight and lay a framework for investigating challenges banks face in effectively implementing e-banking services in developing a developing country such as Ethiopia. The study uses qualitative method that seems more indicated to dissect and analyze the institutional based challenges as well as user- based challenges and opportunities that affect the e-banking products in Ethiopia related to the CBE.

New Information technology has taken an important place in the future development of financial services, especially banking sector transition are affected more than any other financial provider groups. Increased use of mobile services and use of internet as a new distribution channel for banking transactions and international trading requires more attention towards e-banking security against fraudulent activities. The development and the increasing progress that is being experienced in the Information and Communication Technology have brought about a lot of changes in almost all aspects of life. In the Banking Industry, it has been in the form of online banking, which is now replacing the traditional banking practice. Online banking has a lot of benefits which add value to customers' satisfaction in terms of better quality of service offerings and at the same time enable the banks gain more competitive advantage over other competitors.

The banking industry plays a significant role in supporting economic development through efficient financial services (Salehi and Azary, 2008). Ethiopian banks have embraced innovative banking technologies and e-banking services in recent years. Almost all banks have invested in expanding and improving the Information. Technology systems and a number of new e-

banking services have been developed. Almost all of the nineteen state and private owned banks operating in Ethiopia have declared e-business as one of the core strategies for their future development and goal achievements. At the same time, e-banking acceptance depends probably on bank service quality, customer preferences and satisfaction. Security, user friendliness, queue management, accessibility, time factor and fund transfer are major factors influencing e-banking service acceptance of the customers. Many individuals agree that by principle e- banking is convenient and flexible way of banking and it also has various transaction related benefits. On the consumer based factors, the results of previous studies indicate support for a five factor structure as the critical factors for e-banking adoption. These factors are the perceived usefulness of e-banking, socio- cultural factors, cost of ICT devices, perceived ease of use, and ICT knowledge base of the customers. The findings support the multiple factor dimensions as critical for e-banking adoption.

On perceived usefulness, the results of previous studies indicate that consumers perceive e-banking to be very useful as e-banking enhanced the execution of their daily banking duties in addition to helping them save on cost and time. Therefore customer attitude performs a mediating role between perceived usefulness and the adaptation of e-banking services. Considering the fact that many of the respondents were salaried employees and students who had busy life styles, e- banking provides real benefits over the traditional banking hall experience. Other results also indicates that e-banking must be compatible with the socio cultural environment of the customers in order to make it acceptable and usable to them. It is a known fact that most Ethiopians prefer to handle physical cash because most transactions are effected through cash payments. Attempts at ensuring a cashless society by introducing electronic payments are met with initial resistance.

The use of credit cards is absent and debit cards in the country for payments are also at an embryonic stage. Most sales points especially at the informal levels accept strictly cash. Sometimes, even cheques are viewed with suspicion. There is a general lack of trust among Ethiopians with regard to electronic payments. This distrust derives from lack of awareness and acquaintance with technology. Thus socio- cultural issues with regard to payments impede the adoption of e-banking innovation. This is consistent with the studies of Tan and Teo (2000) on

the adoption of electronic banking services. Further other studies have suggested that customers perceived e-banking services as easy to use. Respondents agreed on a number of issues relating to the ease of use of e-banking. They confirmed that they used a number of e-banking services and agreed that ATMs were easy to use. Consumers hinted at the fact that e-banking services were not difficult to understand, learn or operate. The results also showed that the consumers generally had enough information on e-banking and all its benefits and could easily become skillful at using e-banking products. This enforces the views of Pikkarainen T, Pikkarainen, K., Karjaluoto, & Pahnila (2004) who concur that perceived ease of use influences consumer's e-banking adoption. This is definitely good to hear because it can help the threat of "users perceived difficulty of e-banking use".

Yet another study by Kolodinsky, Hogarth & Hilgert (2004) also found that users level of education and ICT knowledge impacts their acceptance or otherwise of e-banking services. A number of consumers of e-banking services are reported to be ICT literate and they use e-banking in their everyday transactions. This is thought to bring ease of usage. The fact that this young adults who have graduate and post graduate degrees and with a fair amount of ICT knowledge makes them one of those that are more likely to use e-banking services. This however does not come as a surprise since the majority of such persons are probably young adults with good economic background and high level of acquaintance with tech products. (Sreedevi, 2013)

On the institutional based factors, similar studies also found that top management, quality of ICT personnel, the ICT policy framework of the country and the ICT legal framework for the country could impact on the marketing of e-banking products. While some of these factors such as top management commitment and quality of ICT personnel relate directly to the efforts of banks, others can be traced directly to the door steps of the government which must enact the right policies to ensure ICT development receives national priority. Accordingly, managers, in promoting their e-banking services should concentrate on increasing the overall awareness of the service among customers (Oye, Shaki and Iahad, 2013)

Government and corporate policies are also key factors in the development of efficient e-banking platforms to facilitate customer satisfaction. It seems evident that the average consumers will continue to weigh the benefits of e-banking services against issues related to trust, security and privacy, the desire to handle physical cash as well as the ability to access

personal services directly from their bank. There seems to be a lack of adequate legislation in areas such as cybercrime, security and user privacy. Government is advised therefore to pass laws on issues concerning ICT and its administration in order to protect Ethiopian consumers. Moreover, government should lower tariffs on ICT products such as computers to make them affordable to customers. On the banks, there must be enough ICT professionals, well trained, who will manage the e-banking system in order to ensure its smooth running on a continuous basis (Shah and Siddiqui, 2006). Similarly, the banks must also highlight corporate policies related to e-banking services in their marketing communication messages in order to assure their customers that they are protected while using any form of e-banking services.

Furthermore, banks need to increase the confidence of their customers as well as develop their skills and knowledge in using e-banking services. Managers could employ the use of video presentations at bank branches and on television to showcase the user-friendliness of such services. This will help customers become more familiar with the e-banking services. Ideally, e-banking services should also come at a very low cost; however. Some transactions would still require certain administrative charges. Hence banks offering e-banking services should look for opportunities to lower the charges on the service and transfer the cost savings to customers. Banks, in their promotional efforts should also emphasize the lower charges for online transactions as one of the key benefits of the service.

2.4. Electronic banking service rendering from employee perspective

In order to be successful, the introduction of e-banking in Ethiopia requires considerable development of the technology infrastructure. As a developing country, the technology infrastructure of Ethiopia is still in its developing stage and is still lacking the capability to fully support the implementation of e-banking. These issues mentioned above have urged the author to research deeply into the situation and study the practices concerning the implementation of e-banking in Ethiopia.

