ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

THE PROSPECT AND CHALLENGES OF E-BANKING FROM CUSTEMER PERSPEPECTIVE: THE CASE OF COMMERCIAL BANK OF ETHIOPIA IN SOUTH ADDIS ABABA DISTRICT

BY

MELESU SENIBITU GODANE

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DECLARATION

I, the under signed, declare that this research entitled "The prospect and challenge of E-banking from customer perspective in case of Commercial Bank of Ethiopia in south Addis Ababa District" is the result of my own effort and study. I also declare that all sources of materials used for the study have been duly acknowledged. I have produced it independently except for the guidance and suggestion of the Research Advisor. This study has not been submitted for award of any Degree or Diploma Program in this or any other Institution.

Declared by MELESU SENIBITU GODANE

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ENDORSEMENT

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

MOHAMMED MOHAMMEDNUR (ASST PROF) Signature _____

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Table of Contents

List of Abbreviations and Acronyms

ATM Automated Teller Machine

CBE Commercial Bank of Ethiopia

CIF Client Information Filling

EB Electronic Banking

EFT Electronic Fund Transfer

IB Internet Banking

ICT Information and Communication Technology

LAN Local Area Networks

NBE National Bank of Ethiopia

MB Mobile Banking

POS Point of Seals

PDA Personal Digital Assistant

PC Personal Computer

SMS Short Message Service

WAN Wide Area Networks

List of Tables

List of figure

Abstract

The growth of e-banking is worldwide, Ethiopian banks continue to conduct most of their banking transactions going to use digital or electrical payment system. The general objective of the study was to analyze the prospect and challenges of e-banking from customer perspective in commercial bank of Ethiopia specifically in south Addis Ababa district. From this general objective, three specific issues were explored. A descriptive research design was employed to conduct this study. Both primary and secondary qualitative and quantitative data were collected for the purpose of this study from the five selected *branch of customer manager's service and sales* total of ten and a representative of two in *each* branch and total of 350 respondent of e banking customers in the five selected branches. *The collected data was analyzed by using descriptive analysis such as* mean score and standard deviation, *tables and percentages. The study identified the prospect and challenge of electronic banking from customer perspective, which a customer gets as a result of using e-banking services. It also investigated the major challenges for the electronic banking services in commercial bank of Ethiopia as of infrastructural, legal and regulatory, socio-cultural, illiteracy and administrative and operational related challenges. To address various challenges identified on the study, the researcher suggests a series of measures which could be taken by government as well as commercial bank of Ethiopia. These measures include: Establishing a clear set of legal framework on the use of technology in banking industry, supporting banking industry by investing on Information communication technology, seat clear rule and regulation on e banking and infrastructure and banks needs to be focused on technological innovation competition rather than traditional bases of retail bank competition.*

Key words: - E- banking customer, challenge, prospect ATM, POS, MB and IB

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The rapidly growing information and communication technology (ICT) is knocking the front door of every organization in the world, where Ethiopian banks would never be exceptional. In the face of rapid expansion of electronic payment (E-payment) systems throughout the developed and the developing world, Ethiopian's financial sector cannot remain an exception in expanding the use of the system (Gardachew 2010, p.2).

Technological innovations play a crucial role in banking industry by creating value for banks and customers, that it enables customers to perform banking transactions without visiting a brick and mortar banking system. On the other hand E-banking has enabled banking institutions to compete more effectively in the global environment by extending their products and services beyond the restriction of time and space (Turban 2008) ,Journal of Management Information System and E-commerce, Vol. 1, No. 1; June 2014).

According to (Kaleem & Ahmad, 2008), the banking industry around the world has been undergoing a rapid change. The deepening of information technology has facilitated better track and achievement of commitments, multiple delivery channels for online consumers and faster resolution of issues has developed noticeable.

According to Nehmzow (1997), E-banking is better implemented than traditional banking methods that means ,back office processes such as paper filling, paper work processing, sorting checks and cash handling which are seen by both the customers and banks to be the most costly way to bank. Bill payments, cash withdrawals, loan applications and checks clearings as bank customer requests had been a huge task for traditional banks. Therefore, the need for innovative invention to ease the back office tasks became clear. Thus, banking computer system is invented to fulfill the need. The use of banking computer systems helps banks to transfer record and store financial information as the less expensive way. Therefore, the overall result will help to reduce banking costs. The main reasons to adopted banking are reduction of transaction processing cost and time savings.

E-banking can be also defined as a variety of platforms such as internet banking or (online banking), TV-based banking, mobile phone banking, and PC (personal computer) banking (or offline banking) whereby customers access these services using an intelligent electronic device, like PC, personal digital assistant (PDA), automated teller machine (ATM), point of sale (POS), kiosk, or touch tone telephone (Alagheband 2006, p.11).

Banks offer Internet banking in two main ways. An existing bank with physical offices can establish a Web site and offer Internet banking to its customers in addition to its traditional delivery channels. A second alternative is to establish virtual branchless or Internet-only, Bank almost without physical offices. Virtual banks may offer their customers the ability to make deposits and withdraw funds via ATMs or other remote delivery channels owned by other institutions (Furst & Nolle 2002, p.5).

According to Jensen (2003), most countries in Africa, except South Africa, have internet infrastructure only in their major cities. Lack of suitable legal and regulatory framework for E-commerce and E -payment is another impediment for the adoption of new technology in banking industry. Low literacy rate is also considers as a serious impediment for the adoption of E-Banking. And the increasingly competitive environment in the financial service market has resulted in pressure to develop and utilize alternative delivery channels.

The banking sector is undergoing rapid change from newly emerging developments, which expands economy and advances towards institutional and market completeness. Commercial banking is undergoing rapid change, as the international economy expands and advances towards institutional and market completeness. A major force behind these developments is technology, which is breaching geographical, industrial and regulatory barriers by creating new products, services and market opportunities, and developing more information and systems-oriented business (Liaoa & Cheung, 2002 Vol. 25(2), P. 204-12).

The commercial bank of Ethiopia is one of the prominent state owned bank that render conventional bank services to the public in the country with 75 years of experience. As the biggest bank in Ethiopia, CBE has more than 1445 branches that accommodate more than 22 Million customers , 8 million card holders 4.2million are active ,2.4 million mobile banking users , 47,489 internet banking and around 100,000 thousand agent banking users as of JUN 2018/19 . The

branches are controlled through 16 district offices. Moreover, CBE has presence abroad with branches in South Sudan and Djibouti. It also gives electronic payment services throughout the country by means of ATM s, POS, Mobile banking, internet banking and Agent banking. CBE has a vision to become a world class commercial bank a year 2025 and thus undertaking different E banking improvement to ensure the realization of its vision (annual report CBE, 2018/19).

As to the observation of the researcher, currently there are banks that provide E Banking service are not strongly improved that leads to the service of E banking still challenged to its customer. In order to encourage further E-banking expansion in Ethiopia, better understandings of the challenges affecting the services are thus critical. By gaining, an in-depth understanding of the conditions that influence expansion and realize its benefits and its strategic implications can be important in addressing the basic problems observed in E banking service delivery and exploit the potentials, the E-banking presents to the all customers of the banks. This also promotes the growth of E-Banking services in Ethiopia.

1.2 Statement of the Problem

The banking sector is undergoing rapid change from newly emerging developments, which expands economy and advances towards institutional and market completeness. Commercial banking is undergoing rapid change, as the international economy expands and advances towards institutional and market completeness. A major force behind these developments is E banking, which is breaching geographical, industrial and regulatory barriers by creating easy exchange of new products, services and market opportunities, and developing online systems-oriented business (Liaoa & Cheung, 2002 Vol. 25(2), PP. 204-12).

According to (Aladwani 2001), one of the products of global technological changes is the expansions of online banking (E-Banking). Online banking has become prevalent and employed by many financial institutions to reduce costs associated with having personnel serve customers physically, shorten processing periods, increase speed, improve flexibility of business transaction and provide better service in all. It has been identified as the fastest growing area for business and many banks are improving on use of their online banking facilities to move along with global trend.

Low literacy rate is a serious impediment for the adoption of E-banking in Ethiopia as it hinders the accessibility of banking services. For citizens to fully enjoy the benefits of E-banking they

should not only know how to read and write but also possess basic ICT literacy But risks related with security issue, lack of competition among local & foreign banks and social awareness on the E-banking system were not addressed. These are the major E banking service like: automated teller machine (ATM), point of sale (POS), internet banking, mobile banking and Agent Banking (Gardachew 2010, p.2).

Pikkarainen (2004) stated that the number of customers adopting in the use of E-banking services is low in developing countries. He explained the reason that firstly, customers need to have an access to the internet in order to utilize some E-banking facilities such as internet and mobile banking facilities.

As far as E-Banking is concerned, many researches on internet banking, mobile banking and modern service delivery channels have been done in different countries in the world. As per the knowledge of the researcher however, only a very limited number of researches have been done on E-Banking in Ethiopian Banking industry. For instance, Ayana (2010), Sintayehu, (2015), (Mohammed (2014), Wondwossen, Tsegai, (2005) and (Mattewos, 2016). Therefore, this study depends on mainly the above researches and other related studies. From the limited researches that have been done, Ayana (2014) stated that, more studies are still required to understand the relevance of E-banking in Ethiopia to identify areas in which the country legal regulation behind that inhibit the adoption and diffusion of E-banking services in the country.

In addition, Alayu, (2015) has conducted a study on the assessment of the challenges and prospects of E Banking service in case of Commercial Bank of Ethiopia; however, this study is solely concentrated on the assessment of the challenges and prospects taking a single E-banking service (ATM).

Hence, the commercial bank achieves strong and stable financial position there have been the efficiency and effective sustainability of continuous E banking improvement to designed multipurpose expansions of E- banking with different national and international organization to solve the challenge of E banking and improve its prospect from the customer perspective. The researchers' perspective in limited to a specific case and lacks an in-depth analysis of other E-banking services, provided by the bank their challenges and prospect from customer perspective. The above discussion on researches conducted on E-Banking service in the banking sector in

Ethiopia shows that inadequate information concerning the of E-banking service, customers understanding of E-banking service, and the level of customer's satisfaction, the challenges of the services in the country in general and in Commercial bank of Ethiopia in particular are still not solved and don't developed different computation among bank on the base of E banking expansion and underdevelopment of their own training and development to customer by different means like on TV, Radio and different social media, web and ICT . In order to encourage further E-banking, solve the prospect and challenge of E banking from customer perspective in Ethiopian banking industry specifically in commercial bank of Ethiopia, develop different strategies on the base of E banking challenge and prospect from customer prospective. To this end, this research is conducted to the challenges and prospect of E-Banking service from the customer perspective in Commercial Bank of Ethiopia in case of south Addis Ababa district.

1.3 Research Question

1. What is the level of customers' understanding about E-banking services provided by Commercial Bank of Ethiopia in south Addis Ababa District?

2. What prospect do customers gain from E-banking services provided by Commercial Bank of Ethiopia in south Addis Ababa District?

3. What are the major challenges of E-Banking service from the customer perspective provided by Commercial Bank of Ethiopia in south Addis Ababa District?

1.4 Objective of the Study

1.4.1 General Objective of the Study

The general objective of the study is to examine the challenges and prospect of E-Banking service from the customer perspective in commercial bank of Ethiopia in case of south Addis Ababa district.

1.4.2 Specific Objectives of the Study

- ❖ To analyze the level of customers' understanding about E-banking services provided in Commercial Bank of Ethiopia south Addis Ababa district.
- ❖ To investigate the prospect of E-banking services provided in Commercial Bank of Ethiopia south Addis Ababa district.
- ❖ To identify the major challenges of E-Banking service provided in Commercial Bank of Ethiopia in south Addis Ababa district.

1.5 Significance of the Study

In the recent years there has been explosion of electronic banking applications. The emergence of new forms of technology has created highly competitive market conditions for bank service providers. It should also be note that E-Banking could bring about various prospect for banks and their customers as well. It is obvious that cost savings, efficiency, gaining new segments of customers, improvement of the bank's reputation and better customer services and satisfaction are primary benefits to banks. The success in E-Banking is achieved with tailored financial products and services that fulfill customer' wants, preferences and quality expectations. The use E banking service from the customer perspective is the main challenge of E-Banking users. The outcomes and results of this research, therefore, would be potential value to financial institutions, particularly banks to:

- Understand the challenges of E banking and its advantages in providing service to their customers.
- Help banks to identify key challenges that inhibit expansion of E-Banking service and take measures towards provision of quality services.
- Helps management of Commercial Bank of Ethiopia bankers to solve their challenge on the work place, bank managers and any relevant decision maker to be aware of customer perception on the challenges of electronic banking services facilities of the bank.
- Finally, the findings also help other researchers who will be interested to conduct further study on E-Banking banking service.

