ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

CHALLENGES AND OPPORTUNITIES OF ELECTRONIC BANKING IN THE CASE OF COMERCIAL BANK OF ETHIOPIA

By
YIDIDYA SHEWAYE
(SGS/0353/2010A)

MAY, 2019
ADDIS ABABA, ETHIOPIA

CHALLENGES AND OPPORTUNITIES OF ELECTRONIC BANKING IN THE CASE OF COMERCIAL BANK OF ETHIOPIA

By
YIDIDYA SHEWAYE
(SGS/0353/2010A)

A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF MARKETING MANAGEMENT

MAY2019
ADDIS ABABA, ETHIOPIA

ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

CHALLENGES AND OPPORTUNITIES OF ELECTRONIC BANKING IN THE CASE OF COMERCIAL BANK OF ETHIOPIA

By
YIDIDYA SHEWAYE

APPROVED BY **BOARD OF EXAMINERS**

_____ _____

Dean, Graduate Studies **Signature & Date**

_____ _____

Advisor **Signature & Date**

_____ _____

External Examiner **Signature & Date**

_____ _____

Internal Examiner **Signature & Date**

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for Degree in any other university and that all sources of materials used for the thesis have been
Duly acknowledged.

Declared by

Name: **Yididya Shewaye**

Signature_____

Date_____

Confirmed by Advisor:

Name: Ass.Professor. **Zemenu Aynadis**

Signature_____

Date_____

Contents

ACKNOWLEDGEMENTS

I am most grateful to the Almighty God for His infinite mercy and love that guided me throughout the duration of the program. And I would like to thank his mother Saint Mary. She pray, bless, protect and intercede for us.

I am deeply grateful to my advisor Ass.Professor Zemenu Aynadis for his precious and constructive comments and suggestions during the course of this study. In addition to his contribution to this Thesis and I also like to thank his thoughtful contributions to my stock of knowledge.

I am extremely indebted to my family specially My Father Shewaye Abebaw, My Mother Nardos Amare and My Aunt Haimanot Amare for their support and encouragement throughout my life I am also grateful to my friends for their moral support since the beginning of my education.

Last but not least, I would like to express my deep gratitude to staff and customers of Commercial Bank of Ethiopia Bank for their willingness to their cooperation in filling the Questionnaire.

ACRONYMS

ATM - Automated Teller Machines

CBE - Commercial Bank of Ethiopia

E-Banking – Electro banking

E-Channels – Electronic channels

EFT - Electronic Fund Transfer

FTOC= Fund transfer outgoing customer transfer

FTCH= Fund transfer outgoing customer transfer by check

IT – Information Technology

ICT - Information Communication Technology

NBE = National Bank Of Ethiopia

POS - Point of Sale

PC – Personal computer

SMS - Short Message Service

SPSS-Statistical package for social science

List of Tables

ABSTRACT

This study is conducted with the purpose of examining the challenges and opportunities of electronic banking in the case of commercial bank of Ethiopia. The general objective of the study was to determine the challenge and opportunities of E--banking in the case of commercial bank of Ethiopia. The study was conducted based on data collected from customers of commercial bank of Ethiopia through questionnaires. Population of the study consists 4 district branches of commercial bank of Ethiopia. Convenience sampling method was employed to draw the sample from the population. The result of the study indicated that the major challenges of electronic banking in commercial bank of Ethiopia are network problem, internet infrastructure, cost of internet, security risk, lack of trust, lack of educated and efficient staff. The study also identified opportunities of electronic banking in commercial bank of Ethiopia as Electronic banking is more accessible and faster than other banking method, using electronic banking would enable to complete E-banking activities more quickly and easily, electronic banking is useful for banking needs., There is no time limit to access bank account and information, using electronic banking facility saves their time and money, learning to use electronic banking would be easy, it is easy to use electronic banking to accomplish banking tasks, The services are adapted to disable and elder people who are lacking computer experience, have a high degree of trust on Commercial bank of Ethiopia and are satisfied with security of electronic banking service, trust the use of electronic banking, Using E-banking fits well with the way you like to control and manage banking transactions and using the current banking service now because these are already a part of daily life. The study suggests a series of measures which could be taken by the 4 district branches of commercial bank of Ethiopia and to address various challenges identified in the study. These measures include: implementing powerful security programs, modifying the bank infrastructure and hiring well trained and experienced IT professionals to handle the E-banking business competently with adequate knowledge.