An unavoidable risk of implementing e-banking is the operational risk. The main concern of e-banking operating system is the security issues. Since providing e-banking services is not the initial purpose of the Internet, online e-banking is faced with various threats concerning security issues. In order to overcome this threat, constant maintenance and development of the system

have to be employed. With especial attention to employee's adequate training and updating with the latest techniques and gadgets. As a result a considerable highly trained amount of human resource is required. Carefully designed human resource plan with clearly defined objectives and training time for each department would yield better results in the operating process of e-banking. As mentioned before, financial institutions are able to offer e-banking services without setting up new branch or office. Furthermore, bank statements and bills can be sent to clients through the Internet, without the use of actual paper. The use of online statement and bill payment has been shown to significantly cut down the total expense of financial institutions. As a result, it allows banks to offer services to a wider range of clients, with lower fee compared to the traditional approach. (Kondabagil, 2007: 6)

The wide range of information that e-banking with the online transactions possibility has brought to financial institutions is a key factor for banks to define future strategies. In the process of analyzing the information, financial institutions can expect to get a hold of the most recent banking trends of customers as well as their preferences. This means that banks are aware of customers' wants and needs and can react to recent changes whenever needed. Furthermore, as the Internet and online banking reduce geographic limitations, banks have the opportunity to promote and offer more products and services to the hands of customers. Financial institutions have realized that banking no longer consists of only traditional services such as loans, deposits, transactions payment but additional services and package such as financial advices, insurance, housing finance can be offered to customers through the channel of online banking also. (Kondabagil, 2007:5)

2.5 Cost-**saving feature of e-banking**

With the help of e-banking services, financial institutions are able to expand their markets and attract more customers without the need to set up new branch or office. Internet-only banks with no physical office can be opened and operated thanks to e-banking. Zemen bank, has been for long the Ethiopian context a successful example where this ideology has been applied in a successful and impeccable fashion. E-banking services have also helped banks to widen their geographic scope as the nature of e-banking involves the use of the Internet. Financial institutions can expect to enjoy increase in transaction volume and the amount of users.

Furthermore, since transactions made through e-banking channels do not involve the use of paperwork, the cost of paper is greatly reduced. In the long run, in case the transaction volume is high enough, financial institutions can expect to save a considerable amount of money for paperwork.

2.5. Electronic banking in relation to customer satisfaction

In light of the recent financial crisis and global economic recession, leaders of financial institutions are under additional pressure not only to maintain customer satisfaction while sustaining lower costs, but also to maintain market leadership. To lower costs and maintain market leadership, bank leaders in Ethiopia have capitalized on superior service quality and information technology infrastructures. Electronic banking is considered as an online revolution of the traditional banking services which offers customers the greatest expediency for performing banking transactions via the Internet. All banks, especially the larger banks (Dashen bank, CBE, and Awash bank S.C) banks, have gradually increased their number of Electronic banking services available to customers over the past few years. The most popular electronic banking services are viewing balances and transactions, and fund transfers. Bill payment was also attempted by the CBE, however unsuccessfully. It can be said that this service is at the embryonic stages. Electronic banking is either offered as a value added service of physical bank branches or a virtual bank where customers can only perform banking transactions through the Internet and it is important to mention that operating costs of a virtual bank are much lower compared to traditional banks. (Hamid and Cheng, 2013)

Globally, there is a steady increase in Internet banking acceptance since the year 2000 (Liao Cheung, 2002). As Internet access has reached around 40% of the world population. The number has increased steadily since the last decade. In 1995, it was less than 1%. The number of internet users has increased tenfold from 1999 to 2013. The first billion was reached in 2005. The second billion in 2010. The third billion in 2014 (Internet World Stats, 2015). A large number of banks worldwide have increased their business investments in Internet technology driven by the expectation that the technology would provide better opportunities to establish a distinctive strategic position compared to other traditional forms of banking services (Evans & Wurster, 1997). Internet banking is particularly well-practiced in the developed countries

such as South Korea, Spain, and Austria, where more than 75 percent of all banks offer transactional services via the Internet (Maenpaa, 2006). The development of the Internet as a service and marketing channel has breached the geographical and industrial barriers, creating new products, services and market opportunities (Liao & Cheung, 2002).

Internet banking is developed to help banks deliver services and products better, faster, and cheaper. It enables customers to browse essential bank products and services seven days a week through their personal computers (Polatoglu & Ekin, 2001). It allows consumers to perform banking transactions over the Internet anywhere and anytime (Polatoglu & Ekin, 2001). There are three basic types of banking services given through the internet. Informational, communicative and transactional Internet banking services.

The banking industry recognizes four types of stakeholders or customers, namely: employees, customers, the community, and shareholders. Electronic banking should analyze the internal arrangement or alignment by answering these questions: are employees motivated to strive for corporate goals? Does the bank prepare employees for future promotions and leadership roles? Do employees possess the required knowledge and training? Does the culture empower employees? Is technology available? Does the bank assess the competitive advantage in areas of quality, cost, or both? In order for Electronic banking to create stakeholder value, the banking industry must manage and align its core business objectives with the new technology through electronics and the internet along with judicious financial performance, stakeholder value, internal processes and intangible assets (Kaplan & Norton, 2004; Vera & Crossan, 2004; Weiss, 2003 6-7).

By offering personalized electronic banking services tailored to suit Internet and non-internet banking products and services to specific user preference of customers in developing countries, bank management and marketing practitioners face a strong competition but can still be victorious by improving customer attitude towards using the service. By making sure that the customers are easily reached through the creation of email discussion list, asking customer opinions to improve a particular electronic banking product and building customers profiles through the use of transaction log to recommend the most suitable Internet banking services and products based on customers previous purchasing activities over the Internet, bank

management and marketing practitioners can resolve at least partially the e-banking risks (Momeni, Kheiry, Dashtipour, 2013).

Besides traditional advertising media such as newspaper, television and radio, web advertisements such as Internet banner advertisements, e-mail advertisements, online press release advertisements and search engine advertisements can also be used to promote the convenience, easy to access and efficiency of Internet banking services. Web advertisements are cheaper than advertisements in traditional media. For example, using Universal Resource Locators (URL) as an advertising tool in online search engine is free of charge (Turban, King, Viehland, & Lee, 2006: 20-21). Anyone can submit a URL to be listed in the search engine so that its content and link can be searched electronically.

Another key advantage of web advertisement is that it offers richer content such as text, graphics and animation that can be effectively combined in web advertisement to enhance consumer's understanding (Turban et al, 2006). In addition, web advertisement can reach a wider target of customers and can be updated at any time with minimal cost (Turban et al, 2006). Accordingly, first target audience should be the Ethiopian electronic banking users. Second, the traffic to the banking site should be handled by a powerful server that can handle the increased online traffic volume. Third, bank management should conduct necessary budget assessment and fourth, if possible, bank management could consider co-branding and advertising.

2.7.Security issues related to electronic banking

The use of the internet to provide e-banking services in the form of e-banking has brought along not only benefits but also various risks and security hazards for financial institutions and consumers. In order to avoid these risks and security issues, banks must change their operating system accordingly as well as supervise and analyze their procedures closely. The areas that a bank has to cover consist of security, data confidentiality, data and system integrity, system availability and outsourcing.