1.6 Scope of the Study

The study was confined to examine the challenges and prospect of E-Banking service from the customer perspective in commercial bank of Ethiopia in case of south Addis Ababa district. For the sake of uniformity and due to their more involvement in E banking, data is obtained only from commercial bank of Ethiopia in south Addis Ababa in selected branch. The study involves internal and external customers who use the E-Banking facilities.

1.7 Limitation of the Study

Concerning the limitation of research, only CBE in south Addis Ababa were address in this study due to financial and time limitations. Due to time and resource constraints, the study did not represent comprehensive analysis of the challenges hindering E- banking service. The findings of the research was presented in this paper assume that all responses of the respondents are rationally filled. However, it may not be free from the limitations of bias. Finally, shortage of secondary data like restrictions to access different internal data literatures was some of the limitations of the author would face. Therefore, the outcome of this study understood considering this limitation.

1.8 Organization of the paper

The study is organized in to five chapters in which chapter one deals with background of the study, statement of the problem, objective of the study, significance of the study and scope of the study limitation of the study. Chapter two is to the review of related literature consisting theoretical review and empirical review. A chapter three is covers the research approach and design, population, sample size, sampling procedures, data sources, and data collect method and the data analysis method. Chapter four is including finding and discussions part of the study. The last chapter is incorporating the summery, conclusion and recommendation part of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Theoretical Literature Review

2.1.1 Definition of E-Banking

The concept of electronic banking defined in several ways; for instance, Daniel (1999), defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery plat forms that can be use with different terminal devices such as personal computers and mobile phone with browser or desktop software, telephone or digital television. On the other hand, the term "electronic banking" or "E-banking" covers both computer and telephone banking. It refers to the use of information and communication technology by banks to provide services and manage customer relationship more quickly and most satisfactorily.

According to (Singh & Malhotra (2004), E-banking defined as the deployment of banking services and products over electronic and communication networks directly to customers. These electronic and communication networks include Automated Teller Machines (ATMs), direct dial-up connections, private and public networks, the Internet, televisions, mobile devices and telephones. Among these technologies, the increasing penetration of personal computers, relatively easier access to the internet and particularly the wider diffusion of mobile phones has drawn the attention of most banks to E-banking. E-banking includes the systems that enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet or mobile phone. Customers access E-banking services using an intelligent electronic device, such as a personal computer (PC), personal digital assistant, automated teller machine (ATM), kiosk, or Touch Tone telephone. E-banking refers to the provision of retail and small value banking products and services through electronic channels. Such products and services can include deposit-taking, lending, account management, the provision of financial advice, electronic bill payment, and the provision of other electronic payment products and services such as electronic money.

Goodhue and Thompson (1995) proposed the TTF model that extends the TAM by considering how the task affects uses. More specifically, the TTF model describes that a technology will provide an advantage to individual performance if it is well utilized, and technology adoption depends partly on how well the new technology fits with the supported task.

Goodhue and Thompson (1995) further stated that technology is perceived as a tool with which people do. Tasks are the actions of turning inputs into outputs done by individuals. Task characteristics such as variety, difficulty, and interdependence are related to an individual's dependence on using technologies. Thus, if the individuals think that the technology can help to perform well, they will perceive it as useful and important to them. In the context of e-banking, task-technology fit refers to the ability of technology to assist employees in performing their tasks on the job. The higher the fit degree, the better performance may result. Specifically, TTF corresponds to the relationship of matching among task characteristics and employee abilities.

Moreover, Goodhue (1995) focused on the "user domain of IT-supported decision making". Based on this task domain, the TTF model discovered three main subtasks of workers who are using quantitative information to perform their tasks. The subtasks include: 1) identifying needed data, 2) accessing identified data, and 3) integrating and interpreting accessed data. Furthermore, Goodhue (1995) identified several dimensions for every subtask which is measured by questionnaire items I the development of TTF. Obviously, Task-Technology Fit, in turn, affects the outcome either Performance or Utilization. TTF models state that IT will be implemented if the available functions support or fit the user activities. Logically, experienced users will choose devices and methods that enable them to complete the task with the most net benefit. On the other hand, Information Technology which does not offer sufficient benefits will not be used.

2.1.2 Types of E-Banking

There are many electronic banking delivery channels to provide banking service to customers ATMs, Local Area Networks (LAN), Wider Area Networks (WAN), credit cards, electronic point of sales (POS) systems, imaging systems, information filling systems, integrated banking system and Client Information Filling (CIF) systems. Among this ATM, POS, Mobile banking, internet banking and agent banking are the most widely used in all banks of Ethiopia specifically in commercial bank of Ethiopia and discussed below.

2.1.2.1 AUTOMATED TELLER MACHINE (ATM)

According to (Wakefield, 2010), ATM is electronic terminals that a bank almost virtually any time. For customers to withdraw cash, make deposits, or transfer funds between accounts, they generally insert an ATM card and enter their PINs ATM has a positive response and located on site in all branch offices and off site in strategic places in the main towns around the country. It is described as a combination of a computer terminal, record-keeping system and cash vault in one unit, permitting customers to enter the bank's book keeping system with a plastic card containing a Personal Identification Number (PIN) or by punching a special code number into the computer terminal linked to the bank's computerized records 24 hours a day.

According to, (Abor, 2004), define ATM to withdraw cash, or transfer funds between accounts; a consumer needs an ATM card and a personal identification number. Once the customer login, access to transactions are displayed on the screen. It offers several retail banking services to customers. They are mostly located outside of banks, and are also found at airports, malls, and places far away from the home bank of customers. They were introduced first to function as cash dispensing machines.

2.1.2.2 Mobile Banking

Mobile banking (also known as M-Banking) is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA). The earliest mobile banking services offered over SMS, a service known as SMS banking. Mobile banking used in many parts of the world with little or no infrastructure, especially remote and rural areas. This aspect of mobile commerce is also popular in countries where banks can only be found in big cities, and customers have to travel several miles to the nearest bank. The scope of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information (Tiwari & Buse, 2007), Journal of Management Information System and E-commerce, Vol. 1, No. 1;p.4, June 2014.

2.1.2.3 Internet Banking

According to (Ahanger, 2011), the term „internet banking" is not very developed and mature rather it has a history lengthened over last 3 decades. In the late 1980s, the notion „online" became popular. Since 1980s, the innovations in the banking system have started and are still continuing.

The term of E-banking often refers to online banking/Internet banking which is the use of the Internet as a remote delivery channel for banking services with the help of the internet; banking is no longer bound to time or geography. Consumers all over the world have relatively easy access to their accounts 24 hours per day, seven days a week (Furst & Nolle 2002, p.5).

According to Booz, Allen & Hamilton (1999), "Internet banking" refers to systems that enable bank customers to access accounts and general information on bank products and services through a personal computer (PC) or other intelligent device. Internet banking products and services can include wholesale products for corporate customers as well as retail and fiduciary products for consumers. Ultimately, the products and services obtained through Internet banking may mirror products and services offered through other bank delivery channels. Some examples of wholesale products and services include Cash management, wire transfer, automated clearinghouse transactions, Bill presentment and payment. Some of the market factors that may drive a bank's strategy to use internet banking include the following: Competition - competitive pressure is the chief driving force behind increasing use of internet banking technology, cost reduction and revenue enhancement.

2.1.2.4 Point Of Sale (Pos)

The system allows consumers to pay for retail purchase with a check card, a new name for debit card. This card looks like a credit card but with a significant difference. The money for the purchase is transferred immediately from account of debit card holder to the store's account and Point of sale (POS) also sometimes referred to as point of purchase (POP) or checkout is the location where a transaction occurs. A 'checkout' refers to a POS terminal or more generally to the hard ware and software used for checkouts, the equivalent of an electronic cash register. A POS

terminal manages the selling process by a salesperson accessible interface (Malak 2007), Journal of Management Information System and E-commerce, Vol. 1, No. 1;p.4 , June 2014.

2.1.2.5 Agent Banking

According to National Bank of Ethiopia Agent means "a person engaged in a commercial/ business activity and has been contracted by a financial institution to provide the services of the financial institution on its behalf" and Agent banking means "the conduct of banking business on behalf of a financial institution through an agent using various service delivery channels and Agent banking is becoming a substitute channel to deliver banking services to the unbanked society and for people who are located in geographically remote areas. It highly depends on the use of information technology, specifically the mobile technology. Agent banking permits financial institutions to serve the disadvantaged and unbanked societies. This technology allows customers to access their account at nearby agent (retail shops, post offices, supermarkets and others). The agent provides customers with basic banking services including account opening, cash withdrawal, fund transfer, cash deposit and other simple services. In return the agent generates commission for each service it provides" (NBE, 2012).

According to, (Wiki for banking agent, 2015), Banking agents are usually equipped with a combination of POS card reader, mobile phone, barcode scanner to scan bills for bill payment transactions, PIN pads, and sometimes personal computers (PCs) that connect with the bank's server using a personal dial-up or other data connection. Clients that transact at the agent use a Magnetic Stripe (Mag-Stripe) bank card or their mobile phone to access their bank account or e-wallet respectively. Identification of customers is normally done through a PIN. With regard to the transaction verification, authorization, and settlement platform, banking agents are similar to any other remote bank channel CBE-BIRR is an agent banking service introduced by Commercial Bank of Ethiopia in accordance with NBE directive number FIS/01/2012. It was in testing phase from June 2017 to December 2017 and became live in December 12, 2017. Like other agent banking service providers, CBE-BIRR customers can transfer money to subscribed or unsubscribed users, deposit and withdraw cash from agents, buy airtime directly without scratching mobile cards, pay for goods and services.

2.1. 3 Evolution of E Banking And E-Banking System In Ethiopian Banking Industry

Electronic innovation in banking industry can be traced back to 1970, when the computerization of financial institutions gained momentum (Malak 2007.Innovative banking has grown since then, aided by technological developments in the telecommunications and information technology industry. The early decade of the 1990s witnessed the emergence of automated voice response (AVR) technology. By using the AVR Technology, banks could offer telephone banking facilities for financial services. With further advancements in technology, banks were able to offer services, through PC owned and operated by costumers at their convenience, through the use of intranet propriety software. The users of these services were, however, mainly corporate customers rather than retail ones (Sohail & shanmugham 2003), Journal of Management Information System and E-commerce, Vol. 1, No. 1; June 2014.

The appearance of E-banking in Ethiopia goes back to the late 2001, when the largest state owned, commercial bank of Ethiopia (CBE) introduced ATM to deliver service to the local users. In addition to eight ATM Located in Addis Ababa, CBE has had Visa membership since November 14, 2005. But, due to lack of appropriate infrastructure it failed to reap the fruit of its membership. Despite being the pioneer in introducing ATM based payment system and acquired visa membership, CBE Lagged behind Dashen bank, which worked aggressively to maintain its lead in E-payment system. As CBE continues to move at a snail's pace in its turnkey solution for Card Based Payment system, Dashen Bank remains so far the sole player in the field of E-Banking since 2006. (Annual report of bank 2010).

Dashen bank, a forerunner in introducing E-banking in Ethiopia, has installed ATMs at convenient locations for its own cardholders. Dashen’s ATM is available 24 hours a day, seven days a week and 365 days a year providing service to Debit Cardholders and International Visa Cardholders coming to the country. At the end of June 2009, Dashen bank has installed more than 40 ATMs in its area branches, university compounds, shopping malls, restaurants and hotels. In the year 2011 the payment card services have witnessed significant strides, Dashen’s ATM service expanded to 70 and 704 POS terminals (Annual report of the bank 2011).

Available services on Dashen Bank ATMs are: Cash withdrawal, Balance Inquiry, Mini statement, Fund transfer between accounts attached to a single card and Personal Identification Number (PIN) change. Currently, the bank gives debit card service only for Visa cards. Dashen bank clients can withdraw up to 5,000 birr in cash and can buy goods and services up to 8,000 to 13000 birr per day. Expanding its leadership, Dashen Bank has begun accepting MasterCard in addition to Visa cards. Dashen won the membership license from MasterCard in 2008, Journal of Management Information System and E-commerce, Vol. 1, No. 1; June 2014.