Keywords:*E-banking,ICT,opportunities,challenges,CBE,infrastructure*

CHAPTER ONE

INTRODUCTION

This chapter provides background information about the challenge and opportunities of E- banking in the case of commercial bank of Ethiopia. So this chapter highlights background of the study, statement of the problem, basic research question, objective of the study, significance of the study scope of the study and organization of the paper.

1.1. Background of The study

The usage of e banking by the enterprises came into existence in mid-90's.e banking came into existence in greater numbers because of low operating costs. First it is in the form of ATM's and phone transactions. Recently it transformed to internet a new channel between customers and banks which benefits both. The main aim of e- banking services is to provide the customers a much faster services with low cost. From the last twenty years, banking sector has chosen a new method of banking based on the progress of information technology. In addition to these customers, transaction and communication abilities are fastened based on information technology.(Gardachew, 2010)

The concepts of e-banking become popular when the banking activities and information are merged. When the internet facilities enter into the banking sector, the inter-bank activities are linked through internet, the concept of "Electronic Banking or Net Banking" is also introduced. Electronic banking enables a customer to do banking transactions through the bank's website in the internet. It is more or less like bringing the bank to customer's computer, At the place and time of customer's choice. (Devamohan, 2002). And also E-Banking is the provision of banking service to customers through the internet (Hauns 2013, Ayana, 2014; and Nimako, 2013).

The application of this electronic banking service has become a subject of fundamental importance and concerns to banks and indeed a prerequisite for local and global competitiveness in the banking industry. This in turn motivates banks to spend more on information technology so as to achieve maximum returns and to attract large number of clients (Husni and Noor 2011).

E-banking are closely related systems with huge interactions and their development needs social identity, a reliable legal system, well-built communication network, and strong government support (Zheng, et al., 2009). Since there can be many potential problems related with E-banking system, it is necessary to develop a sound atmosphere for E-banking like strengthen the construction of the network infrastructure, improve risk mitigation mechanisms, develop skill man power, suitable legal and regulatory framework for E-commerce and E-payment that deals with e-commerce including enforceability of the validity of electronic contracts, nurture more practitioners in this area and finally strengthen communications with government for policy support (Zheng,et al., 2009)

The banking industry is experiencing change customer driven and technological advancement. E-Banking is emerged as the most critical form of customer interaction and causing changes financial markets. Banks all over the world are struggling to decrease costs and increase profit margins in order to sustain in this competitive environment. Internet is becoming a critical channel for selling virtually all goods and services [Roche, 2014]. Because of this, internet sector, internet banking becomes and most effective channel for the banks as well as for customers [Roche, 2014].

In Ethiopia e-payment is launched by CBE in 2001, however it is on the growing stage and face different challenges. The coverage and distribution of E-banking is widely floated on the capital and main city, though a wide portion of the population located at urban and rural area, where these services hardly exist. Even though the existence of unfair infrastructure development distribution in the country, yet stretched effort not exerted on already built and have a good infrastructure area. Performed activities for expansion as compared to its implementation or introduction stage is poor and inadequate. On the other hand, the banks are currently engaged in aggressive competition in opening out of new branches, a door to door service. Nonetheless, the growth is not proportional with E-banking expansion and it is not aligned with the use of E-banking. In addition to this the bank has not frequently and exhaustively organized unawareness to the society as it has deemed to do so to enhance the E-banking. (HareguaTadesse, 2017)

Commercial bank of Ethiopia operated with some exceptions providing services to customers by using traditional using traditional system causing dissatisfaction to customers. E- banking literature's states the problems related to E-banking, to mention some, low level of internet penetration, under developed telecommunication infrastructure, luck of legal regulatory framework for e-banking, risks related with security issue, low level of E-banking awareness, etc..

As per Commercial bank of Ethiopiawebsite2019, Commercial bank of Ethiopia is Pioneer to introduce modern banking to the country and CBE is the pioneer in introducing ATM to the country.it was established in 1942 G.C in Ethiopia to provide a full-fledged payment card services as a principal plus member of visa international and master card, the world leader card association. The bank is engaged in both card issuing and transaction acquiring business. Commercial bank of Ethiopia current E-Banking services are ATM, POS, Internet banking, Mobile banking and tele banking that could be used to effect payment at merchant outlets and to withdraw cash from ATM machines installed at different location in the country. .Currently CBE has more than 20 million account holders and the number of Mobile and Internet Banking users also reached more than 1,736,768 as of June 30th 2018. Active ATM card holders reached more than 5.2 million. As of March 31, 2019, 2,524 ATM machine and 9,384 POS machines were available.