In order to ease the issues of security, the measures that a bank has to take involve the use of hardware and software, the administrative procedures as well as personnel management. The personnel responsible for operating the e-banking systems and websites must be trained appropriately and have a wide range of knowledge concerning security practices. These

principles must be met in order to properly run an e- banking system, including a well-configured firewall, strong encryption and authentication, tight password policies, back-up and recovery as well as virus scanning process (Zhu, 2013)

Furthermore, confidentiality of information must be ensured, with no unauthorized access allowed. The integrity of system and data means that the information must be kept accurate and reliable throughout the process of being transmitted between banks, customers and external service providers. Another key factor of running e-banking services is the availability of service. In order to maximize the use of e-banking services, the systems must be kept running all the time on a 24-hour basis, with fast response time and dependable performance. Therefore, financial institutions need to focus on capacity planning to deal with the increased transaction volumes as well as the new technologies applied (Ndlovu and Sigola,2013) Additionally the implementation of e-banking services has considerably increased the reputational risks of financial institutions. In an e-banking environment where personal contact is limited and the market is transparent, products and services are quickly copied by competitors; brand names are the only features to distinguish between financial institutions. Whether the brand name of a bank stands out or not depends entirely on the performance of its e-banking system. In case a bank falls short of delivering secured services in a timely manner and proves to be inconsistent, the reputation of that bank is at risk and has a chance of being seriously damaged. Furthermore, financial institutions with a damaged reputation are expected to face difficulties in expanding their market shares and attracting customers.

Operating a financial institution also carries certain legal risks, especially when e-banking services are applied. As mentioned previously, online banking has helped reduce geographic limitations between banks and customers. As a result, financial institutions can further their reaches to customers, even in foreign countries. However, banks are obliged to be well-prepared and have sufficient resources to deal with local laws. Some key issues that banks must take notice of consist of customer protection laws and confidentiality of information.

In comparison to traditional banking services, e-banking services allows users to have a much better record keeping as all financial transactions conducted are recorded in the system of

financial institutions. E- Banking users have direct access to their bank statements as well as electronic bills, receipts in a timely manner after they become available (El Ismaili, Houmani, Madroumi, 2014).

This advantage is appealing for personal customers who want to be aware of their financial stands on a regular basis or want to keep records of all the transactions made during a certain period. It is also an essential feature of e-banking that corporations and businesses strive for as it might help them significantly improve their record keepings (Zhu, 2013). Since the amount of transactions made by corporations is noticeably higher than that of personal customers, having all the transactions kept in the record of financial institutions reduces the risk of information getting lost in the process. Furthermore, as e-banking provides record keeping by electronic means, with no involvement of paper bank statements or bills, the risk of documents getting lost over time is eliminated (Ndlovu and Sigola, 2013: 34)

Information security consciousness is an enterprise's awareness for the importance of information security and the combination of its sensitivity in discovering and impacting network security and its initiative in maintaining network security. The cultivation of security consciousness is a long-term project. It takes a long time for both e-business employees and sellers to develop their security consciousness from knowing nothing to knowing well. Due to the specialty of e-commerce environment and operation methods, all groups involved in e-commerce should follow closely the pace of e-commerce information development and keep learning new knowledge by all means. For an enterprise, it should begin with all kinds of internal trainings to spread security consciousness among employees. Through teaching security strategies on all components of e-commerce, the enterprise can improve the security consciousness of its e-commerce marketers and managers and the crisis-processing ability of its employees. In addition, it is also very important to popularize the security knowledge among e-commerce users through various forms of media. After learning the marketing methods of e-commerce and the potential consequences that may happen in all components of e-commerce, one e-business user can make a great improvement on his/her ability to find and solve risks. With the training of security consciousness on both enterprises and buyers, the security of e-commerce will be greatly improved. (Zhu, 2013: 263-264) With the expansion of e-commerce and e-banking, large-sized electronic payment data warehouse or decision-supporting system is

required to reduce credit risk, market risk and financial risk. Database or data warehouse can be used to store and process information, provide decision support for all components of e-commerce and reduce credit risk that may appear in the electronic payment process. On the whole, the large-sized electronic payment data warehouse or decision-supporting system should be designed to: collect information resources and process and analyze them; scientifically manage assets, debts and intermediary business of customers; store, manage and analyze data while ensuring the symmetry, completeness, transparency and correctness of information; classify, organize, analyze, count and monitor various types of data according to their roles (Zhu, 2013: 260-261)

In order to realize the sharing, transmission and storage of network resources, security measures including firewall, physical isolation and VPN can be used to defend against attacks from unauthorized users. With the link transmission of data over logical networks such as Internet and Frame Relay, the extension of a private network where data is enclosed, encrypted and identified will be achieved. In the process of maintaining e-commerce, we should periodically troubleshoot the internal and external network to find all kinds of physical isolations, update operating system patches, and maintain the security of operating system, database, web servers and e-mail serves. In addition to the multi-network technique, the application of cryptography and digital certificate also shows increasing influence on e- banking. (El Ismaili, Houmani, Madroumi, 2014: 174)

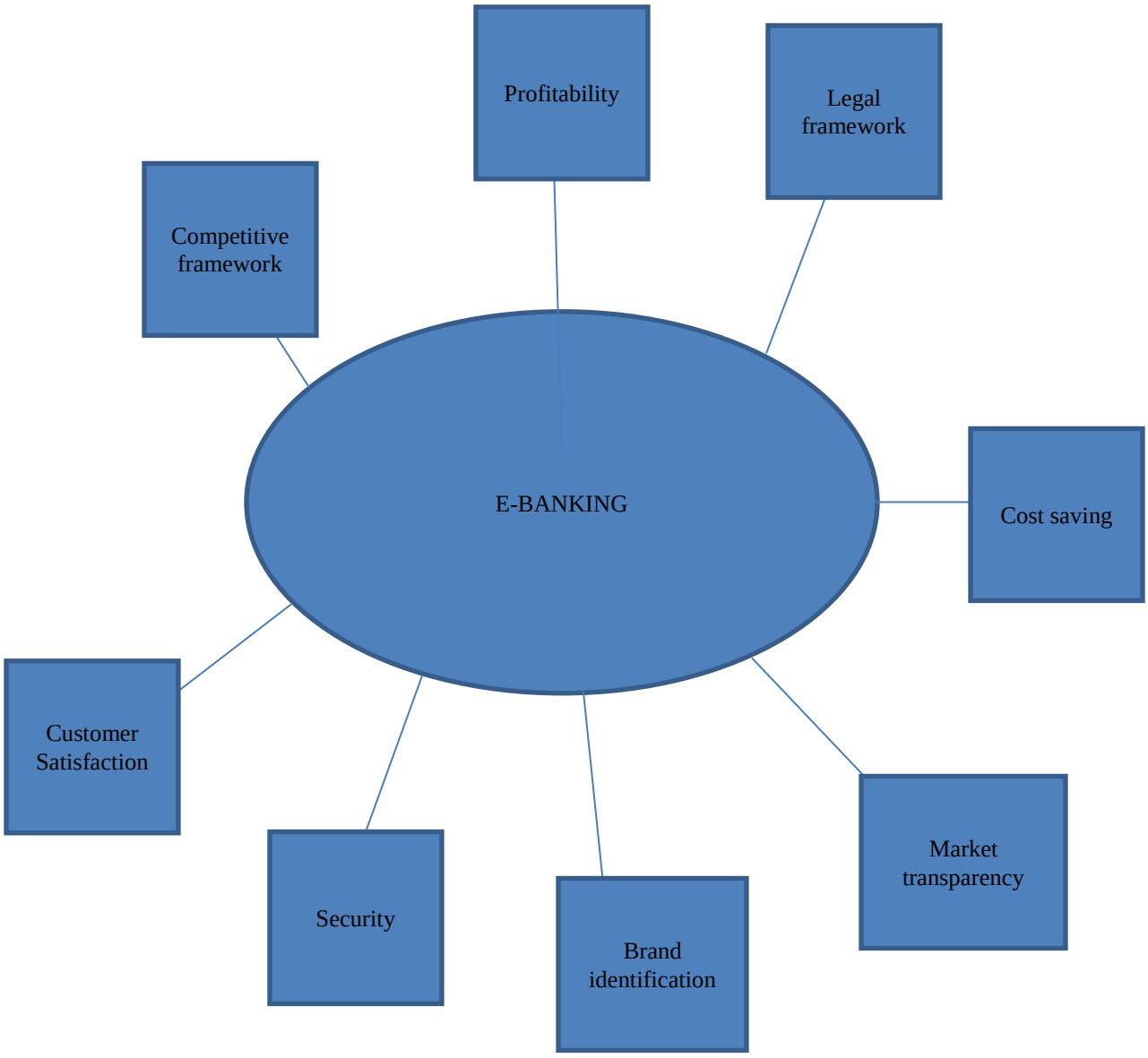
Trust management, authorization control and responsible mechanism in e-commerce, demand the authenticity, integrity and confidentiality of information. When various types of data are encrypted, transmitted through encrypted channels and decrypted after being received, interactive verification will be carried out among peer entities. The application of cryptography including identity verification and digital integrity, encryption and signature will guarantee the verification of identity and the authenticity and integrity of information. (El Ismaili, Houmani, Madroumi, 2014: 176). Because e-banking is characterized by complex participants, various types of transactions and large amount of processing data, daily preventive measures should be taken to maintain the normal running of facilities and system. Aside from periodically troubleshooting network of find physical isolations, the bank should establish: network security maintenance log to record security-related information and events which are convenient for finding problems