Harnessing its leadership with advanced banking technology, Dashen Bank signed an agreement with iVery, a South African E-payment technology company, for the introduction of mobile commerce in April 21, 2009. According to the agreement, iVery Payment Technologies has licensed its Gateway and MiCard E-payment processing solution to Dashen Bank. Dashen's Modbirr users can transfer 500 birr to other Modbirr users in 24 hours a day. This would make Dashen Bank the first private bank in Ethiopia to acquire E-commerce and mobile merchant transactions (Amanyehun 2011). Although Dashen's new technology is one step ahead in that it allows transfer of funds from one's account to others, the first ever E-banking gateway was signed between Ethiopian Commodity Exchange (ECX) and Dashen Bank and CBE. The E-banking system being developed with both banks is designed to give a secure electronic data sharing gateway between clients, banks and ECX, by facilitating a smooth transaction (Abiy 2008), Journal of Management Information System and E-commerce, Vol. 1, No. 1;p.4, June 2014.

Zemen Bank, the only Ethiopian bank anchored in the idea of single branch banking, by launching full-blown internet banking, a service which is new to Ethiopian banking industry in the year 2010. The bank tested the venture through its first phase of the online service, and now it is already started the full-fledged version, which enable customers to make online money transfer freely. Previously, the online banking service, delivered by the bank, only gave access to bank statements and exchange rate information. The new and never-been-tried service proposed by the bank is to include free account money transfer, corporate payroll uploading system where employers could upload payroll to the system and make payments to individual worker's accounts online and online utility bill settlement system, when utility companies are ready(Annual report NBE, 2010).

The agreement signed by three private commercial banks to launch ATM and POS terminal network, in February 2009 is welcoming strategy to improve electronic card payment system in Ethiopia. Three private commercial banks - Awash International Bank S.C., Nib International Bank S.C. and United Bank S.C. have agreed in principle to establish an ATM network called Fettan ATM network. If everything goes as planned, Fettan ATM will install over 140 ATM machines and over 340 POSs across Ethiopia. There will be one ATM at every branch of the consortium banks, all domestic airports serviced by Commercial service, shopping complexes and merchants. The agreement is the first significant cooperation between competing banks in Ethiopia, which others should be encouraged to follow as there is no single bank in Ethiopia that can afford to provide Extensive geographical coverage and access (Annual report NBE,2009).

2.1.4 Role of E-Banking in the Banking Sector

Vaidya (2011), argue that emerging technology would enable to create new ways of lead generation, prospecting as well as developing deep customer relationship and electronic banking would achieve superior customer experience with bi-directional communications. In his view ascertains that access to basic financial services, ability to save, transfer and also invest small amounts of money can make a huge difference to people around the world.

Easier Expansion: Traditionally, when a bank wanted to expand geographically it had to open new branches, thereby incurring high start up and maintenance costs. E-channels, such as the Internet, have made this unnecessary in many circumstances. Now banks with a traditional customer base in one part of the country or world can attract customers from other parts, as most of the financial transactions do not require a physical presence near customers living/working place.

Increased Revenues: Increased revenues because of offering E-channels are often reported, because of possible increases in the number of customers, retention of existing customers, and cross-selling opportunities. Whether these revenues are enough for reasonable return on investment (ROI) from these channels is an ongoing debate. It has also allowed banks to diversify their value creation activities. E-banking has changed the traditional retail banking business model in many ways, for example by making it possible for banks to allow the production and delivery of financial services to be separated into different businesses. This means that banks can sell and manage services offered by other banks (often-foreign banks) to increase their revenues. This is an

especially attractive possibility for smaller banks with a limited product range. E-banking has also resulted in increased credit card lending, as it is a sort of transactional loan that is most easily deliverable over the internet.

Cost Reduction: The main economic argument of E-banking so far has been reduction of overhead costs of other channels such as branches, which require expensive buildings and a staff presence. It also seems that the cost per transaction of E-banking often falls more rapidly than that of traditional banks once a critical mass of customers is achieved.

Enhanced Image: E-banking helps to enhance the image of the organization as a customer focused innovative organization. This was especially true in early days when only the most innovative organizations were implementing this channel. Despite its common availability today, an attractive banking website with a large portfolio of innovative products still enhances a bank's image. **Strengthening the public support: according to,** in developing countries, in the previous year's most E-finance initiatives have been the result of joint efforts between the non-public and public sectors. If the public sector does not have the necessary resources to implement the projects it is important that joint efforts between public and non-public sectors along with the multilateral agencies like the World Bank, be developed to enable public support for E-finance related initiatives Trust Issue.

2.1.5 Challenges of E- Banking Service

Mohammad O. Al-Smadi (2012) noted that banks' customers' are not confident in electronic banking services. Customers are safety seeker, and they want to keep away from risks. This is because electronic banking services are in inherently risky environment due to the absence of personal contact, physical product evaluation, warranties, or contracts and the customers usually have difficulties in asking for compensation when transaction error occurs. In addition, this indicates that customers might be concerned about the length of time involved in waiting for transaction or learning how to operate it. Thus, this may explain why many customers refuse to using E-banking services. Similarly the interview finding confirmed that customer are not satisfied as expected because their trust on the technology, uneasiness to use the service because of language problem, their demographical problem and also the customers who are using the service their first choice is the traditional banking if the waiting line is too long they go to use the ATM machine and

also they talk each other when face a problem how bad the service and stop using the service is instead of asking the bank for a solution.

Implementation of global technology: There is a necessity to have a quite level of infrastructure and good human capacity building prior the developing countries may adopt global technology for their local needs. In developing countries, many clients either do not trust or do not access to the needful infrastructure that is to be able to process electronic payments.

Security Issue: is one of the important issues for E-banking. In the case of any monetary damages to the clients, the bank's reputation is spoiled. The security risk is the main threat from the hackers, who can use several types of information of public peoples for reason of criminal activity. While sometimes hackers hike, the passwords of the clients cause to theft their money or some hidden or secret information.

Banking organizations have been delivering electronic services to consumers and businesses remotely for years. Electronic funds transfer, including small payments and corporate cash management systems, as well as publicly accessible automated machines for currency withdrawal and retail account management, are global fixtures. However, the increased world-wide acceptance of the Internet as a delivery channel for banking products and services provides new business opportunities for banks as well as service benefits for their customers.

The speed of change relating to technological and customer service innovation in E banking is unprecedented. Historically, new banking applications were implemented over relatively long periods of time and only after in-depth testing. Today, however, banks are experiencing competitive pressure to roll out new business applications in very compressed time frames, often only a few months from concept to production. This competition intensifies the management challenge to ensure that adequate strategic assessment, risk analysis and security reviews are conducted prior to implementing new e-banking applications.

In addition, an exploratory study that was conducted in Zimbabwe by Chitura Tofara(2008) indicated that incompatibility with the existing system, cost of implementation, security concerns, lack of expertise, inadequate legislation and consumer acceptance are the major challenges of e-banking in the country's banking industry. The same charges may also face by Ethiopian banking industries to implement the E banking facilities. But the good thing is that the benefit out weighted

the challenges in many parameters. Specially country like Ethiopia which have a huge potential customers for such service coupled with a fast growing economy will be the main advantages of the banking service to offer different products with the help of technology to their customers.

Lack of Technological Infrastructure – the implementation of e-payment is been impeded by unavailability of ICT infrastructure. Most rural areas where majority of small and medium scale industries are concentrated have no access to internet facilities and ICT Equipment - Costs – where available, the cost of ICT is a critical factor relative to per capital income. This makes the cost of entry higher compared to developed countries

Regulatory and Legal Issues – inexistence of proper legal and regulatory framework.

Non-readiness of banks and other stake holders (acceptability) – even though some have shown impressive willingness, some banks are still not fully ready to for this new payment regime.

Resistance to changes in technology among customers and staff due to:-

- Lack of awareness on the benefits of new technologies

- Lack of trained personnel in key organizations and

- Tendency to be content with the existing structures

2.1.6 Prospect of E- Banking service

According to Sergeant (2000), the benefits of E-banking are manifold and are to be seen from the point view of the banks themselves, customers and even the regulators: for banks, E-banking brings different and arguably lower barriers to entry; opportunities for significant cost reduction; the capacity to rapidly reengineer business processes; and greater opportunities to sell cross border. For customers, the potential benefits are more choice; greater competition and better value for money; more information; better tools to manage and compare information; and faster service.

From customers point of view: Bank Away (2001); Gurău (2002), explained about the main advantages of E-Banking for customers as follows: Reduced costs in accessing and using the banking services. Increased comfort and timesaving: the transactions can be made 24 hours 7

day, without requiring the physical interaction with the bank. Quick and continuous access to information: Corporations will have easier access to information as, they can check on multiple accounts at the click of a button. Better cash management: E-banking facilities speed up cash cycle and increases efficiency of business processes as large variety of cash management instruments is available on internet sites. Convenience: All the banking transactions can be performed from the comfort of the home or office or from the place, a customer wants to From banks, point of views the main advantage of e- banking for banks as follows Attracting High Value Customers: E-Banking often attracts high profit customers with higher than average income and education levels, which helps to increase the size of revenue streams. For a retail bank, e-banking customers are therefore of particular interest, and such customers are likely to have a higher demand for banking products.

Robinson (2000), believe that supply of internet banking services enable bank to establish and extend relationship with customers. Benefit for the users are numerous as well and include convenience of the services, lower cost of transaction and more frequent monitoring of accounts among others. The basic characteristics of internet banking are to help bank perspective to save costs, to save time and money, to minimize the likelihood committing errors, to fulfill undergraduate student's convenience, to lower the transaction costs.24/7 availability: The banking apps ensure 24/7 availability, unlike the banks. If you want to transfer a certain amount beyond the banking hours, you can easily do that with the help of the mobile application, as the application provide 24/7 availability. Usually the banks are closed on Saturdays and Sundays, and you are not able to transfer the money on these days even if it is urgent, you have to wait for the next working day, but with the mobile application you can even transfer money on Saturdays and Sundays, as they are available and accessible 24/7.

In addition, according to (Mahdi, 2004) e- banking has benefits to economy: Electronic Banking as already stated has greatly serviced both the community and the banking industry. This has resulted in creation of a better enabling environment that supports growth, productivity and prosperity. Besides many tangible benefits in the form of reduction of cost, reduced delivery time, increased efficiency, reduced wastage, banking electronically controlled and thoroughly monitored environment and discourage many illegal and illegitimate practices associated with banking industry like money laundering, frauds and embezzlements. Further E-banking has helped

banks in better monitoring of their customer base. This is a useful tool in the hand of the bank to device suitable commercial packages that are in conformity with customer needs. As e-banking provide opportunity to banking sector to enlarge their customer base, a consequence to increase the volume of credit creation which results in better economic condition. Besides, E-banking has also helped in documentation of the economic activity of the masses.

2.2 Empirical Literature Review

Different researchers in different parts of the world conduct some related studies. However, in Ethiopia there are limited numbers of studies conducted in Ethiopia on E-banking technology. Gardachew (2010), conduct a research on the opportunities and challenges of E- banking in Ethiopia. The study focused on analyzing the status of electronic banking in Ethiopia and investigates the main challenges and opportunities of implementing E-banking system. The researcher conducted a survey on the existing style of banks and identifies some challenges of using electronic banking system like, for electronic commerce and electronic payment lack of suitable legal and regulatory framework, political instability in neighboring countries and high rate of literacy.

Wondwossen and Tsegai (2005) also studied the challenges and opportunities of E-payments in Ethiopia; the objective of the study was E-payment practices in developing countries. The authors employed interview and on site observation to investigate challenges to E-payment in Ethiopia and found that, the main obstacles to the development of E-payments are, lack of customers trust in the initiatives, unavailability of payment laws and regulations particularly for E- payment, lack of skilled workers and frequent power disruption. According to Wondwossen and Tsegai (2005), an adequate legal structure and security framework could foster the use of E-payments, which is contradicting with the finding of the previous study.

The study conducted by Daghfous and Toufaily (2007), on the success and critical factors in adoption of electronic banking by Lebanese banks. The research was conducted on the factors that can lead to success the adoption of electronic banking and the other factors that can constitute as barriers to its adoption, it focuses on the organization, structural and strategic factors which can accelerate or, on the contrary, slow the adoption of this electronic mode of distribution and communication by the banks, through analyzing the case of the Lebanese banks. the result of this

study shows that the organizational variable (bank size , functional divisions , technical staff , technical infrastructure , perceived risks) are variable which exert significant exert on the adoption of electronic banking , also the result shows bank which are developing in the international scale are more likely to adopt electronic banking innovation . Finally the result of the study indicated that extent of penetration of electronic banking in the growth phase of an emerging market has an important correlation with the improvement of commercial performance.