Most banks in developed and some in developing parts of the world are now offering E-banking Services with various levels of sophistication and is rapidly expanding in developing countries.(Ackah, 2014). In Ethiopia, however, cash is still the most dominant medium of exchange, and electronic payment systems are at an evolving stage. In the face of rapid expansion of electronic payment systems throughout the developed and the developing world, Ethiopia's financial sector cannot remain an exception in expanding the use of the electronic banking system. Therefore, this study is designed to assess the opportunities and looks at the challenges faced in using E-banking service in commercial bank of Ethiopia.

1.2. Statement of the problem

E-banking has been widely used in developed countries and is rapidly expanding in Developing countries. Nevertheless, in Ethiopia cash is still the most dominant medium of exchange, and electronic payment systems are observed late to move with rapid expansion of electronic payment systems throughout the developed and the developing World, Ethiopia's financial sector remain behind in expanding the use of the technology. With a growing number of import-export businesses, and increased international trades, increase the demand of the customers and international relations, the current banking System is short of providing efficient and dependable services (Gardachew, 2010)Now a day's banks use different schemes so as to satisfy their customer needs. Among these approach using card banking technology has get a wider concern. In this regard CBE being a pioneer in introducing ATM has been working day and night towards reaching a full-fledged Service. With all ATMs installed at convenient places including branches,

hotels, malls and other Public places one can enjoy a 24 hours a day and 7 days a week service including cash withdrawals, Bill payment, fore, fund transfer, mobile top up, balance inquiry and the like.

When compared with the banking industry operated in developed country, without doubt the banking industry in Ethiopia is underdeveloped and therefore, there is an immediate need to embark on capacity building arrangements and modernize the banking system by employing the state of the art of technology being used anywhere in the world. With a growing number of import-export businesses, and increased international trades and international relations, the current Banking system is short of providing efficient and dependable services (Gardachew 2010).

Electro banking service rendering at the CBE has not been free of challenges and hurdles that have had a serious negative impact in the project's success. These challenges have had negative repercussions on the banks performance when it comes to E- banking service rendering. The bank has not fully capitalized upon the opportunities of electronic banking provision. (Dawit Tesfaye 2015)

As Commercial bank of Ethiopia pioneer in introducing e- banking in Ethiopia it has been working and still working on this system and it is possible to transfer money from one bank to another by the system called FTOC (Fund transfer outgoing customer transfer) and FTCH (Fund transfer outgoing customer transfer by check) However, it is weak in that of delivering to the customers the transferred money from the public and the economy there is a strong need for strengthening linkages among banks in order to allow healthy flow of financial resources among financial institutions and optimize the contributions of the entire financial system to the development processes as whole. (Commercial bank of Ethiopia 2018.)

These services are aimed at giving Commercial bank of Ethiopia the strategic advantage it needs to maintain the Leadership gap it holds over the Ethiopian financial market. With over 10 mill account holders the Bank has the biggest market share & aims at future adding to the customer's interest &satisfaction Along with harvesting higher returns by utilizing the electronic banking service provision. So far although the e-banking service provision in CBE launch has showed to promising, plagues of different Kinds& challenges have negatively its diffusion & growth. Those challenges in commercial bank of Ethiopia are possibly related to low level of internet service penetration which is closely related with e-commerce service, lack of infrastructure along with high initial cost both from users side & bank side to obtain the high technology hardware &software needed for the e-banking service use added to of course to the lack of awareness &understanding from customers which

in turn has created a perceived security risk associated with the service usage. Therefore this study will identify the major challenges & opportunity of E-banking in the case of commercial bank of Ethiopia based on the research problem stated above.

1.3. Basic Research Questions

This study primarily focused on answering the following basic research questions in order to address the problem stated:

1. What are the challenges of Electro Banking in Commercial Bank of Ethiopia?
2. What are the opportunities of Electro Banking in Commercial Bank of Ethiopia?
3. What are the driving forces of Electro Banking adoption in Commercial Bank of Ethiopia?
4. What are the customer's perceptions about Electro Banking in Commercial Bank of Ethiopia?

1.4 Objectives Of The Study

1.4.1 .General Objectives of the Study

The Main objective of the research is to determine the challenge and opportunities of E-banking in the case of commercial bank of Ethiopia.

1.4.2. Specific Objectives of the Study

In addition to the above general objectives, the study will have the following specific objectives.