in an emergency; classified management system where data stored in database is encrypted on the principle of classified management; real-name authentication system to prevent someone from illegally occupying legal users' accounts and passwords (Ndlovu and Sigola, 2013: 36)

The reinforcement of daily operational maintenance can reduce the possibility of the system being broken and attacked and defuse different types of crises in daily maintenance. And thus, the risks to the system are reduced and the efficiency of e-commerce is improved. Aside from daily maintenance to hardware and system, risk analysis strategies should be developed to assess the security risks of the system. Risk analysis strategies mainly include risk identification, risk analysis and risk control. Risk identification is to identify security risks that may pose potential threats to e-commerce system from all kinds of collected threats, bugs and other information. Risk analysis is to use qualitative and quantitative methods (analysis, comparison and assessment) to determine the danger classes of all security risks in e- commerce to assess the possible consequences that they may cause to all components of e- commerce. It mainly includes risk probability analysis, assessment matrix analysis and sensitivity analysis. In the analysis, it is difficult to quantize all influencing factors, so we can analyze the risks by mainly using the qualitative method and complementarily the quantitative method. Risk control is to control the risks at the affordable level by using risk control methods, such as risk control measures and Risk compensation measures. (El Ismaili, Houmani, Madroumi, 2014: 178)

With the rapid development of e-banking and e-commerce, many new problems and contradictions emerge. In the globalization of economy, e-banking poses a great influence on the economy, politics and law. There are many strategies for insuring the prosperity of the all-important e-banking security: developing the education and training of e-banking in enterprises to improve their security consciousness; adopting multi-layered network and cryptography to guarantee information security; enhance risk analysis, prevention and control to reduce system risk; complete e-commerce legislation to guarantee the interests of all involved parties and many more other ways. The most important factor for successful implementation and diffusion of this service along with security, remains to be alerting institutions, consumers, policymakers and other stakeholders involved in the business sector to acknowledge right away the importance of e-banking to the daily business transactions, along with embracing it to capitalize upon this modern and cost saving way of undertaking business.

2.8. Conceptual framework of the study



CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.1.Research design

This research followed a qualitative research design. Qualitative research techniques are particularly appropriate to gain an in-depth understanding on a given subject matter (Miles & Huberman, 1994). Qualitative research techniques are particularly appropriate to research specific services rendered by major corporations because these services vary according the type of organization, the experience of people, and people's perceptions and judgments about that experience. Furthermore, qualitative methods are regarded as the methods of choice when the objective is to gain a deeper understanding of theoretical propositions.

3.2.Population and sampling techniques

Population refers to the full set of cases from which a sample is taken (Saunders, 2009:21). It refers to the larger group from which individuals are selected to participate in a study. In the case at hand, the population constitutes all employees working in CBE's Gofa branch. Target Population refers to the set of all elements belonging to a certain defined group to be studied or to which research results are going to be generalized to.

Purposive sampling technique was applied in the case at hand and respondents were handpicked. The sample drawn in this case refers to eight employees working in the electronic banking department. It was believed that these eight people will render valuable data. Missing even one of them will have great repercussions on the quality of data to be collected. The sample constitutes managerial staff and non-managerial employees above the position of officer. It was not found necessary to include the remaining segment of the population as they aren't intensively involved in handling electronic banking and related issues.

3.3.Types of data to be collected and used

In this study both primary and secondary data are collected and used. Primary data are those which are collected afresh and for the first time, and happen to be original in character (Kohtari, 2004:95). Secondary sources are those which are made available or have been collected for other research purposes. It refers to data that are already available i.e. data which have already been collected and analyzed by someone else (Kohtari, 2004). As sources of primary data interviews were conducted and focus group discussions were held. As secondary sources of data, different documents of the bank in the area including polices and procedures rendered valuable insights on the subject matter

3.4.Data collection methods

As sources of primary data interviews were conducted and focus group discussion were held. In qualitative research one of the most accepted and advised methods for obtaining insightful information from subjects is interviewing. The interview method of collecting data involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses (Kohtari, 2004:97). Interview is opted for since its potential as a data collection method can be best exploited when used for the exploration of more complex and subtle phenomena (Denscombe, 2007). This plus its ability to enable the researcher gain insights into the respondents' opinions, feelings, emotions and experiences makes the interview method appropriate in this case.

Among the various forms of interview, the semi structured one was used. Such interview was used since it was believed that it allows the researcher to know specific information which can be compared and contrasted with information gained in other interviews at the same time maintaining flexibility. This is helpful in gaining a fuller understanding of the various components of strategic management. The interview was conducted in the office of the respondents and followed the framework provided under the interview guide which is attached under Appendix No.A.

The interviews were conducted in the place where each responder was located based on reservation made for the particular date and time beforehand. All of the interviews were recorded with the consent of the respondents.

Unstructured in-depth interview was also held with the e- payment process department assistant manager, the IT department head and with a Senior Customer Service officer in charge of overseeing the operations team

3.5.Data analysis techniques

Zikmund & et.al define data analysis as the application of reasoning to understand the data that have been gathered by determining consistent patterns and summarizing the relevant details revealed in the investigation. It is done with the aim of making sense out of data collected using various methodologies.