Nupur , (2010) conducted a study focusing on E- banking and customer satisfaction in Bangladesh .The main objective of the study was to measure customer satisfaction on E-banking service delivery . He adopted SERVQUAL method to collect necessary data. The finding of the research indicated that, the measured variables; reliability, empathy, responsiveness, assurance and tangibility have relationship with E-banking customer service.

In addition, as investigated by Alhaji Ibrahim H. (2009) using exploratory study, the following are among the critical challenges for the adoption of E-banking in Nigeria: Lack of Technological Infrastructure – the implementation of E-payment is been impeded by unavailability of ICT infrastructure. Most rural areas where majority of small and medium scale industries are concentrated have no access to internet facilities. ICT Equipment Costs – where available, the cost of ICT is a critical factor relative toper capital income. This makes the cost of entry higher compared to developed countries. Regulatory and Legal Issues – inexistence of proper legal and regulatory framework, Non-readiness of banks and other stake holders (acceptability) – even though some have shown impressive willingness, some banks are still not fully ready to for this new payment regime. Resistance to changes in technology among customers and staff due to: Lack of awareness on the benefits of new technologies, Fear of risk among banks, Lack of trained personnel in key organizations and Tendency to be content with the existing structures, People are resistant to new payment mechanisms, Security – where disclosure of private information, counterfeiting and illegal alteration of payment data may be rampant, frequent connectivity failure in telephone lines, frequent power interruption.

Okibo and Wario (2014); conducted on a study on effects of E- banking on growth of customer base in keys banks. The study focused on the effects of electronic banking on customer base expansion. The finding of the study indicated that electronic banking service of a bank has

influences on the customer base of expansion .on the other hand their study found that E- banking is less reliable and higher costs per transaction .on top of that the finding indicated that, the service is not secured and there is possibility of fraud.

Bezawit kassaye (2017); conducted on a study on assessment on challenges and prospect of E banking service in the case of awash bank using descriptive study. The finding of the research indicated that, customers mentioned elimination of time constraint and cost effective way of conducting banking transactions as benefits. Faster way of conducting transactions, better management of transactions and convenience in terms of 7 days and 24 hours were also stated as benefits that customers gained from use of E-Banking. Customers also mentioned several advantages for using E-banking services. The most dominant reasons were easy access to account, ability to process more financial transactions at ease and avoidance of branch queues associated with the traditional way of banking. Others advantages stated by the customers included access of account from abroad, 24/7 availability and easier financial management.

Beza Assefa (2017); conducted on a study on assessing the effect of E-banking Service in customer satisfaction using descriptive study: In CBE Selected City Branches. The study focused on the effect of E-banking service on customer satisfaction. The finding of the research indicated that, With regard to customer understanding of the service. Even though the bank applies the E banking service; still customers' satisfaction is low because they are not using the service as they should and can't benefit from it. Also the researcher concluded on most customers respond they don't trust the services and also majority of the customers level of education is secondary school which makes it hard for them to understand and use the service because some of the service require the understand of English language. Most customers respond that they have good relation after starting the service with the employees' even if the skill & knowledge of the employees' when a problem arises is poor. Finally the researcher concluded that customers are not yet satisfied with the service ease of use and the none-existence of language option on mobile banking service, lack of trust on the technology, the service frequently being out of service because of power interruption, network failure and lastly the employees' lack of knowledge and skill to solve problems that happen when using e-banking service. In addition, the researcher stated that customer satisfaction is the critical problem related to support customers to effectively use the service. Majority of the customers cannot access their account because of network failure, the lack of knowledge of using the

machines and new technologies in the case of ATM, POS and Mobile banking services, the amount of money withdrawn within a day using ATM is limited, the analysis revealed that the customers don't have trust in E-banking service and unfriendliness of the system to be used which makes most of the customers want to use the ordinary banking service even if they are not satisfied about the long waiting line. Moreover, the one that are using the e-banking service faces errors in the service and don't get money out of business hours when they need the service the most due to the machine being out of cash. In addition the researcher mentioned about the main practice of e-banking among those banks that are providing the service have been for balance inquiry, cash withdrawal, statement printing, PIN change, purchase goods or services.

Sintayehu yitbarek, (2015) conducted the study on the impact of E-banking service on customer satisfaction the case of selected commercial bank in Addis Ababa. He stated that Customer satisfaction is the major factor contributing to the success of service sector. E-banking has become a major facility sought after by the existing and potential customers. All the service sectors depend on customer and their satisfaction and the banks are no exception. One of the ways for achieving high customer satisfaction and gaining the loyalty of customers is for banks to offer high quality service for banks to offer high quality services.

According to Garedew worku (2010), conduct a research on the opportunities and challenges of E-banking in Ethiopia stated, Key Challenges for E-Banking applications are: Low level of internet penetration and poorly developed telecommunication infrastructure: Lack of infrastructure for telecommunications, Internet and online payments impede smooth development and improvements in E-Banking in Ethiopia. Most rural areas of the country, where the majority of small and medium businesses are concentrated, have no Internet facilities and thus are unable to engage in E-Banking activities. Lack of suitable legal and regulatory framework for E-commerce and E-payment: Ethiopian current laws do not accommodate electronic contracts and signatures. Ethiopia has not yet enacted legislation that deals with E-commerce concerns including enforceability of the validity of electronic contracts, digital signatures and intellectual copyright and restrict the use of encryption technologies. Political instabilities in neighboring countries: Political and economic instabilities in Somalia, Southern Sudan, and Eritrea are threatening traits that do not provide a very conducive environment for E-Banking in Ethiopia. Political instabilities inevitably disturb smooth operations of business and free flow of goods and services. High rates of illiteracy: Low

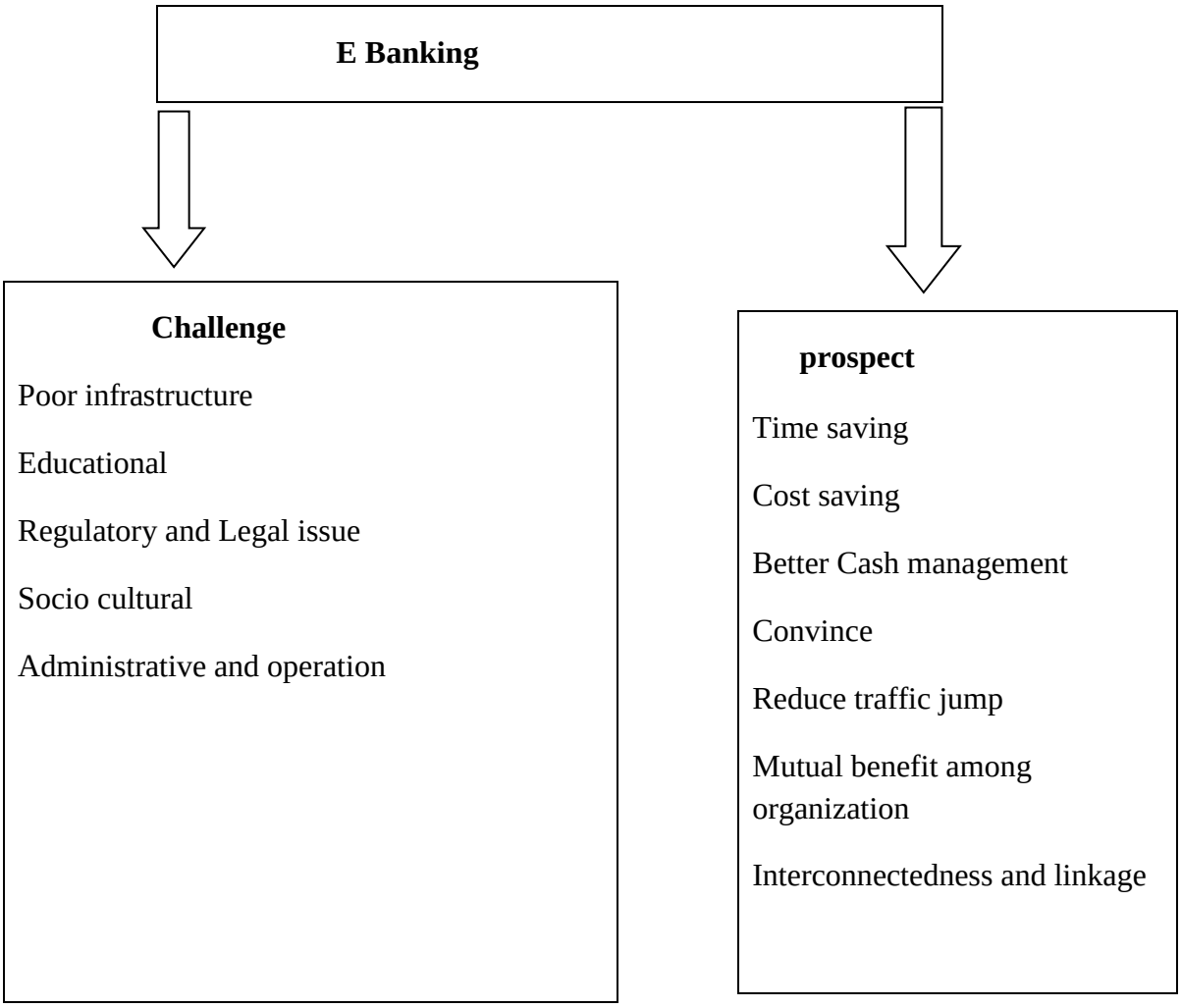
literacy rate is a serious impediment for the adoption of E-Banking in Ethiopia as it hinders the accessibility of banking services. For citizens to fully enjoy the benefits of E-Banking, they should not only know how to read and write but also possess basic ICT literacy. High cost of Internet: The cost of Internet access relative to per capita income is a critical factor. Compared to the developed countries, there are higher costs of entry into the E-commerce market in Ethiopia. These include high start-up investment costs, high costs of computers and telecommunication and licensing requirements. Absence of financial networks that link different banks (Banks are not yet automated): Most of the banking-transactions currently taking place use credit and debit cards supplied by Visa and MasterCard. For conducting E-Banking, the use of credit or debit cards is mandatory thus requiring the need for specialized systems, which are not currently available.

Meron Tadesse (2016) studied t on the assessment of the opportunities and challenges for the adoption of e-banking service in case of selected privet bank. ATM and debit card services, internet banking, mobile banking and other electronic payment systems are at infant stage. The most dominant e-banking channel among those banks, which are currently providing the service is ATM card, which is the first generation of electronic banking channel, furthermore, only few clients have access to E-banking channel such as internet and mobile banking. Therefore, from this it is possible to conclude that banks are evolving at a very slow rate in adopting new technologies. This is due to low level of ICT infrastructure and lack of legal frame works at NBE, which can initiate banking industry to implement the system. In addition to the above two basic factors affecting adoption of E-banking in Ethiopia, Result of the study also shows that lack of trust on the use of technological adoption are other major barriers for the system. Lack of competition among local and foreign banks is also another challenge for the adoption of E-banking in the country. Technical and managerial skills available in Ethiopian banks for the adoption of E-banking are also limited. These are influencing the choice of technology in Ethiopian banks. On the other hand, the study reveals that the benefits of technological innovation are well known to the banks and represent a formidable force to drive adoption of the system. In general perceived Ease of use is one of the basic benefits for E-banking, in which it enables bank staff to perform banking activities in a simple way.

2.3 Conceptual Framework

After conducting the interviews, completing a literature survey, and defining the problem, one is ready to develop a theoretical framework. A theoretical framework is a conceptual model of how one theorizes or makes logical sense of the relationships among the several factors that have been identified as important to the problem (Sekaran, 2003). This will help the researcher: to understand the relationship among the different variables of interest to the research and to develop testable hypothesis to examine if the theory formulated is valid or not.

Figure 1. Conceptual framework



Source: Developed by the author, 2019

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

Creswell (2003) defines a research design as the scheme, outline, or plan that is used to generate answers to research problems. Further Dooley (2007) notes that a research design is the structure of the research that serve as the glue that holds all elements of a research project together. This implies the fact that it gives direction and systematizes the research as it involves the process, which the investigator followed from the inception to completion of the study.

Descriptive research design is casting light on current issues or problems through a process of data collection that enables them to describe the situation more completely than was possible (Fox & Bayat, 2007). The primary aim of the study was to examine the prospect and challenges of E-Banking services from the customer perspective in the case of CBE in south Addis Ababa district. The researcher hence, selected descriptive research design to better explore the current problems that this particular study addresses. Hence, descriptive research design was found appropriate because it involves collecting data in order to answer important questions concerning the status of subjects under study.