- To investigate the challenges in the implementation electronic banking in commercial bank of Ethiopia.
- To assess the opportunities of e-banking on the operations of commercial bank of Ethiopia.
- To identify the driving forces of electronic banking adoption in the case of commercial bank of Ethiopia
- To analyze the customer's perception about electronic banking in commercial bank of Ethiopia

1.5. Significance of the Study

The finding will offer a framework for commercial bank of Ethiopia for the design of their future instructions and to alter their goals and objectives as in keeping with real opportunities and challenges. Besides it's the output of the study will sort out approaches for enhancing the challenges of E-banking in CBE in pleasant clients. The findings of the study will initiate and can be used as

platform by using any concerned persons in the bank or researchers who may want to perform further and in-depth studies on the provider characteristics of the vicinity or different associated issues inside the bank. Additionally, the study recommends or proposes answer for the known draw back supported the gathered data. And this study also seeks to deal with the lack of studies on challenge and opportunities electro banking in case of commercial bank of Ethiopia. In addition, the study will provide input for the further research on the area, especially with respect to the challenges and opportunities of E-banking services to customers or the general public at large.

1.6. Scope of the study

1.6.1 Geographical scope

The findings of this study would be more fruitful if was performed on a wider scale based on all branches of commercial bank of Ethiopia inside the country. But because of time and monetary constraint it was likely be too tedious and hard to conduct this take a look at on a much broader scale. The scope of the study was confined primarily based on Geographical location which was targeted on 4 districts East, West, South and North districts and among them it focused best on Addis Ababa branches which are found inside the Districts.

1.6.2 Conceptual scope

The conceptual scope of the study because of the above stated elements this take a look at would be obliged to delimit the challenge and opportunities of E-banking in the case of commercial bank of Ethiopia that allows you to seriously inspect the challenge and opportunities of Electro banking in commercial bank of Ethiopia and attain on wonderful result for the said questions about the statements of the problem.

1.6.3 Methodological scope

The questionnaires was distribute to the commercial bank of Ethiopia customers of four selected branches that are observed in A.A. which are currently using the service of E- banking in commercial bank of Ethiopia , that consider selected branches of personnel and clients have on technology.

1.7. Limitation of the Study

While conducting the study, the sample is taken from commercial bank of Ethiopia of selected four branches from the four districts found in Addis Ababa, Ethiopia .and doesn't include the remaining commercial banks that are operating in the country. Hence the generalizations may not be applicable to them. It faced that respondent Does not properly respond to the whole content of the questionnaire due to Misunderstandings, lack of knowledge, or commitment to the subject matter.

However, to Minimize these problems; the researcher used for some of the questionnaire which are distributed to the Bank's customers are selectively distributed for those individuals the researcher believe that they have the potential, ability and capacity to respond the questioner properly.

1.8. Organization of the study

This paper was organized in to five chapters. Chapter one include Background of the study, Statement of the problem, Objective of the study, Significance of the study and scope of the study. Chapter Two include the Related Literature Review. Chapter three Research Design and Methodology, the fourth chapter focused on the analysis, interpretation and presentation of the data. Lastly the Fifth chapter deals with summary, conclusions and recommendations based on the findings

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Theoretical Literature

2.1.1 Definition of Electronic Banking

The definition of electronic banking (E-banking) varies amongst researchers partially as a result of electronic banking refers to many kinds of services through that a bank's customers will request info and perform most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols, 1998; Sathye, 1999).E-banking includes the provision of retail and little worth banking products and services through electronic channels in addition as large vale electronic payments and alternative wholesale banking services delivered electronically" (Basel Committee on Banking Supervision 2001).

E-banking is that the use of electronic ways to deliver traditional banking services like taking deposits, creating loans and clearing payments using any kind E-channels, The result of E-banking is to enhance and facilitate existing bank activities and payment mechanisms, Primarily by creating several transactions cheaper, faster, safer and additional convenient. This definition implies that e-banking has been happening in varied forms for many years, phone banking as an example, that allows account holders to conduct many types of transactions has been used since the arrival of touch-tone dialing and equally the automated teller machines (commonly known as the ATMs or bankomats) are a kind of retail e-banking in use since the mid-1970s and in nearly universal use since late 1980s.(Muvva and Sisay,2011).

Electronic banking is the use of a computer to retrieve and process banking data (statements, transaction details, etc.) and to initiate transactions (payments, transfers, requests for services, etc.) directly with a bank or other financial service provider remotely via a telecommunications network (Malak, 2007).