For the purpose of this study qualitative data analysis method was employed. Meaning that weight was given to the use of analytic and integrative skills and personal knowledge of the social context where the data was collected. The audio recorded format of the interview was transcribed into a word processed format.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1. Interview with selected CBE e-payment process department representatives

Threats to e-banking service rendering

4.1.1. Security threats to e-banking service provision

Prior to the introduction of e-banking services in Ethiopia, people used to rely for their daily business transactions entirely on cash. Even up until now when e-banking services have been implemented, cash is still the dominant force and the main method of making transactions. However, e-banking services such as plastic money and Internet banking have helped customers become less and less reliant on cash. Dealing with transactions by cash, with face-to-face contact is the traditional approach of Ethiopian people. This method of transaction requires no extra fee and less paperwork compared to transactions conducted in bank branches through the traditional method. However, cash is a physical object and the risk of it being stolen or lost during the process still exists.

E-banking users rely on the use of electronic cards while purchasing goods and services from merchants, and on Internet banking while conducting financial transactions such as paying bills, transferring money, using ATM's. Either way, the risk of losing money while using e-banking services is limited compared to the use of cash. Even merchants are free of the risk of losing money thanks to the application of the EFTPOS system in their stores. Furthermore, if cash is stolen or lost, the damage is almost always permanent and irreversible. Electronic cards are much safer. If a card is stolen or lost, or unauthorized access to e-banking user's account is detected, the issuing financial institution can take measures to block all further transactions from that account.

"In Ethiopia where the risk of getting robbed or stolen is high, users feel threatened while carrying a considerable amount of cash. The use of credit card has freed our customers of this worry and offers a safer payment method."
(CCSO- CBE)

Further adding to some security related aspect of e-banking service provision, the officer stated that the bank has found it difficult or next to impossible to launch services such as credit card banking service because of the difficulty of the lack of a proper identification cards and fixed addresses or and social security cards directly traceable to individual customers. He stated that in Ethiopia one can easily get an identification card from any given Kebele and one can use the same id card to get a credit card, get overdraft from the bank and disappear from the location and get another id card from another kebele with different vital status information, obviously exposing the bank and other businesses to obvious financial risk.

"There is a problem with the concerned government body (kebeles, municipality etc.) of properly recording, coding and keeping the vital data of the citizens. It's very easy for people to continuously obtain different Id numbers with different names and vital data's, making it difficult for the financial institution to trace individuals in cases of fraud"

(SCSO– CBE)

4.1.2. Customer's reluctance

Customers' conflict in expectation and reality

In Ethiopia, the usual sight in every banks and financial institutions is the long queuing line and the long waiting time to complete a transaction really hinders the working life of a corporation as well as social life of customers. The introduction of e-banking with the benefit of significantly reducing the waiting time for each transaction is aiming to satisfy customers with hectic working life. As a matter of fact, this advantage of e-banking has attracted numerous customers and is the key factor in the decision-making process of customers for registering for e-banking services.

"Evidence shows) that after the launching of the e-banking services, significant reduction in the queue all over branches have been registered. The installment of ATM's, mobile banking and P OS has contributed largely to the increase in efficiency and effectiveness"

(E-payment process department assistant manager)

Another challenge to the successful application and diffusion to the e-banking service rendering of the CBE is a reluctance of many customers to sign for the service. Although the

bank considers as adequate the presentation and information offered by customer services to the customers, there has been difficulty in raising the number of mobile banking, internet banking and POS service users. When asked the possible reasons for such resistance the e- payment process department head gave the following explanation.

"When offered the information concerning e-banking services, many of our customers are tempted, however unwilling to register for it since they are unfamiliar with the authorization process and not ready to adapt to a new kind of service."

(E-payment process department assistant manager)

4.1.3. Customer preference

An outstanding characteristic of e-banking services is the low transaction fee compared to traditional bank services. Nevertheless, in the Ethiopian context, the cost-saving feature is not the driving force behind the decisions of customers to register for e-banking services. In the developed world where customers are highly familiar with the usage of online banking and the total numbers and frequency of transactions made are considerably high, cost reduction is achievable because customers have to pay relatively small fees in regard to the amount of transactions they make. However, in the Ethiopian market, the amount of active users and transactions made are considerably low. Therefore, customers can not expect to fully utilize the cost-saving feature of e- banking services. In addition, most customers still prefer the use of cash over online banking as it has been the main method of transaction for a long period and no fee is required while dealing by cash. As a developing country, Ethiopia still lacks in infrastructure to fully develop e-banking. E- Banking services are available at most of financial institutions domestically; however, the option of paying by e-banking means is not always available as many merchants have not implemented the EFTPOS system yet. Since customers cannot fully enjoy the convenience of using e-banking and would still need to carry cash along, they find the service excessive and unnecessary.

"Our customers find e-banking services appealing in terms of fast transactions and reducing processing time, however, as most non corporate users not need to make Transactions daily or even weekly they find the service as slightly superficial and overwhelming. Further they declare that they feel more familiar with face-to-face contact and the use of cash."

(E payment process department officer assistant manager)

4.1.4. Lack of acquaintance with the technology & other security related hazards

The introduction of e-banking has brought a whole new dimension to traditional banking. However, as a new service with new interface and method of approach, customers are required to adapt to an entirely new environment. In order to use e-banking services, customers are compelled to fully understand these new features such as setting up password, accessing the issuing bank's website, customer verification, making transactions through the website as well as many other features. For the younger generation, university educated professionals, the adapting process is less complicated since this group of customer is more familiar with the use of the Internet and has a high internet penetration rate. The older generation suffers from lack of acquaintance and faces difficulties in the process of adapting to e-banking services.

"Even though many customers are aware of the benefits that e-banking would bring, being unfamiliar with the use of the Internet in general, increases their perception of finding difficulty in using Internet-based service". Furthermore the risk of customers not fully understanding the security precautions (SCSO-CBE) Furthermore, and misusing e-banking services is noteworthy and serious security arise in case of misuse. Customers need to be prepared and guided by issuing banks prior to actual usage of e- banking in order to avoid unwanted security problems. Regardless of the security issues involved with e-banking, most customers prefer simple, fixed password instead of advanced matrix password with constantly changing password with each use of e-banking. The customers' demands conflicts

"During the implementation process of e-banking in our bank, we have considered to apply the matrix password in order to heighten the security level. However, most customers desire a fixed and easy-to-remember password. The customer knowledge and willingness to adapt to new services and features must be improved in order for us to be able to apply the most secured and advanced security methods." with the current trend of e-banking security. As a

result, financial institutions in Ethiopia find it difficult to satisfy customers' needs and utilize advanced security methods at the same time.
(Head of IT department – CBE)

4.1.5. Operational risk

In order to be successful in implementing e-banking services, a bank has to put the level of security as the top priorities. As an Internet-based service, the use of e-Banking contains various hidden threats such as the threat of viruses being spread, hackers as well as leakage of information. In an era of technology, these threats might spread widely in a short time and cause serious damages on both financial institutions and customers.

"Providing e-banking services always carries various risks, if the security level is insufficient, serious damages can be done. Prior to the implementation of e-banking services, we had to analyze the risks carefully and come up with strategies to heighten our security level."