3.2. Research Approach

The approach that was followed for this research is a mixed approach where both qualitative and quantitative methods are used. Qualitative approach is employed to describe the actual practices of e banking in selected branch and the quantitative one to analyze the quantitative data using possible statistical tools. According to (Creswell, 1994), qualitative research approach is fundamentally interpretive which means the collected data are described qualitatively using narrative statement.

3.3 Target Population, Sample size and Sampling Technique

3.3.1. Target Population

According to Saunders, (2007) population is the whole set of the universe from which a sample taken. Target population refers to the larger population to which the researcher ultimately would like to generalize the results of the study (Mugenda, 2003). Total population of this study constitutes 393 E-banking customers who have used E-banking services in Commercial Bank Ethiopia and 10 customer service manager sales and service of five selected branch.

3.3.2 Sample Size and Sampling Technique

Branches of Commercial Bank of Ethiopia found in Addis Ababa city are classified into four districts: North, East, South, and West districts. For the purpose of the study, the study was employed multi-stage purposive sampling techniques in order to identify representative samples respondents. Primarily, from four districts, the researcher was purposively selected south Addis Ababa district. In selecting this district, the researcher was considered the data gained from Commercial Bank of Ethiopia Website and identified the following justifications. Firstly, the district has the highest number of customers, and annual transactions in comparison with the remaining districts. Secondly, it has all branches found in the city. Finally, the district is in proxy to researcher's resident that helped in access information easily. This is due to the reason that the branches found in this area has the highest number of E-banking users in comparison to others branches of the district. Although there are 99 CBE branches in south Addis district the researcher has selected five branches purposively. There are reasons that the researcher considered in selecting these five branches from south Addis district on base of continuous five year over all performance. Firstly, these branches are classified as fourth grade branches and special branches implying that they have the highest daily and annual transaction. In second place, these branches host the highest number of E-banking users from the remaining branches found in south Addis district. Finally, as these branches are the largest in years of experience related with other branches in south Addis Ababa district , it is important to focus on them to management financial and time resources efficiently. Besides, it provided advantage in accessing data easily. Finally, the researcher was used randomly sampling technique to select the study

participants in five selected branch in south Addis Ababa district of commercial bank of Ethiopia.

Number of active E-banking customers in the selected branches

No	Branch name	No of E banking customer							
		MB	IB	CBE BIRR	Total e banking	MB	IB	CBE BIRR	Total active E banking
1	Kirkos kebele	30,000	200	5000	**35,200**	1500	40	2000	**3,540**
2	Mexico	25,000	250	6000	**31,250**	1200	25	2500	**2,725**
3	Sengatera	40,000	300	8000	**48,300**	1800	30	3000	**4,830**
4	Finfine	50,000	400	15000	**65,400**	2000	40	4000	**6,040**
5	Lideta	25,000	350	8000	**33,350**	1600	20	2600	**4,220**
Total		**170,000**	**1500**	**42,000**	**213,500**	**8,100**	**155**	**14,100**	**22,355**

Source: CBE annual report, 2018/19

From the above data, the researcher was selected those customers who have actively using E banking services. Hence, customers who have used E -banking services of CBE part of the population of the study. Besides, the study was selected 10 customer service managers seals and customer service manager service (selected due to their administrative and technical knowledge of the issue under the study) of those five branches purposively in order to conduct key informant interviews. As it is stated in the above paragraphs, the study was considered E -banking customers and customer service manager of the above selected branches. Therefore, the

population frame is 22,355 active customers who have been using E banking. In determining the representative sample size for the study, the researcher was used sampling formulas as follow. The formula, which is used in the study, is the one proposed by Krejcie and Morgan (1970:610) for determining needed sample size in research when the population is known.

The formula is stated as:

Formula: n=N/1+NE2

Where: n = is sample size, N = is the total number of the population, E= is the margin of error term. Applying 5 %(0.05) error margin.

Accordingly, the sample size for the study is 393 respondents drawn proportionally from those five branches of south Addis Ababa district 70 respondents in each five branch.

3.4. Sources of Data

Data collection plays a very crucial role in the statistical analysis. In research, there are different methods used to gather information, all of which fall into two categories, i.e. primary and secondary data (Douglas, 2015). In this study both primary and secondary source of data were used. Primary data were collected through distributing standardize questionnaire to the respective participants who are customers of commercial bank of Ethiopia they have using e banking. Primary data are originated by a researcher for the specific purpose of addressing the problem at hand .For secondary data annual reports were used to select branch to distribute questioner this data served as reference and guide the focus of clarify research questions.

3.5. Method of Data Collection Tools

According to Creswell, (2003), there are many methods of data collection. The choice of a tool and instrument depends mainly on the attributes of the subjects, research topic, problem question, objectives, design, expected data and results. This is because each tool and instrument collects specific data. To this end, the study was used questionnaire, interview, and document analysis techniques to collect both primary and secondary data. Primary data was collect from the respondents based on a structurally designed questionnaire, interview question. Secondary data are secured through the review of research works and annual report.

3.6 Methods of Data Analysis

Data analysis is examining what has been collected in a research and making reference (Yogesh, 2006). The data so analyzed seeks to fulfill research objectives and provide the quantitative and qualitative analysis of the study administered using descriptive statistics. Descriptive statistics involve the transformation of raw data into a form that would provide information to describe a set of factors in a situation. This is accomplished through ordering and manipulating the raw data collected answers to research questions (Geottrey, 2005).

The non-sequential collection and analyses of both primary and secondary qualitative and quantitative data is carried out with a view to enable substantiation of either qualitative by quantitative data or the vice versa. With this regards, both qualitative and quantitative analyses was employed using statistical methods and SPSS. With this regards, the study was employed descriptive analysis to make analysis and interpretation of the quantitative data. The descriptive analysis uses mean, mode, standard deviation, percentage, and simple statistical measure like frequency distribution. Tables are also be used to present the study findings. Besides, the qualitative analysis and interpretation involves cautious undertaking of logical analysis of interview and content analyses of documents.

CHAPTER FOUR

DATA PRESENTATION ANALYSIS AND INTERPRETATION

INTRODUCTION

The research has a primary aim of studying the prospects and challenges of E-banking services from customer perspective in Commercial Bank of Ethiopia taking five branches of South Addis Ababa District on base of continues five years annual performance . In line with this, the chapter presents the analysis and interpretation of the data gathered from various sources. The analysis and interpretation of data was conducted in order to gain a better understanding of prospect and challenges of E-Banking service from customers' perspective. Data was collected through questionnaires, and key informant interviews in selected branches customer who are using Electronic payment. With this regards, semi-structured questionnaire was distributed to three-hundred ninety three (393) sampled customers of CBE 70 respondent in each five selected branch. However, the researcher has received 350 properly filled questionnaires. Accordingly, out of the total number of sampled respondents 350 complete questionnaires were received, translating into nearly 89% response rate. The response rate is considered appropriate since Nulty, (2008) argues that any response rate above 75% is classified as appropriate. The rate of return of questionnaire was computed as follows:-

Rate of return = (R / (S-ND)) X 100

Where;

R = number of questionnaires that were
returned S = total number of questionnaires
sent out, and
ND = number of questionnaires unable to be delivered ("returned to sender")

Rate of return= 350/ (393-0) X100

Rate of return = 89%

The raw data gathered through questionnaire was analyzed based on descriptive analysis and conducted through SPSS software. The results, thus presented descriptively. Besides, the

researcher has conducted key informant interviews with purposively selected key informants customer service manager sales and customer service manager service of five selected branches including Kirkos kebele branch customer service manager (respondent 1), Finfine branch (respondent 2), Sengatera (respondent 3), Mexico (respondent) 4 and Lideta (respondent 5). The key informants were selected as it was considered in the study that they had detail knowledge, and experience of E-Banking practices, challenges and its prospects. This has also given the study a better insight about the issue under consideration.

The analysis of the key an informant interview was conducted using content analysis of ideas and used to substantiate the findings of the quantitative aspect of the study. Before the actual data analysis was made, the study has checked the reliability of the data collection instrument. The reliability among the multiple variables that comprise this study was measured using Cronbach Alpha coefficient generated by statistical SPSS. Cranach's Alpha is a measure of internal consistency of questions within the questionnaire and checks if the questions of the questionnaire were understood and if the data were reliable for analysis (Travakol & Dennick, 2011).

Accordingly, Cronbach Alpha test was conducted to check the consistency of the questions and the reliability statistics was 82.8. This implies that there was a fairly a higher level of consistency in the questionnaire in measuring all the variables of the study.

Reliability Statistics

Table 4.1 Cronbach Alpha test

Cronbach's Alpha	Number of Items
.828	48

Source SPSS Result DEC 2019

4.1 Demographic Characteristics of the Respondent

Table 4.2 Demographic Characteristics of the Respondent

S.No	Item	Category	Freq	Percent
1	Sex	Male	208	59.4%
		Female	142	40.6%
		Total	350	100%
2	Age(years)	Less than 20	20	8.2%
		20-30	135	38.9%
		31-40	125	30.4%
		41-50	60	14.3%
		51-60	10	7.9%
		total	350	99.7%
3	Educational Qualification	Elementary and Junior	12	4.3%
		12 Complete	37	13.2%
		Diploma	39	13.9%
		Under Graduate	69	24.6%
		Post Graduate	164	33.6%
		PHD	29	10.4%%
		Total	350	100%
4	Employment Status	Government employee	72	20.57%
		Privet employee	148	42.3%
		Self employee	75	21.42%
		Student	37	10.57%
		Not employee	18	5.14%

		Total	350	
5	Length of Time that the respondent as CBE Customer	Less than one year	115	32.86%
		Between 1 - 3 years	86	24.571%
		Between 4 - 6 years	89	25.42%
		Above 6 years	60	17.14%
		Total	350	99.99%

Source SPSS Result DEC 2019

As indicated the above Table 4.2 present the frequency of the gender profile of the respondents. The table shows that 142 (40.6%) respondents were female and 208 (59.4%) respondents were male. This indicated that from the total participants, the number of male was greater than the number of female. The age of the respondents in which, 20 (8.2%) respondents were less than 20 years, while 135 (38.9 %) respondents were between the ages of 20 to 30 years. On the other hand 125 (30.4 %) respondents were between the ages of 31 to 40 years and 60 (14.3% respondents) were between the ages of 41 to 50 years.

Finally, 10 (7.9%) respondents were between ages 51 to 60. Therefore, as it is indicated in the above table, the data age proportions of the respondents show that most of the E-banking customers during the study time were young people they can use the service. The educational level of respondent majority of the respondent educational level was first-degree, which constituted 164 (33.6%). On the other hand, respondents with high school graduation constituted 37 (13.2%) and those with diploma were indicated to cover 69 (24.6%). Respondents with no formal education were indicated 12 (4.3%) while the ones with masters and above degree were indicated to constitute 29 (10.4%). Finally, those who have certificate are nine (13.9 %). The data shows that, the largest parts of the respondents are first-degree holders. Finally most of the respondents are educated and they can use E banking service. The employment status of the respondents in which, 72 (20.57%) of respondents were found to be government employees, while 148 (42.3%) respondents were found to be employees

of the private sector. On the other hand, customers who have personal business constituted 75(21.42%) and 37 (10.57%) of respondents were students. A small minority of 18(5.14%) of respondents were not employed. Finally the above data showed that majority of the respondent are having income source and they can use the E-banking service to mange there income efficiently and effectively. The duration of use of E-banking services by the respondents is shown in the above table, According to the result, it is found that (115) of the respondents, representing (32.86%) have been using E-banking for less than one year. On the other hand, 83(23.71%) of the respondents that stated that they have been using E-banking from 1 to 3 years. In addition, the respondents states that 89 (25.42%) of the respondents have agreed that they have been using E-banking services from 4 to 6 years duration. Finally, a majority of the respondents, which constitute 60 (21.4%), have agreed that they have been using E-banking services for more than 6 years. This is an indication that majorities of the customers that have been E-banking.

4.2 How customer start E banking and type of E Banking used

Table 4.3 how customer start E banking and type of E Banking used

S.No	Item	Category	Freq	Percent
1	How customer start using e banking	Through advertisement	42	12%
		Bank employee	182	52%
		Social media	56	16%
		Colleague/friends	67	19.4%
		Other means	3	0.85%
2	Type of E-banking services used by customers	Automatic Teller machine(ATM)	10	2.8%
		ATM and Mobile Banking	5	1.42%
		ATM, Mobile banking and (POS)	15	4.28%
		ATM, Mobile banking Point of sales(POS) ,Internet banking and CBE birr	320	91.42%

Source SPSS Result DEC 2019

As indicated in the above Table 4.3 implies that majority of 182 respondents (52%) have started using E-banking by hearing about it from a bank employees. On the other hand, a minority of 42 respondents that represented (12.0%) heard about service from advertisements. In addition, 67 respondents that contributed (19.14%) heard about E-banking services from colleague/friends while 56 respondents (16.0%) learned about E-banking from social Medias. This indicates that most of the customers have started using E-banking services from hearing about it from a bank employee or colleague/friends. And also the above table showed, that 320(91.42%) of the respondent having accessed of all type of E- banking. But also majority of customers are not using that service actively because of different reason. In this case the respondent agreed on lack well developed infrastructures like ICT, broken, slow internet connection and administrative and operational problems are the major one.