The word E-banking often refers to online banking/Internet banking which is the use of the internet as a remote delivery channel for banking services (Malak, 2007). With the help of the internet, banking is no longer bound to time or geography. Customers all over the world have relatively easy access to their accounts 24 hours per day, seven days a week. Alternative definition of E-banking is that. ``E-banking is the use of a computer to retrieve and Process banking data (statements, transaction details,

etc.) and to initiate transactions (payments, transfers requests for services, etc.) directly with a bank or with other financial service provider remotely via a telecommunications network'' (Yang 1997, p.2) ‖.

Electronic payment is mostly referred to automated payment or banking channel that allows delivery of banking services in an effective, efficient and convenient way via electronic channels i.e., automated tellers machine (ATM), point-of-sale terminals (POS), mobile phones, internet and personal computers; electronic payment is spreading rapidly as it leads to much lower costs and greater competition in the financial services; the adoption and growth of e-payment facilities is becoming imperative towards creating a cashless society; the most recognized drivers for growth of E-banking include convenience, reliability, wider availability, affordability and usefulness of the services are increasingly sought for ease of livelihood of the populace at large; Electronic payment assists in attracting unbanked individuals into the banking system allowing improvement in personal money management along with enhanced financial empowerment. Electronic payment enables the drawing of cash into bank accounts, which in turn, transformed into lending and investment funds for financial institutions; hence, in consideration of these improved needs and the development and expansion of e-payment products and services (Commercial bank of Ethiopia 2018)

2.1.2 Evolution of E-banking

Electronic banking, or e-banking, is the term that describes all transactions that take place among companies, organizations, and individuals and their banking institutions. First conceptualized in the mid-1970s, some banks offered customers electronic banking in 1985. However, the lack of Internet users, and costs associated with using online banking, stunted growth. The Internet explosion in the Late-1990s made people more comfortable with making transactions over the web. Despite the dot-com crash, e-banking grew alongside the Internet.

While financial institutions took steps to implement e-banking services in the mid-1990s, many consumers were hesitant to conduct monetary transactions over the web. It took widespread adoption of electronic commerce, based on trailblazing companies such as America Online, Amazon.com and eBay, to make the idea of paying for items online widespread (OECD, 2004). However, E-banking is the product of different generations of electronic transactions. The current web-based internet is the latest of several generations of systems: Automated Teller Machine (ATMs), Phone Banking, PC or House Banking. Automated Teller Machines (ATM) were the first well-known machines to provide electronic access to customers where as in phone banking, users call their bank's computer system on their ordinary phone and use the phone keypad to perform banking transactions. PC banking

superseded phone banking and allowed users to interact with their bank by means of a computer with a dial-up modem connection to the phone network. Phone and PC banking entailed maintenance costs associated with keeping up to date with diverse modems and with avoiding prohibitively complex installation procedures.

After those generations Deutsche Bank launched the very first Internet banking project in Latin America in 1996 and Citibank has developed a special "e-toolkit" across all its branches worldwide (UNCTAD, 2002). E-banking uses the web browser for the user interface and the Internet for data transfer and download of software, and so has a potential for reducing maintenance costs. For users, E-banking provides current information, 24x7accesses to banking services. The primary services provided by e-banks are transferring money among one's own accounts, paying bills, and checking account balances. Loans, brokering, share trading, service bundling, and hosts of other financial services are being added to these primary services). E-banking is widely used in, among other places (Dewan & Seidmann, 2001)

2.1.3E-Banking Technologies

E-banking relies heavily on information and communication technology(ICT) to 24hrs availability, Low error rates and quicker delivery of financial services, When considering e-banking, bank websites usually come to mind first but E-banking requires much more than just a good website, It needs back end applications such as account systems, support applications such as customer relationship management(CRM) systems, communication technologies to link E-banking to the payment systems and middleware to integrate all those often different type of systems.

The two major technologies that influences E-banking are Internet and Mobile technology. The Internet is a massive global network of interconnected packet-switched computer networks, The most existing E-banking development are occurring on the portion of the internet known as World Wide Web, the internet eliminates obstacles created by geography, time zones and locations, this really help the financial sector to market their product and offer services globally. Internet is less functional in E-banking without the use of tangible appliances like PCs, ATMs and mobile phones. Some banks are making significant investments in mobile systems to deliver business activities so as to increase efficiency and reduce cost, to improve operational effectiveness and customer services to maintain a competitive hedge.(Salehi and Alipour, 2010).