(Head of IT department – CBE)

These threats require serious attentions from financial institutions and most institutions find the needs for a change in administrative procedures as well as an extension of workforce. The Human resource department must ensure that the personnel involved in the process of operating and maintaining the e-banking system is competent and well-trained in security practices area. Since the nature of e-banking limits physical contacts and allows users to access on a 24-hour basis, the system must be kept running all the time with a reliable performance as well as fast response time. Furthermore, some problems require immediate attention, such as loss of electronic cards, customer's account being hacked and stolen; this puts more and more pressure on the operating system of banks. Finally, the implementation of e-banking has boosted the volume of transactions leading to possible shortage of adequately trained personnel to deal with the increasing amount of customers. The capacity planning process is vital while implementing e-banking services, as poor capacity planning might lead to serious shortage of personnel and personnel with inadequate level of knowledge concerning security issues.

“In order to deal with the risks of running e-banking services, our IT department always has to be ready in case problem arises. Our staff has gone through extensive training to ensure the security level of our e-banking services is kept in high standard.”

(Head of IT department – CBE)

“We are aiming to fully utilize the benefits that e-banking brings to customers, providing customers with services of high security level and a fast-response time on a 24-hour basis. However, we are facing challenges from the additional needs of qualified personnel and expensive training programs to deal with this task.”
(E-payment process department assistant manager)

4.1.6. A non-profitable service

One of the driving factors for financial institutions in Ethiopia is to implement e-banking service is the benefit of cost-reduction that it brings along. The theory of e-banking services reducing costs for banks proves to be right in foreign markets where customers are used to modern technologies in general and online banking particularly. In those markets, e-banking has been implemented, developed and widely accepted by customers. Many customers make financial transactions through e-banking channel on a daily or weekly basis, thus the volume of transactions is considerably high and keep on rising. Notably big corporations with billions in dollars in revenue are the principal customers of banks. The huge amount of transactions made over time has helped foreign banks to save noticeable amounts of money even with the initial investment and the cost to maintain e-banking services taken into account. Nevertheless, in the Ethiopian market, the penetration rate of online banking is relatively low due to various structural and nonstructural reasons such as lack of knowledge, preference of cash, inadequate internet service provision, lack of reliable power etc. Because of the above mentioned reasons, most banks CBE included declare that the provision of e-banking banking services is far from being profitable. The initial investment, cost of maintenance, cost of training staff as well as the increased wages paid due to the extension of workforce needed are not recovered through the service rendering of e-banking products.

"From the beginning, we aimed to reduce our operating costs in the long run. However, up until this point, we haven't achieved this target yet. The main reasons are the high costs of setting up and maintaining the operating system, yet the amount of e-banking users is rather limited."

(E-payment process department assistant manager)

4.1.7. Other economy related factors

Even though Ethiopia is developing with a rapid and sustained pace, the infrastructure level is still far behind the developed countries or compared with neighbors like Kenya, Uganda or Sudan. The monopoly Internet service provided in Ethiopia is still lacking in term of stability as well as connection speed and penetration. These short-comings seriously affect the use of e-banking services of customers. Customers often experience disrupted services with the unstable Internet connection. The efforts that financial institutions put into maintaining a dependable operating system are insufficient with an under-developed infrastructure level. In order to maximize the benefits of e-banking services, the infrastructure level must be improved and this is a challenge that would only be overcome with serious support from the Ethiopian government.

"The unstable Internet connection speed often interrupts customer's e-banking session. It also makes it hard to access e-banking accounts on the move and it reduces the convenience of using e-banking services significantly." Further explaining he added that "We do think that the limited and imperfect level of infrastructure such as internet service provision and power shortages, being closely related to e-banking service provision have severely discouraged our customers from registering because lack of quality means lack or decreased perceived usefulness"
(E-payment process department head)

In addition, in areas outside of Addis Ababa, the limitation of infrastructure has led to the lack of merchants with EFTPOS system set up in their stores. As a result, consumers continue to rely heavily on the use of cash as the option of paying by e-banking means is not always available it at all.

"Many stores, restaurants do not provide the option of paying by credit card or debit card. Therefore our customers choose to stick with cash as it serves all purposes and can be used everywhere."
(SCSO-CBE)

4.1.8. Money laundering

E-banking, especially internet banking, can often be misused for money laundering. The characteristics of having no physical contact with bank representatives and reduce geographic limitations do not only bring benefits but also pose certain risks. Once the registration process is done and the account is opened, it is impossible for issuing financial institutions to identify whether transactions are made by the nominal holder of the account and the place where the transactions are taking place. Thus, financial criminals can take advantage of this characteristic of e-banking. "Dirty money" obtained from illegal sources such as gambling, insider trading, tax evasion can be easily laundered by using e-banking. Various government institutions have issued advanced regulations and guidelines on customer authorization and verification to avoid money laundering; however, monitoring online transactions requires a huge amount of time and efforts. It is close to impossible to detect all activities of money laundering in a timely manner so that banks can intercept and suspend the illegal activities. "One of the toughest challenges to tackle while providing e-banking services is the risk of money laundering. Financial criminals take advantage of the lack of physical contact to conduct transactions of illegal money".

(E-payment process department assistant manager)

4.1.9. Legal framework

The Ethiopian government, although officially adhering to the liberal economy, has kept for years major sectors such as infrastructure and finance under close scrutiny. The CBE being the biggest government wended corporation in the country (some say even in Africa in terms of assets) is surely backed by a favorable environment in relation in comparison to the private banks. But still especially when it comes to e-banking services, there are many regulatory and legal barriers and limitations that are hindering the growth of the service.

"The limitation on the amount and number of transactions per day, made through e-banking payment modals have severely decreased the range and the utility of the service to wealthy individuals and corporate customers"

(SCSO-CBE)

4.1.10. Competitive forces

The Ethiopian financial market is still at its early stages. The regulatory framework, that prohibits foreign banks from entering and the limited number of banks currently operating along with the considerable entry barriers have made it possible for existing institutions to be successful in terms of profit making.

When the SCSO we interviewed was asked on the matter responded by saying that "For now, we do not think we face serious competition from other banks. Our bank has superior financial and operational capability. But some banks such as Dashen are doing an excellent job in attracting customers especially on POS. They do give a good customer service. We are currently working to insure that our bank is also doing its best on that matter". His statement suggests that the banks has the upper hand and that management should focus on ways to increase the lead and maintain it.

4.2. Opportunities of E-banking service provision to the CBE

Justifications for the provision of e-banking services

The provision of e-banking services requires a well-developed and efficient economy. The high tech nature of the service and the immense capital needed to launch e-banking services along with the expensive and easily obsoleted hardware and software, makes it compulsory to first enquire if there are the necessary conditions to engage in such a risky endeavor.

Speaking on this regard, the department head stated that: "We do think that the financial sector in Ethiopia is developed and competitive enough to justify the launching of e-banking services. Our bank, the Commercial Bank of Ethiopia, has both the financial and technological ability to offer our customers the best e-banking services that are possibly available. We use the latest technology for our customer's e-banking needs".

Further explaining, he stated that e-banking is vital to the banks long term goals and objectives. As the bank thrives to become a "world class bank by 2020", e-banking is certainly one of the most important cards to play. Through e-banking, the bank wants to create a "cashless society".