4.3 Level of Customers' Understanding about E Banking Service at CBE

It is stated in literature that the level of customers' understanding about electronic banking has higher possibility of determining the success of the E-banking service provision. Accordingly, Beza (2017) stated that stated that higher customers; understanding about E-banking increase customer satisfaction, enhance service to constituents, and improve operational efficiency and profitability of the issuing banks. The following table presents the summary percentage distribution of respondents' opinion.

Table 4.4 Level of Customers' Understanding about E Banking Service

No.	Description		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I can access E- banking in Multiple languages.	Frequency	26	45	148	72	59
		Percent	7.4%	12.85%	42.3%	20.57%	16.85%
2	I understand the E-banking Service very well.	Frequency	46	117	89	79	52
		Percent	13.14%	33.4%	25.42%	22.57%	14.85%
3	The bank provides security For E-banking transaction data and privacy.	Frequency	22	52	164	60	52
		Percent	6.3%	14.85%	46.9%	17.1%	14.9%
4	I can able to see past transactions through E- banking	Frequency	16	38	62	111	123
		Percent	4.57%	10.9%	17.7%	31.7%	35.2%
5	The bank provides Knowledgeable staff to solve problem of E-banking.	Frequency	26	58	90	66	110
		Percent	7.4%	16.6%	25.7	18.9%	31.4%
6	If I face a problem, I can ask immediate help from the bank at any time	Frequency	39	147	68	57	39
		Percent	11.1%	42%	19.4%	16.3%	11.1%
7	Information and texts sent through electronic media are clear and easy to	Frequency	29	48	164	60	49
		Percent	8.2%	13.7	46.9%	17.1%	14%
8	I understand the description given by bank staff on the steps of using E-banking service	Frequency	17	49	166	80	38
		Percent	4.9%	14%	47.4%	22.9%	10.9%

Source SPSS Result DEC 2019

It is indicated in the above table 4.4, nearly half of the respondents (37.42) % stated that they could access E- banking services in multiple languages while minor number of them (20.25%) indicated that they did not access E-banking services in multiple languages. The remaining (42.3%) respondents were undecided about the issue. this peaper concerning the level of understanding about E-banking services, almost 37.42% of the respondents agreed and strongly agreed that they have good understanding about E-banking while 62.58% of the participants declared that they did not have a very well understanding so recommended to give awareness for those types of customer to understand the service.

In the mean time, the interview result conducted with the first key informant indicates that customers understand the E-banking services provided by the bank. That, there were professional staffs responsible to handle the services provision and provided technical as well as professional helps to customers when problem occurs. The services provided through E-banking services. Similarly, the second key informant confirmed that majority of the customers understand the services provided through E- banking. The customers not clear with the ideals of the services and he further stated that all customer of the bank should understand the services that are provided by the bank and the bank needs to work more in improving the understanding of the customers on the services provided through E-banking.

On the contrary to the above two key informants, the third, fourth and the fifth key informant revealed that E-banking customers had low understanding about E-banking services and even they did not provide the technical assistance even if the it announced that gives complete E-banking service. In addition, he stated that customers had few means to learn how to use E-banking and troubleshooting when they face problems. This causes the customers to feel that they were not getting proper E-banking service assistance.

Besides, 17.1% and 14.9% of the respondents agreed and strongly agreed that the bank provides security for E-banking transaction data and privacy they concluded while 14.85% and 6.3 disagree and strongly disagree with the idea. The remaining significant numbers of respondents (46.9%) were undecided on the concern. In addition, majority of the respondents (66.9%) affirmed that they could see their past transactions through E-banking. Regarding the availability of professional and skilled staff who could solve E-banking problems that

encounter customers, significant number of respondents (50.3%) confirmed that there were professional staff to solve problem of E-banking services while 49.7% of them argued on the opposite and stated that the bank weakly staffed. Moreover, respondents were asked to rate whether they could ask immediate help from the bank at any time if they face a problem and 27.4% of them declared that they asked for an immediate help while more than 53.1% said that they did not ask for an immediate help if problems occur while using E-banking services. Bank had professionals who supported customers in case customers faced problems in using E-banking services. However, all the key informants declared that there were limitations in responding to all requests of customers made regarding E- banking services and problems as the banks faced shortage of skilled work forces and inadequate training programs provided to the staff.

Besides, significant numbers of respondents 31.4 agreed and strongly agree that the information and texts sent through electronic media were clear and easy to understand. The remaining considerable numbers of respondents (46.9%) were not having ideas of the concern of the study. Finally, respondents were asked to rate whether they could understand the description given by bank staff on the steps of using E-banking service and 33.8% of the respondents agrees and strongly agree that they could understand however on the contrary while 47.4% of them were undecided.

In summary, the above analysis demonstrates that significant number of respondents stated that they could access E- banking in multiple languages; understand the E-banking service very well and could retrieve past transactions through E-banking services. However, according to the respondents there were observed gaps concerning the provision of security for E-banking transaction data and privacy, professionalism staff to solve problem of E-banking, customers' immediate request for help from the bank at any time, and the clarity and easiness of information and texts sent through electronic media. There were observed gaps . This is also attested by the interview results conducted with customer service managers of five braches considered in the study.

These findings of the study are also seen in the studies conducted by Beza (2017) and Islam (2007). They revealed that customers had a better understanding of the services of E-banking. However, they confirmed that customers were insecure when using E- banking services and the bank had staff to solve when problems exist although there were inadequate staffs, and technical and professional gaps observed to solve technical problems easily. In addition, they stressed that customers got an immediate help from the banks' staff only at working hours. In general, it is learnt from the study that majority of the customers had the understanding of using E-banking services clearly. However, when using the E-banking services, and also the bank provide staff to solve problems when they exist, getting immediate help from the staff at any time when face a problem is not viable but at working hours the staff shows willingness to cooperate and to tell about the service to customers.

4 .4 Challenges of E-banking

4.4. 1 Infrastructural Challenges

Many of the factors affecting the successful expansion of new technologies such as E-commerce and E-banking are generic in nature and that the successful adoption of internet technologies in part depends on how these are used in conjunction with the other technologies and management practices that form a technology cluster. However, the most critical challenges can be ascribed to the very limited information and communication infrastructure available in most developing countries. This infrastructural challenge makes the bank not to provide E-banking service and also makes the customers not to use E-banking services properly. Also the summary of percentage distribution of respondents' opinion One of the objectives of this research project is to identify the major challenge of e banking in commercial bank of Ethiopia specifically in south Addis Ababa district. As a five point likert scale is used to measure respondents' response concerning the major challenge of e banking. Where: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Table 4.5: Infrastructural Challenges of E-Banking Services

Description	Measure	1	2	3	4	5	Mean	Mode	Std.devati
Electric power interruptions cause problems to E-	Frequency	0	0	0	100	250	4.23	4.00	0. 82
	Percent	0%	0%	0%	28.57%	71.43%			
Lack of reliable power supply.	Frequency	0	0	0	100	250			
	Percent	0%	0%	0%	28.57%	71.43%			
Network failures are serious	Frequency	0	0	0	80	270			
	Percent	0%	0%	0%	22.86%	77.14%			
Low level of internet penetration	Frequency	0	0	0	100	250			
	Percent	0%	0%	0%	28.57%	71.43%			
Poorly developed	Frequency	0	0	0	100	250			
Telecommunication infrastructure.	Percent	0%	0%	0%	28.57%	71.43%			
Brocken and slow internet connection.	Frequency	0	0	0	80	270			
	Percent	0%	0%	0%	22.86%	77.14%			
Limitation in ICT infrastructure	Frequency	0	0	0	140	210			
	Percent	0%	0%	0%	40%	60%			

Source SPSS Result DEC 2019

The above table 4.5 showed that, the descriptive statistics such as mean(4.23) , mode (4) and standard deviation of (82.1) explained that the respondents agree with the statement that e banking is challenged by infrastructure such as Electric power interruptions, lack of reliable power supply, network faller, low level of internet, poorly develop ICT, broken, slow internet connection and Limitation in ICT infrastructure penetration is a major challenge of regarding E-banking in commercial bank of Ethiopia. Besides, the key informants interview of the management agreed on the same as the respondent answer confirmed that security risk, lack of suitable legal and regulatory framework, and weak integration of financial networks that links

different banks, low level of internet penetration and poorly developed telecommunication infrastructure, high cost of internet and security issues are the major challenges that the bank faces.

In summary, the above analysis indicates that the majority of the respondents were agreed that o f electric power interruption, lack of suitable legal framework for E-banking services, network failures are serious challenges of E -banking services Besides, broken and slow internet connection, poorly developed inadequate skill of the staff of the bank, languages barriers, weak customers awareness, are also the obstacles E-banking in case of CBE. These findings are also similar with the findings of Alhaji (2009). He found out that the critical challenges of E-banking in developing countries are: lack of technological infrastructure, cost of entry higher compared to developed countries, regulatory and legal issues, lack of awareness on the benefits of new technologies, fear of risk among banks, lack of trained personnel in key organizations, and security problem.

4.4.2 Educational challenge

There are some roles of banking sector in E-banking such as, online corporate banking, electronic fund transfer, automated teller machines (ATM), debit card, credit card etc. Bank is the authorized organization which can store and transact money all this do there have been knowledge and skill is an important key. Technological developments in banking sector make trading activities much easier and cheaper for customers this implies that is development of education is important for banking sector. One of the major challenges in Ethiopia is low development of education sectors; this challenge hinders the prospect of E-banking services in the banking industry . As a five point likert scale is used to measure respondents' response concerning the major challenge of e banking. Where: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Table 4.6 Educational Related Challenges of E-banking

No	Description	Measurement	1	2	3	4	5	Mean	Mode	Std divation
1	Lack of educated and efficient staff in E-banking context.	Frequency	100	100	80	50	20	4.12	4.00	.902
		Percent	28.57 %	28.57%	22.85 %	14.28%	5.71%			
2	Lack of customer awareness with E banking product.	Frequency	20	80	10	120	120			
		percent	5.71%	22.85 %	2.85 %	34.28 %	34.28 %			
3	Low level of computer related knowledge	frequency	20	80	10	120	120			
		percent	5.71%	22.85 %	2.85 %	34.28 %	34.28 %			
4	Lack of E banking demand	frequency	5	15	30	200	100			
		percent	1.42%	4.28%	8.57 %	57.14 %	28.57 %			
5	Lack of supply of E banking for all disabled customer	frequency	0	0	0	140	210			
		percent	0%	0%	0%	40 %	60%			

Source SPSS Result DEC 2019

The above table 4.6 showed that, the descriptive statistics such as mean (4.12), mode (4) and standard deviation of (90.25) explained that the respondents agree with the statement that e banking is challenged by education such as lack of educated and efficient staff on e banking , lack of customer awareness regarding E-banking services, low level of computer related knowledge, lack of E- banking demand and consideration of disable people also a major challenge of e banking service related to education. And also the majorities of the respondents dis agree that lack of educated and effect staff regarding E- banking. This is shown the above, 100 (28.57%) of respondents strongly dis agreed, 100 (28.57%), 80 (22.85) neutral and 50(14.28) and 20(5.71) strongly agree and agree respondents. The respondents also agreed with all above listed illiteracy related challenges and they indicate some solutions to reduce illiteracy related challenges such as; enhancing awareness of customers for all societies, making e-banking products user friendly means adoption of technology that make using of the service easy as calling or writing a text in a mobile phone, and addition of other language of using e-banking services.