2.1.4 Enabling Factors for Adoption of E-Banking

Factors that stimulate adoption of e-banking by financial institutions revolve around three major elements "ever-increasing demand of customers, the escalating competitions, and the need to control and reduce the rising cost" (Barra, 1990; cited in Bradley and Stewart, 2003:272). It has been established that banks are motivated to adopt e-banking in search for sustainable competitive advantage and reach their customers through utilization of multi channels of distribution (Clemes et.al, 2006). E-banking is spreading quickly in recent years as it leads to much lower costs and greater competition in the financial services. The effect of e-banking is not only observed in developed countries and emerging economies, but for Africa that has a relatively underdeveloped financial sector, it offers many opportunities including saving and payment services to low income customers in remote areas who do not have a normal bank accounts (Claessens et.al, 2002).

As e-banking relies on technological interaction (self service) with minimal human encounters, it allows banks to significantly reduce their transaction costs with the impact on maximizing their profitability. Stewart and Bradley (2003) reported that e-banking costs a fraction of those conducted by branch. In fact they substantiated their report by citing the data of Yakhelfe (2001) that puts the cost of traditional payments at $ 1.08 in contrast to $ 13 cents over the internet (Stewart and Bradley, 2003:272). The cost of e-banking is said to be one-tenth to that of the conventional banking cost (Salehi and Alipour, 2010).

From customer perspective the most recognized drivers for adoption of e-banking includes the convenience, the reliability, the widely availability, affordability and usefulness of the services (Mas, 2008). Therefore, consumers need to perceive the value offered by e-banking in order to adopt it as a means to payments or banking.

The conceptual framework of the studies major drivers for the adoption of e-banking include, lowering transaction costs, satisfying customers demand and creating sustainable competitive advantage. There is no question that these factors are all relevant to the Ethiopian banking sector. However, there is another debate that concludes E-banking will not bring customer satisfaction, since customers will lose human interaction, hence the bank's has to make key trade-off in launching e-banking, lowering costs against less satisfying customers (Mas, 2008). This is relevant for developing countries, like Ethiopia where delivery of services highly relies on human interaction and consumers trust and confidence is still associated with human interaction. Nonetheless, in today's globalization, and development of technology, it is inevitable that banks' need to change their

business model in a way that brings more efficiency and service quality. This is even emphasized for developing countries like Ethiopia where there is a need to bring foreign exchange inflows into the country. The adoption and development of e-banking will not only relate with the advantage of cost reduction to the banks but it is related with an efficient and cost effective way of becoming an international bank with its impact of the economic development for the country. Schmith (2010:2) explained the potential of e-banking as it expands consumer market, increases access to banking system and creates macroeconomic efficiency. Schmitch (2010:20) further substantiated this conclusion by stating that "e-banking can serve as a gateway for unbanked society which constituted 70% of the population" and it has a potential to provide cost saving advantage of 1% of GDP annually over paper based system". It has been said that there is a correlation between e-banking development and expansion of export, travel and tourism as these sectors development depend on the effective and efficient fund access given to consumers to make payment at purchase (Schmitch, 2010).This in a sense established that the adoption e-banking will have an impact on the development of an international business in a country, since it offers an efficient and effective payment options across border.

2.1.5. History of Electronic Banking in Ethiopia

According to (Worku, 2010).without doubt the banking industry in Ethiopia is underdeveloped and therefore there is an all immediate need to embark on capacity building arrangements and modernize the banking system by employing the state of the art technology being used anywhere in the world. With a growing number of import-export businesses, and increased international trades and international relations, the current banking system is short of providing efficient and dependable services and therefore all 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 (Worku, 2010). Undeniably the largest state-owned bank, Commercial Bank of Ethiopia, introduced ATM service for local users in 2001 with its fleet of eight ATMs located in Addis Ababa. Moreover, CBE has had Visa membership since November 14, 2005. However, 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 electronic payment systems.

2.1.6. Benefits of Electronic Banking

Electronic banking services are becoming the preferred way of making transactions in the developed world due to the fact that they understand the benefits very well through long years of using them in their economy (Dawd, 2004). The benefits of having electronic banking system can be seen from different perspectives as follows.

2.1.6.1 Benefits to Customers

E-Banking offers substantial advantage to customers in the form of convenience, timesaving and easy access to the banking services. The main benefit from the bank customer's point of view is significant saving of time by the automation of banking service processing and introduction of an easy maintenance tools for managing customer's money. The main advantages of E banking for corporate customers' are - Reduce costs in accessing and using the banking service - Increased comfort and time serving Transaction can be made even after banking hour without the physical interaction of the bank 24 hours a day. This increase the productivity of both the bank and the company - Quicq and continuous access of information and corporation will have easier access to information as, check multiple accounts at the click of a button, better cash management (Bank Away, 2001).