"We have the objective of achieving superior resource mobilization through e-banking and information technology. We give so much weight to this service that the e-payment process department directly answers to the office of the President of the Bank"

(E- Payment process department assistant manager- CBE)

4.2.1. Increase in financial management ability

In comparison to traditional banking services, e-banking services allows users to have a much better record keeping as all financial transactions conducted are recorded in the system of the financial institution. E-banking users have direct access to their bank statements as well as electronic bills, receipts in a timely manner after they become available. This advantage is appealing for personal customers who want to be aware of their financial stands on a regular basis or want to keep records of all the transactions made during a certain period. It is also an essential feature of e-banking that corporations and businesses strive for as it might help them significantly improve their record keepings. Since the amount of transactions made by corporations is noticeably higher than that of personal customers, having all the transactions kept in the record of financial institutions reduces the risk of information getting lost in the process. Furthermore, as e- banking provides record keeping by electronic means, with no involvement of paper bank statements or bills, the risk of documents getting lost over time is eliminated.

"We are confident with our record keeping system. All the conducted transactions are recorded in our system with perfect precision. Customers can expect to keep better tracks of their financial situations, especially big corporations with high demand for a competent record keeping." Further adding the officer stated that: "E-banking is not a profitable service for our bank. At least not for now. It is a service provision that requires huge amount of capital because of the necessity to acquire hardware and software technology and to train competent personnel. But positive results have been registered in branches because long queues have been shortened thanks especially to ATM's and mobile banking. Nowadays our customers can even order check stabs online without the need to waste their time by physically going to branches." The officer implies that the bank has the advantage of lessening the stress on branches and of

decreasing the amount of errors per given operations that can occur whenever humans are involved in giving routine and monotonous transactions.

(SCSO– CBE)

4.2.2. Cost-saving aspect

With the help of e-banking services, financial institutions are able to expand their markets and attract more customers without the need to set up new branch or office. Internet-only banks with no physical office can be opened and operated thanks to e-banking. E-banking services have also helped banks to widen their geographic scope as the nature of e-banking involves the use of the Internet. Financial institutions can expect to enjoy increase in transaction volume and the amount of users. Furthermore, since transactions made through e-banking channel do not involve the use of paperwork, the cost of paper is greatly reduced. In the long run, in case the transaction volume is high enough, financial institutions can expect to save a considerable amount of money for paperwork and printing notes. "E-banking services have allowed our bank to serve more and more customers without investing on new office. Considering the costs of initial investment and maintenance of the operating system, we expect to benefit from the cost-saving feature of e-banking in the long term."

(SCSO- CBE)

4.2.3. Market transparency

In an era of modern technology, with the usage of the Internet becoming more and more widespread, the availability of information has been elevated to a new level. Information concerning customer demands or current trends can be quickly gathered. Financial institutions are able to react to the changes in customer demands in a timely manner thanks to the ease of information-gathering that e-banking provides. Additionally, information from competitors such as newly launched product ranges or services can be obtained as soon as the launch date commences. Therefore, financial institutions have enough time to react and develop their own ranges of products and services to compete, without the risk of being left behind by competitors. It is safe to say that e-banking service is key to improving financial institution's competitiveness.

"Obtaining information from customers and other financial institutions has never been easier. With the help of e-banking services, we are able to quickly adapt to new changes in the market and stay competitive all the time."

(SCSO – CBE)

4.2.4. Centralized bill payment systems

In the west, e-banking service provision is not limited to conventional banking transactions. Customers have the option to pay their bills through e-payment modes without having to lose their time by physically going to the premises of this or that creditor. Until now this services haven't been made available to the public at large.

"Some regulatory restrictions from the NBE, and problems related to the lack of capability from major government corporations such as Tele, Electric Power Corporation, and Water and sewages agency have not made it possible for us to create a centralized e-payment methods for customer bills. In the future we will work hard towards realizing this goal"

Clearly this kind of service would boost the bank's earnings and save customers a lot of money and time.

4.2.5. Brand identification and image building

Brand and brand identification are key to successful marketing management for any modern corporation. In addition to the many peculiar benefits that it gives, e-banking can also serve the purpose of promoting financial institutions' brand names. In an environment where there are many competitors, limited contacts between customers and financial institutions and the level of product standardization is high, brand name is the only tool to distinguish one financial institution from others. If the financial institution can provide secured, stable and high-quality e-banking services on a regular basis to customers; it can expect to attract more customers and have its brand name stand out from other competitors. "We are working hard to keep up the quality of our e-banking services and serve customers as good as we can in order to build up our brand name. As our product range does not differ from our competitors, maintaining a good level of service and a stand out brand name is crucial."

Further the head explained that the bank has been undergoing some radical restructuring processes during the last five years to maintain its superiority in the Ethiopian market and to possibly in the long run even establish branches outside the country. The recent attempt to establish a branch outside Ethiopia in Juba, South Sudan is a testament to this plans.

"We plan to reach the customers by providing excellent customer service, intensive promotion, free e-banking provision, and charge back/intensive programs" He explained that the "charge back/intensive" program is a marketing strategy targeted to attract more customers by giving financial incentives to card holders and merchants who agree to install a POS. Basically, card holders if male benefit from 2% charge back on the total value of the purchase. 10% if the customer is a female CBE debt card holder. These are, according to the department chief, unique services that differentiate the bank from competitors. Further the chief explained that the Ethiopia being the diplomatic hub of Africa, the bank wants to go continental so to say by providing tailor made and specialized services to the various diplomatic missions in Addis Ababa and other international organizations.

"Before the launching of the e-banking services, various embassies and international organizations were choosing Kenyan banks for their financial needs. Now, thanks to the e- newly launched e- banking services the bank has been able to secure a deal with many of this institutions"
(E-payment process department assistant manager)

4.2.6. Focus group discussion report

Questions and Responses

The following are the focus group questions we developed and the responses shared by the officers of the e-payment process department in summary.

Do you believe there is enough and adequately prepared and trained staff in the e-payment process department?

The majority of the FGD participants expressed a serious amount of concern that they perceive as if there is an inadequate number of personnel to handle all the work load that the department has to undertake in order to satisfy customer's needs. However they also acknowledged the fact

that they feel as if management is working hard to better the situation and that they are seeing glimpses of positive change in this regard. Along with this they also remembered that at times they feel as if there is also lack of physical resources, such as vehicles because of miscommunication and disorganization. Some participants also emphasized the need of more on job training programs that can enhance their capacity to efficiently undertake the jobs they are assigned to.

What resources, training and/or support would help make your job easier in addressing the needs of the customers of the CBE?

The participant officers expressed that they perceive as if frequent and quality training given to them by licensed IT and e-banking professionals and related provision of technical training and assistance would contribute highly to the betterment of their skills as individuals and to the job the department undertakes as a unit. Further the FGD participants also revealed that they believe that they often feel as if they are not adequately trained to fully meet the demanding nature of the jobs they undertake, in order to feel they have what it takes to fully accommodate any kind of request or face any kind of challenge on the job.

What are the major problems that you encounter as a department while rendering e-banking services?

The participants expressed that as a department the major problems they face are connected to repetitive system failures and/or temporary unavailability of connectivity and network because of problems with the internet provider, along with some customer's and merchants lack of knowledge on account reconciliation and in general of e-payment devices usage. They perceive these as major hurdles to the service provision of their department.