4.4.3 Regulatory and legal issue related challenges

National, regional or international set of laws, rules, and other regulations are important prerequisites for successful implementation of e-banking services. Some of the main elements include rules on money laundering, supervision of commercial banks and e-money institutions by supervisory authorities, payment system oversight by central banks, consumer and data protection, cooperation and competition issues. Moreover, a legal and regulatory framework that builds trust and confidence supporting technical efforts to meet the same is another important issue that needs to be addressed. Electronic payments are not currently covered in Ethiopian legal system. Lack of such legal framework may thus hinder the introduction of cost effective modern electronic payment instrument such as ATMs, credit and debit cards, mobile/telephone/internet banking and agent banking. As a five point likert scale is used to measure respondents' response concerning the major challenge of e banking. Where: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

Table 4.7 Regulatory and Legal Challenges of E-banking

No	Description	Measurement	**1**	**2**	**3**	**4**	**5**	Mean	Mode	Std diva tion
1	Lack of suitable legal and regulatory framework for E-banking.	frequency	0	0	0	200	150	4.32	4.00	.899
		percent	0%	0%	0%	57.14 %	42.86%			
2	Lack of law mandating the bank to adopt E-banking technology.	frequency	0	0	0	200	150			
		percent	0%	0%	0%	57.14 %	42.86 %			
3	Cross-country legal and regulatory differences.	frequency	0	0	0	100	250			
		percent	0%	0%	0%	28.57 %	71.42 %			
4	Lack of sufficient government support affects customers' willingness.	frequency	0	0	0	50	300			
		percent	0%	0%	0%	14.28 %	85.71 %			
5	Lack of government initiation or lack of government prioritization	frequency	0	0	0	80	270			
		percent	0%	0%	0%	22.85 %	77.14 %			

Source SPSS Result DEC 2019

The above table 4.7 showed that almost all the respondent are agree and strongly are with their mean(4.32) , mode of (4)and standard deviation (89.9) showed that ,there have been a problem of Lack of suitable legal and regulatory framework, Lack of law mandating the bank to adopt E-banking technology, Cross-country legal and regulatory differences, Lack of sufficient government support affects customers' willingness and Lack of government initiation or lack of government prioritization are the major challenge of Regulatory and Legal related challenge face on E-banking service in commercial bank of Ethiopia in south Addis Ababa district .

Similarly, An interview conducted with all of the bank supervision of customer service manager of seals and service of selected branch of commercial bank of Ethiopia also prove that, Ethiopia does not have special rule on the use of E banking system or it is not yet included in the banking regulation. Since there is no legal frame works on the adoption of technological innovation at central bank. So lack of legal frame work for the implementation of E-banking system is one basic barrier for Ethiopian banking industry.

4.4.4 Socio-cultural related challenges of E banking

Even though there are many prospect associated with adoption of new technology for customer as well as for the bank , there are many hindrance socio-cultural factors that affect effective implementation and extending of the technology affected by social and cultural attitudes of the society. As a five point likert scale is used to measure respondents' response concerning the major challenge of e banking. Where: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

Table 4.8 Socio-Cultural Related Challenges of E-banking

No	Description	**Measurement**	**1**	**2**	**3**	**4**	**5**	Mean	Mode	Std divation
1	Low Level of development of society	frequency	0	0	0	80	270	4.14	4	.913
		percent	0%	0%	0%	22.86 %	77.14%			
2	Cultural and historical attitude difference	frequency	0	0	20	130	200			
		percent	0%	0%	5.71%	37.14 %	57.14 %			
3	Difference in efficiency among people	frequency	0	0	10	140	200			
		percent	0%	0%	2.86%	40%	57.14 %			
4	Resistance to change	frequency	0	0	0	150	200			
		percent	0%	0%	0%	42.86 %	57.14 %			
5	Lack of understanding technology	frequency	0	0	0	180	170			
		percent	0%	0%	0%	51.42 %	48.57 %			

Source SPSS Result DEC 2019

The above tables 4.8 showed that, all the respondent of a mean (4.14), mode (4) and standard deviation (91.3) showed that the E banking services are challenged by socio-cultural related problems, such as level of development of society, customers trust in the traditional banking system, Difference in efficiency among people, Lack of understanding technology and resistance to change. The respondents also agreed that the customers have a confidence in the traditional banking system, this confidence results not to use even if, not to think to use new E-banking products. These challenges are created as a result of low level of awareness in the society, low level of literacy rate in Ethiopia create high illiteracy rate of the society and lack of understanding technology . And also they recommend the bank to do more and more on awareness creation to minimize the impact of socio cultural challenges.

The result of this study agree with the findings of Alhaji (2009), and Kumaga (2010), wendwossen and Tsegaye (2005) their findings consider difference in efficiency among peoples of different cultures as challenge facing E-banking services, Low Level of development of society, Cultural and historical attitude difference, Difference in efficiency among people, Resistance to change and Lack of understanding technology are Socio-cultural related challenges of E banking service.

4.4.5 Administrative and operational challenge

Even though there are many benefits associated with adoption of new technology, there are many hindrance administrative and operational factors that affect effective implementation and extending of the technology. Administrative and operational differences among branch are different and also at the center, it leads unbalanced management. As a five point likert scale is used to measure respondents' response concerning the major challenge of e banking. Where: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

Table 4.9 Administrative and operational challenge of E Banking

No	Description	Measurement	1	2	3	4	5	Mean	Mode	Std divation
1	Transaction limit in all e banking service.	frequency	0	0	0	150	200	4.234		.934
		percent	0%	0%	0%	42.86 %	57.14 %			
2	Lack of computation among bank	frequency	0	0	0	100	250			
		percent	0	0	0	28. 5%	71. 43 %			
3	Lack of improvement e banking service.	frequency	0	0	0	100	250			
		percent	0%	0%	0%	28. 57 %	71. 43 %			
4	Limited only in accessing of e banking service in base branch.	frequency	0	0	0	250	100			
		percent	0%	0%	0%	71. 43 %	28. 57 %			
5	Lack of well organized e banking team,	frequency	0	0	0	80	270			
		percent	0%	0%	0%	22. 86 %	77. 14 %			
	Limited availability of e banking center.	frequency	0%	0%	0%	70	280			
		percent	0%	0%	0%	20 %	80 %			

Source SPSS Result DEC 2019

The above table 4.9 showed that the mean (4.23), mode (4) and standard deviation of (93.4) showed that, E-banking services are challenged by administrative and operational related problems. And also the majorities of the respondents agree (42.86%) and strongly agree (57.14%) transaction limit in all e banking service,(28.5%) agree and (71.43%) strongly agree on the statement lack of computation among banks ,(28.57%0 of agree and (71.43%) strongly agree on statement lack of improvement on e banking service,(71.43%) agree and (28.57%) strongly agree on the statement limited accesses of e banking service in base branch ,(22.86%) agree and (77.14%) strongly agree on the statement lack of well organized e banking team and (20 %)agree and(80 %)strongly agree on the statement that, limited availability of e banking center. All the listed problem such as , Transaction limit in all E- banking service, Lack of computation among bank , Lack of improvement on E- banking service, Limited only in accessing of e banking service in base branch, Lack of well organized e banking team, Lack of well developed E- banking team in everywhere and Limited availability of E- banking center.

One of the basic issue related with administrative and operational challenge is, the availability of financial as well skilled human resource to implement the system. In this study the use of E-banking instrument and technical or managerial skills required to implement E-banking system were considered as administrative and operational challenge of e banking in commercial bank of Ethiopia. The respondents of focused group discussion also agreed that the weak administration and operational challenged to E banking service and also they recommend the bank to do more and more on administrative and operation of E banking service.

Similarly, An interview conducted with all of the bank supervision of customer service manager of seals and service of selected branch of commercial bank of Ethiopia also prove that, commercial bank of Ethiopia improve administrative and operational challenges of E banking system contionesly develop the overall system time to time .currently commercial bank develop different digital center to solve administrative and operational and other related challenges.

4.6 Prospect of E banking service

Table 4.10 Prospects of E-Banking Services at CBE

As a five point likert scale is used to measure respondents' response. Where: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

No	Description		1	2	3	4	5
1	E-Banking reduced costs in Accessing and using service.	Frequenc	15	32	82	100	121
		Percent	4.3%	9.1%	23.4%	28.8%	34.6%
2	E-Banking increased comfort And time saving.	Frequenc	90	56	93	79	32
		Percent	25.7%	16%	26.6%	22.6%	9.1%
3	E-Banking ensures quick a n d Continuous access to information about your account.	Frequenc y	18	29	76	84	143
		Percent	5.1%	8.3%	21.7%	24%	40.9%
4	E-Banking makes faster way of Conducting banking transaction.	Frequency	91	51	74	87	47
		Percent	26 %	14.6%	21.1%	24.9%	13.4%
5	E-Banking is convenient in terms of 7 days and 24 hours	Frequency	17	30	72	98	63
		Percent	4.9%	8.6%	20.6%	28%	18%
6	E-banking ensures me better cash management	Frequency	31	59	154	64	42
		Percent	8.9%	18.4%	44%	18.3%	12%

Source SPSS Result DEC 2019

As shown in the above table 4.10, majority of the respondents think that the E-Banking reduced cost in Accessing and using service. This is shown since, 121(34.6%) of respondents strongly agreed and 100 (28.8%) of respondents agreed. This implies that the highest number of the respondent has agree regarding with the accessing of E- banking reduce the. The above table also indicate that the respondents of 32 (9.1%) strongly agree, 79 (22.9%) agree, 93 (26.6%) are neutral, 56 respondents (16%) disagreed and 90 (25.7%) have responded that regarding with the bank provides E-Banking increased comfort and time saving. Thus, lead that the largest percent of the respondents neutral regarding with the bank provides continuous orientation for E-banking customers.

The above table also shows that respondents agreed when they asked if there is an ensures quick and Continuous access to information about your E-banking service users. This inference was reached since 143 respondents (40.9%) strongly agreed while the majority of 84 respondents (24%) agreed with the statement. The outcome of respondents in the table above agreed most of the customers about the faster way of Conducting banking transaction throw E -banking service. This conclusion was reached since 47 respondents (13.4%) strongly agreed while 87 respondents (24.9%) agreed with the statement. Respondents that had a number of 74 and 51 with a percentage of (21.1%) and (14.6%) were neutral and disagreed respectively.91 respondents (26%) strongly disagreed with the statement. This chaw that there have been a problem of continues using of e banking.

The results indicated in the above table also indicate that the respondents definitely think that there convenient in terms of 7 days and 24 hours. This is drawn since 63 (18%) of the respondents strongly agree, 98 (28%) agree and 72 (20.6%) are neutral, while 30(8.6%) of the respondents disagreed , This leads that the respondents have reflected that there is a problem of accessing 7 day 24 hour e-banking services. The outcome of respondents in the table above had different views regarding with the bank provides incentives to E-banking users. This conclusion was reached since 42 respondents (12%) strongly agreed while another 64 respondents (18.3%) agreed with the statement. Respondents that had a number of 154 and 59 with a percentage of (44%) and (18.4%) were neutral and disagreed respectively. Another 31 respondents (8.9%) strongly disagreed with the statement. This indicates that the largest percent of the respondents were neutral regarding with E- banking ensures better cash management.

This result showed that there have been awareness gap so the bank and other concerned body give attention to awareness.

Besides, the key informant interview results show that there is good prospect regarding to electronic banking services such as level agreement of sign service with network service provider. Introducing various additional channels in order to make customers easily accesses the products and aware those about the benefits of electronic payment and its benefits in making their life easy. Besides, the key informants stated that the improvement in solving the problem through the commitment of the government to facilitate the expansion of ICT infrastructure, improvement in the banking habit of the society, sustainable economic growth in the country, the increment of tourist inflow to Ethiopia and willingness among banks to cooperate in building infrastructure are having the bright prospects of E-banking. The informants further stated that currently commercial bank of Ethiopia is working with Ethiopian Tele communication that is why the service electronic banking service dissatisfied customers. Therefore, commercial bank of Ethiopia should build its own network system.

In addition, the commitment of the government to strengthen the banking industry is a good prospect of E-banking service in the country because currently the national bank of the country is developing a project in cooperation with the World Bank in order to modernize the payment system of the country (Abiy, 2008). In summary, the above analysis indicates that the majority of the respondents were agreed and that E-banking at CBE has a good prospect but still now the customers are challenged to use the service because of the weak implementation digital technology. They stated that E-banking is at its infant ages in the country however, if government as well as CBE exerted efforts to solve existing problems, the future prospect of the service is higher. Finally, it is possible to conclude that the bank is conducting some improvement to solve problems that are related to electronic banking services and there are good prospects for E-banking service in Ethiopi.but currently commercial bank of Ethiopia implemented to digitalize technology to solve the challenge of E- banking like by introducing cash accepting ATM machine and all other E-banking are under improvement to transfer well modernized E- banking technology on process.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5. 1 Summary and Conclusion

The commercial bank of Ethiopia offers different type of E-banking services to their customers to get different purpose. For instance inquires balance, withdrawal cash, purchase goods and services and makes utility payments than other E- banking services but due to various reasons customers use limited E-banking services are the major challenge of E-banking service. Customers acknowledged the benefits of E-banking in terms of reduced cost of transaction, promote comfort, and save customers' time and ensuring quick and continuous access to information. Besides, they confirmed that E-banking ensured better cash management, convenient in terms of 7 days and 24 hours and makes faster way of conducting banking transaction. They have however, declared that there is a gap in providing the services at 7 days and 24 hours. Customers were also dissatisfied with the quality of services. Besides, there are low service qualities in withdrawing cash Limit in time of need. Regarding the presence of errors during service provision there were errors in E-banking service. Moreover, E-banking services did not provide them adequate banking service. Finally, customers had trust on the E-banking service and have stressed that they did not have trust on E-banking services when there have been failure of internet and power interruption.