2.1.6.2. Benefit For Banks:

According to (Jayawardhena& Foley, 2000) the primary benefits of E- Banking are as follow:-

Price-In the long run a bank can save on money by not paying for tellers or for managing branches. Plus, it's cheaper to make transactions over the Internet.

Customer Base- the Internet allows banks to reach a whole new market- and a well off one too, because there are no geographic boundaries with the Internet. The Internet also provides a level playing field for small banks who want to add to their customer base.

Efficiency- Banks can become more efficient than they already are by providing Internet access for their customers. The Internet provides the bank with an almost paper less system.

Customer Service and Satisfaction- Banking on the Internet not only allow the customer to have a full range of services available to them but it also allows them some services not offered at any of the branches. The person does not have to go to a branch where that service may or may not be offer. A person can print of information, forms, and applications via the Internet and be able to search for information efficiently instead of waiting in line and asking a teller. With more better and faster options a bank will surely be able to create better customer relations and satisfaction.

Image- A bank seems more state of the art to a customer if they offer Internet access. A person may not want to use Internet banking but having the service available gives a person the feeling that their bank is on the cutting image.

2.1.6.3 Benefits to General Economy

Electro banking as already stated has greatly serviced both the public 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, reduce 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 helped banks in better monitoring of their customer base. This is a useful tool in the hand of the bank device suitable commercial packages that are 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 (Mahdi Salehi, 2004).

2.1.6.4 The nature of commercial banks

A commercial bank is a type of bank that provides services such as accepting deposits, making business loans, and offering basic investment products. Commercial bank can also refer to a bank or a division of a bank that mostly deals with deposits and loans from corporations or large businesses, as opposed to individual members of the public (retail banking). In the United States the term "Commercial bank" was often used to distinguish it from an investment bank due to differences in bank regulation. After the great depression, through the Glass–Steagall Act, the U.S. Congress required that commercial banks only engage in banking activities, whereas investment banks were limited to capital market activities. This separation was mostly repealed in the 1990s.(Mahdi Salehi, 2004).

As we see in the above E banking provides many advantages for banks and customer's .e-banking has made life much easier and banking much faster for both customers and banks.

As summary Main advantages are as follows.

- It saves time spent in banks
- It provides ways for international banking.
- It provides banking throughout the year 24/7 days from any place have internet access.
- It provides well-organized cash management for internet optimization
- It provides convenience in terms of capital, labor, time all the resources needed to make a transaction.
- Taking advantage of integrated banking services, banks may compete in new markets, can get new customers and grow their market share.
- It provides some security and privacy to customers, by using state-of-the-art encryption and security technologies.

2.1.7 Types of E-banking Tools/Channels

The tools/channels use in executing E-banking include plastic cards (debit cards, credit cards, prepaid cards and smart cards), personal computers, telephone, mobile phones, internet, ATM's, POS or point of interaction machines (Morufu and Taibat, 2012). The description of the above mentioned tools/channels are as follows: -

A. Plastic cards

Debit cards: - Debit cards are also known as check cards. Debit cards look like credit cards or ATM (automated teller machine) cards, but operate like cash or a personal check .Debit card is a banking card enhanced with ATM and POS features so that it can be used at merchant locations. Debit cards allow you to spend only what is in your bank account. It is a quick transaction between the merchant and your personal bank account. A debit card is linked to an individual's account, allowing funds to be withdrawn at the ATM and point of sale without writing a cheque. When using a debit card to pay for goods and services, the purchase amount is deducted from the cardholder's checking account. The types of debit card include online debit card and offline debit card. With offline debit card, debit is not made immediately. Benefits of using a debit card include making the payment process at the checkout counter quicker and more convenient, eliminating the need to carry a cheque book and a lot of cash, using it at locations where personal cheques are not accepted, and reducing the possibility of loss or theft of cash (Okoye, 2013).

Credit Cards: - A credit card is different from a debit card in that it does not remove money from the user's account after every transaction. In the case of credit cards, the issuer lends money to the consumer (or the user) to be paid to the merchant. A credit card allows the consumer to revolve their balance at the cost of having interest charged. The parties involved in a credit card transaction include cardholder, card issuing bank, merchant, acquiring bank, independent sales organization, merchant account, credit card association, transaction network, and affinity partner (Ibid).