What are the major complaints from customers on the service you provide?

We were also able to understand from members of the FGD that many customers so far have been complaining in different ways on the service the department provides. Some feel as if the service is not adequate because they feel as if the connectivity problems decrease the perceived

usefulness. It was also reported that some customers also complain on the fact that transactions are not credited on time and rare cases whereby customers make mistakes and they make transactions that they did not want to make, wrongfully, by mistake have also resulted in tricky situations to handle.

What age would you say the majority of e-banking service users are?

The respondents answered almost unanimously that they provide the services to all CBE's customers without discrimination of age, sex and economic status. Base on that, they consider as if all account holders are or can potentially become e-banking service users.

What income level customers would you say subscribe to your e-banking services most?

Similarly to the age issue the FGD participants also expressed that they feel as the income level does not really affect the subscription to e-banking services. They reaffirmed their stand that the service is provided to customers indiscriminately and all customers participate equally.

What educational level customers would you say subscribe to your e-banking services most?

On the contrary to the "age" and "economic status" factors, curiously enough the respondents felt as if educational level is very much linked to subscription when it comes to the e-payment services we provide. They justified this by stating that e-banking services require the customer to be familiar with the modern computerized interface. They agreed that customers who have acquaintance with these interfaces are the ones who are the most comfortable making use. As the bank has a wide reach and many customers, especially outside the capital in towns and the rural area, the e-banking service acceptance according to the participants, has shown to be very low. They agreed that education and ICT knowledge have a great impact on e-banking service acceptance and subscription.

Do you believe you have reached a satisfying number of clients through the provision of your e-banking services?

Responses:

Answering to this question, most respondents, if not all affirmed that they do not feel as if they, as a department have reached to give service to a satisfying number of CBE's 10 million plus customers, however they also expressed deep believe they will manage to do so by the year 2025 or earlier in order to achieve the bank's vision of creating a "cashless society". The FGD members stated that they understand the fact that they are, as a department quite young, and also e-banking service provision in Ethiopia is relatively a new edition to the banking sector. They admitted that a tremendous amount of work done efficiently and effectively is required by the department, the bank, and government to tackle the problems that they have been encountering so far and to reach a satisfying number of customers through e-banking service provision.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1.Conclusions

This thesis focuses on the implementation process of e-banking services rendered by the CBE with the aim of unveiling the challenges that the corporation faces while rendering this services as well as identifying the opportunities that arise during the process of e-banking service provision. Under section dealing with the theoretical part, the opportunities of and threats to the rendering of e-banking as provided in the literatures is included. The following conclusions are drawn from the research as a response to the two research questions raised at the outset. The first research question was; what are the opportunities to the rendering of electronic banking by the CBE? The second research question aimed at identification of the challenges of electronic baking.

The importance of Innovation and ICT in the banking sector is important. Its effectiveness however depends on identification of the challenges and opportunities.

The findings indicate that the main motivations for the implementation of e-banking services by the CBE are driven by management's will to enhance the experience and satisfaction level of customer.

A demand on the side f the bank to hold on and expand the market share leadership and dominance is also among the main motivations for the implementation of e-banking.

The challenges to CBE's e-banking service provision are shown to come from the lack of awareness and knowledge about e-banking service usage and usefulness by CBE's customers.

The findings also indicate that unsuitable level of basic infrastructure facilities such as stable internet connectivity and electricity provision pose a challenge to the successful implementation of electronic banking at CBE.

On top of this, security, legal and regulatory threats and restrictions also pose a shadow on this emerging service in the Ethiopian context.

5.2.Recommendations

From the outcomes of this research, we have come to isolate and identify the major difficulties and challenges, along with also shading a light on the opportunities that the CBE can capitalize upon while rendering the e-banking service to customers. Unfortunately, most of the external challenges that the bank faces when providing e-banking services cannot be overcome by the efforts of the institution alone. However, the following recommendations are forwarded.

- The bank is advised to requesting more institutional, regulatory and legal support from the government and customers alike to successfully go ahead with the e-banking service rendering.
- The bank should work hard to meet the customer's need of awareness creation in order to tackle the lack of knowledge and the consequent reluctance caused by it to subscribing to this modern and efficient service provision.
- The CBE is advised to develop marketing plans aimed at further intensifying a more detailed, informative educational promotion schemes along with better customer care aimed at attracting more subscribers.
- In order to put customers at ease and avoid difficulties, the bank should provide easy- to-follow printed guidelines and instructions prior to the registration process at branch offices.
- The institution is also advised to focus on improving the quality of e-banking by guaranteeing the security and stability level of services.
- The institution is advised to meet the needs of the employees and by providing, timely, appropriate, quality and intensive training programs aimed at raising skills, ability, knowledge and overall performance.
- Moreover, to achieve success capacity planning must be well-prepared by the institution to avoid lack of efficient and highly professional personnel as well as necessary gears hardware and software in case problems arise.
- Finally the bank can also co-operate and prepare experience sharing venues with well-established foreign banks in order to learn from their experiences.

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Appendices

APPENDIX A

Interview checklist and guidelines

(Questions to be forwarded to middle and upper management officials of the e-payment process department of the CBE)

1. Do you believe that the financial sector is fully developed and ready to accommodate e-banking services?
2. Do you consider e-banking as an integral and strategic part of your banks objectives?
3. How do you intend to reach your 10+ million customers through the provision of e-banking service?
4. Is there a separate marketing plan for the provision of the e-banking service provision?
5. Do you think that the existing infrastructure in terms of telecom provision and availability of technology is conducive to the development of the e-banking service provision?
6. Do you believe that the provision of the e-banking service has positively affected the image of the bank?
7. Have you observed a positive correlation between e-banking service provision and economic returns?
8. Do you think that the government has conducive policies in place that can aid e-banking service provision?
9. What has been the most serious problem for the e-payment process department so far?
10. Has the provision of the e-banking service positively affected the more traditional banking activity by optimizing efficiency levels and by decreasing the amount of stress on physical branches?
11. Why are major e-banking services like credit card service and electronic bill payments are still not being implemented by the CBE?

. Do you believe there is a serious competition threat? If yes, how do you cope with the competition?

13. Since the majority of the non-millennial Ethiopian population is not familiar with English, how does the bank plans to manage to resolve this problem and reach as much people as it can possibly reach?

14. Do you undertake any kind of face to face training program for customers? Do you distribute any kind of manuals that can make customers aware on how to use the e-banking services?

APPENDIX B

Interview and focus group discussions participants list

1.1 INTERVIEW PARTICIPANTS

1. TARIKU MEKONNEN (CUSTOMER SERVICE MANAGER)
2. NEBYU (IT MANAGER
3. TADESSE YOHANNES (SENIOR CUSTOMER SERVICE OFFICER)

1.2 FOCUS GROUP DISCUSSION PARTICIPANTS

1. KALKIDAN DESALEGN (CUSTOMER SERVICE OFFICER)
2. TIGIST SHIFERAW (CUSTOMER SERVICE OFFICER)
3. TIGIST HAREGAWI (CUSTOMER SERVICE OFFICER)
4. NEBIL AREBO (CUSTOMER SERVICE OFFICER