Regarding with challenges of E-banking services this are the major ones : insecurity of E-banking technology, lack of suitable legal framework for E-banking services, electric power interruptions, network failures , languages barriers, Lack of educated and efficient staff, Lack of customer awareness, Low level of computer related knowledge, Lack of E banking demand and Lack of supply of E banking for all disabled customer , low Level of development of society, Cultural and historical attitude difference, Difference in efficiency among people, Resistance to change and Lack of understanding technology, Transaction limits, Lack of computation, Lack of improvement, Limited only in accessing of the service in base branch only , Lack of well organized E - banking team, Lack well developed e banking team in everywhere and Limited availability of E- banking center are also the challenge of E-banking .The bank is conducting

some improvement to solve problems that are related to electronic banking services and there are good prospects for E-banking service in Ethiopia.

The banking industry in Ethiopian is underdeveloped and therefore there is an immediate need to a capacity building arrangements and modernize the banking system by Employing the state of the art technology being used anywhere in the world. The banks operating in Ethiopia should recognize the need for introducing electronic banking system to satisfy their customers and meet the requirements of rapidly expanding domestic and International trades, and increasing international banking services.

The finding of the study reveals, the E-banking tools and similar E-banking services provide a lot of prospect mainly for the bank such as; attracting of customers by giving effective and Time saving services, building good image of the bank, load reduction or reduction of working burden of the employee, improve organizational performance through cost reduction and it also increases the revenue of the bank by making different activity using this system. This implies that the bank expand E-banking services in order to be advantageous from the above variety of benefits as a result of expansion of E-banking services in addition to the bank, the customers also benefited from the service in different ways such as saving of time, getting 24-hour access, convenience and ease of use by using the service tools of the system. This implies that the customers are starting using of E-banking products in order to be beneficiary on the E-banking service benefits.

According to the findings of the study, CBE branches observed in the study offers Automated Teller Machine (ATM), Mobile Banking (MB), Point of Sales (POS) terminals, and Internet banking (IB), and CBE Birr or Agent banking . With regard to service options available to the customer, respondents stated that once they have began to use E-banking services, they easily access services of balance inquiry, cash withdrawal, utility payment, purchase of goods and service recently also using deposit on ATM. Besides, as the result shows, most customers moderately understand the service of electronic banking provided by CBE branches under the study. Majority of the customers agreed that the bank provides security for E-banking transaction data and privacy of its customers. Besides, it is affirmed in the study that CBE has staff with the required professional competency and skills in solving the problem of

E-banking services, which customers usually encounter in the service provision of the bank. Besides, majority of the respondents declared that the information and texts sent through electronic media to customers regarding E-banking services are clear and easy to understand.

E banking have a multiple purpose for individuals, organization and corporation to transact and mange there business efficiently and effectively at every time in everywhere. Regarding the benefits which customers secure from E-banking services, reduced costs of transaction, increased comfort and time saving, better cash management, faster way of conducting banking transactions are the major. In the study, it is indicted that although there are benefits, which customers gain in using E-banking services, there are times the service becomes unavailable due to network problems, power disruptions, staff shortages and other technical problems reasons. Majority of the respondents confirmed that they are dissatisfied due to the interruption of services provided by the bank. Moreover, the study revealed that lack of suitable legal and regulatory framework, low level of internet penetration and poorly developed telecommunication infrastructure, high cost of internet, security concerns, and service languages are among the major challenges of E-banking service provided by the study branches but the problems are throw out the country.

The finding of this study shows that, the infrastructural, legal and regulatory, illiteracy and Socio-cultural related challenges of E-banking hinders the adoption of E-banking system in Commercial bank of Ethiopia in case of south Addis Ababa district. This major challenge includes; Low level of internet penetration and poorly developed telecommunication infrastructure, lack of suitable legal and regulatory framework for E- banking and E-payment, Lack of sufficient government support, high rates of illiteracy, Lack of educated and efficient staff in E-banking context, Lack of customer awareness with E-banking product, Customer low levels of computer literacy, absence of financial networks that links different banks, and lack of reliable power supply, low level of development of society limitation of transaction , and resistance to change are the major challenges of E banking infrastructural challenge.

5.2 Recommendation

Based on the findings of the study, the following recommendations are forwarded in order to promote and develop different E-banking service and develop the prospect and challenge of E banking alternative mechanism in commercial bank of Ethiopia in general and in selected branches of south Addis Ababa district particularly. The followings are recommended to strengthen the E-banking system in commercial bank of Ethiopia in south Addis Ababa district and the overall E- banking systems in commercial bank of Ethiopia.

- With regard to available E-banking service options to the customers, the bank should improve all e banking services in order to attract more customers. Service qualities in money transfer, setting up new accounts, balance inquiry, conducting payments, withdrawal of money, requesting account balances and other routine services should be improved.
- The bank should promote public relation work in order to raise public awareness on the use of E-banking service. Increasing the awareness on the advantages of E-banking services among customers is vital to improve the recognition and acceptance of the technology. Therefore, it will create better understanding of electronic banking service for the customers by using different media.
- While creating awareness is important, it is not enough on its own. Besides the obvious ease of use, customers need to have incentives to take the additional step of actually using the technology. Examples of incentives that have been used in other countries include gift baskets, cash, or coupons in cooperation with other service providers such as restaurants, entertainment venues, etc. Ultimately, the goal is to create and improves awareness; it is also to provide customers with additional incentives to try the technology currently this method used on selected product and service.
- The lack of legal and regulatory framework for E-banking services has discouraged banks from introducing these innovative payment instruments or where they have introduced, has put them at legal risk. Electronic payments are not recognized in Ethiopia legal system. Thus, government should issue laws that govern electronic payment.

- This helps financial service providers introduce innovative products currently in use around the world which are cost effective, efficient and safe. The bank should improve internet penetration and telecommunication infrastructure, reduce cost of internet and strongly develop security concerns.
- To increase the knowledge and skills of employees in E-banking service, the bank should give continuous trainings to all employees who have direct relation with the customers and create some kind of benefit for the employees to use all E -banking packages because when they practice it, they will have good understanding and develop their skills. Therefore, the bank should continue on improvement to solve problems that are related to electronic banking service. Finally, the bank should work more on prospects of E-banking service in Ethiopia.
- The most of huge infrastructures are covered by government like telecom service ,electric power ,information communication technology etc so ,the government should support the electronic banking sector by investing a comprehensive regulatory and legal framework for E-commerce and E-payment, by providing incentives for financial institutions to invest rigorously on ICT and use of e commerce. Besides, the bank should attract the community to use the technology by diverse incentive campaigns. Therefore, Ethiopian government should establish a clear set of legal frame work on the use of technology in banking industry, support banking industry by investing on ICT infrastructure and banks needs to be focused on technological innovation competition rather than traditional bases of retail bank competition.

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Appendixes

St. Mary's University

School of Graduate Studies

Questionnaire to be filled by CBE customer

Research Topic: The Challenges and prospect of E banking from customer perspective in commercial bank of Ethiopia in south Addis Ababa district.

Dear Sir/Madam:

The major objective/purpose of this study is to collect data about the Challenges and prospect of E banking from customer perspective in commercial bank of Ethiopia in south Addis Ababa district. I would like to assure you that the information you provide will be used only for the purpose of achieving academic award. Your involvement is regarded as a great input to the quality of the research results. Hence, I believe that you will enlarge your assistance by participating in the study. Your honest and thoughtful response is valuable.

Thank you for your participation.

At the end, you are kindly requested:

A) Not to write your name for reasons of confidentiality.

B) To put the mark tick (√) against your response in the box provided.

Thank You in Advance!

Annex I

I: Demographic profile of respondents

Please indicate the following by ticking (√) on the spaces in front of the response

1. Gender

Male ☐ female ☐

2. Age

☐ ☐

18-25 26-37

38-49 ☐ Above 50 ☐

3. Education Level

Below first degree ☐ First degree ☐

Masters ☐ PhD and above ☐

4. Source of income

Government employee ☐ student ☐

Privet employee ☐

Self employee ☐ not employee ☐

II. Questions Related to those Banks Providing E-Banking Services

1. Years of Experience when you start E banking service ----------

2. How to start E Banking?

Through advertisement ☐ Social media ☐

Bank employee ☐ other means ☐

Colleague/friends ☐

3. Do you think that the bank and customer is sufficiently adopted the system?

A. Yes ☐ B. No ☐

If no, list the problem ----------

4. What are the main challenges of E –banking ----------?

Others_____

5. What measures you are taking to minimize this challenge ----------

6. What should be expected from the bank to provide efficient e-banking service to solve challenge?

Please tick (√) your response on the table

Level of Customers Understanding about E-Banking service

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	Awareness related					
1	I can access E- banking in Multiple languages.					
2	I understand the E-banking Service very well.					
3	I can able to see past transactions through E-banking					
4	If I face a problem, I can ask immediate help from the bank at any time					
5	I understand the description given by bank staff on the steps of using E-banking service					
	Prospect of E-Banking					
1	E-Banking reduced costs in Accessing and using service.					
2	E-Banking increased comfort And time saving.					

3	E-Banking ensures quick and Continuous access to information about your account.					
4	E-Banking makes faster way of Conducting banking transaction.					
5	E-Banking is convenient in terms of 7 days and 24 hours					
6	E-banking ensures me better cash management					
Challenges of E-banking						
Infrastructural challenges						
1	Electric power interruptions cause problems to E-banking concern					
2	lack of reliable power supply					
3	Network failures are serious Problem to use E-Banking services.					
4	Low level of internet penetration					
5	Poorly developed telecommunication infrastructure.					
6	Brocken and slow internet connection.					
7	Limitation in ICT infrastructure					

Educational challenge						
8	Lack of educated and efficient staff in E-banking context.					
9	Lack of customer awareness with E banking product.					
10	Low level of computer related knowledge					
11	Lack of E banking demand					
12	Lack of supply of E banking for all disabled customer					
Legal and regulatory challenge						
13	Lack of suitable legal and regulatory framework for E-banking.					
14	Lack of law mandating the bank to adopt E-banking technology.					
15	Cross-country legal and regulatory differences.					
16	Lack of sufficient government support affects customers' willingness.					
17	Lack of government initiation or lack of government prioritization.					
Socio cultural related challenge						

18	Level of development of society					
19	Cultural and historical attitude difference					
20	Difference in efficiency among people					
21	Resistance to change					
22	Lack of understanding technology					
Administrative operational challenge						
23	Transaction limit in all e banking service					
24	Lack of computation					
25	Lack of improvement e banking service					
26	Limited only in accessing of e banking service in base branch					
27	Lack of well organized e banking team					
28	Lack well developed e banking team in every where					
29	Limited availability of e banking center					

Annex II

General Unstructured Interview Schedule

1. What the commercial Bank of Ethiopia is doing regarding of e

   Banking service?

2. What is the responsibility of the commercial Bank of Ethiopia regarding the

   Expansion of E-banking service?

3. What the National Bank expects from commercial bank of Ethiopia regarding of E banking service?

4What benefited the bank can maximize by offering E-banking service

5. How do you evaluate the legal ground towards E- banking service?

6. Do you believe E-banking is safer than paper based banking?

7. What is the prospect of E-banking service in the banking industry and the overall system?

8 What are the challenges of E-banking service from customer perspective?

9. What are the prospects of E-banking service in the Country?

10 What are the driving forces towards the use of E-banking service?

11. Does your bank provide E-banking training to employees and customer by different mechanism?

12. Does your bank provide to awareness about E-banking and its prospect to your customer?

13 What are the possible prospects of E banking in commercial bank of Ethiopia?

14. Do you think there are enough infrastructures to offer E banking service in Ethiopia?

15. Any suggestions regarding the prospect and challenge of E-banking service in the banking industry?