Smart Card:-The smart card is an amazing piece of technology. It is the size of a regular ATM card but is capable of storing over a 1000 times more data. The data can be encrypted and hence the card is completely temper-proof. The card can also be personalized to the holder by printing personal and other details on the card face. Smart card is issued to the customers to provide adequate and timely credit support for their cultivation needs including all purchases. Customers can use this card wherever they needs. The loan amount sanctioned to the customer will be recorded in the card. The merchants can sell the goods to the customer based on the card and they can collect the amount from the local branch of the issued bank or any other bank (Vassiliou, 2004).

B. Automated Teller Machines (ATM): An automated teller machine or automatic teller machine (ATM) is an electronic computerized telecommunications device that allows a financial Institution's customers to directly use a secure method of communication to access their bank accounts, order or make cash withdrawals (or cash advances using a credit card) and check their account balances without the need for a human bank teller. Many ATMs also allow people to deposit cash or cheques, transfer money between their bank accounts, top up their mobile phones' pre-paid accounts or even buy postage stamps. On most modern ATMs, the customer identifies him or herself by inserting a plastic card with a magnetic stripe or a plastic smartcard with a chip that contains his or her account number. The customer then verifies their identity by entering a passcode, often referred to as a PIN (Personal Identification Number) of four or more digits. Upon successful entry of the PIN, the customer may perform a transaction. The growth of ATM's has rapidly grown in the public places around the globe.

C. Point-of-Sale Transfer Terminals (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 (Malak, 2007).

D. Internet / extranet banking-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.

E. Mobile banking:- can be defined as an occurrence when customers access a bank's networks using cellular phones, pagers, personal digital assistants, or similar devices through telecommunication wireless networks (Segun, 2011). It means performing banking activities which primarily consists of opening and maintaining mobile/regular accounts and accepting deposits; furthermore, it includes performing fund transfer or cash-in and cash-out services using mobile devices (NBE Directive, FIS-01-2012).

F. Tele-banking: - according to Habibur, Mohammed and Sayeed (2012) Telephone Banking service is provided by phone. To access an account it is required to dial a particular telephone number and there are several options of services. Options included;. Checking account balance Funds transfer between current, savings and credit card accounts Bill payments Stock exchange transaction Receive statement via fax Loan payment information

2.1.8 Types of E-banking Risks

Although E-banking has bright prospects, it contains some financial risks as well. The major E-banking risks according to FSA (2010) include:-

2.1.8.1 Operational risks

There are three main types of operations risk Banks faces: such as volume forecasts, management information systems and Outsourcing. Accurate volume forecasts have proved difficult - One of the key challenges encountered by banks is how to predict and manage the volume of customers that they will obtain. Many banks going on-line have significantly misjudged volumes. When a bank has inadequate systems to cope with demand it may suffer reputational and financial damage, and even compromises in security if extra systems that are inadequately configured or tested are brought on-line to deal with the capacity problems. The second type of operations risk concerns management information systems. Again, this is not unique to E-banking. Banks may have difficulties in obtaining adequate management information to monitor their eservice, as it can be difficult to establish/configure new systems to ensure that sufficient, meaningful and clear information is generated. Such information is particularly important in a new field like E-banking. Finally, a significant number of banks offering E-banking services outsource related business functions, e.g. security, either for reasons of cost reduction or, as is often the case in this field, because they do not have the relevant expertise in-house.

Outsourcing a significant function can create material risks by potentially reducing a bank's control over that function Security risk: Security issues are a major source of concern for everyone both inside and outside the banking industry. E-banking increases security risks, potentially exposing hitherto isolated systems to open and risky environments. Security breaches essentially fall into three categories; breaches with serious criminal intent (e.g. fraud, theft of commercially sensitive or financial information), breaches by 'casual hackers' (e.g. defacement of web sites or 'denial of service' - causing web sites to crash), and flaws in systems design and/or set up leading to security breaches (e.g. genuine users seeing / being able to transact on other users' accounts). All of these threats have potentially serious financial, legal and reputational implications.

2.1.8.2Reputational risk:

This is considerably heightened for banks using the Internet. For example, the Internet allows for the rapid dissemination of information, which means that any incident, either good or bad, is common knowledge within a short space of time. Internet rumors can easily become self-fulfilling prophecies. The speed of the Internet considerably cuts the optimal response times for both banks and regulators to any incident. Banks must ensure their crisis management processes are able to cope with Internet related incidents (whether they be real or hoaxes). Any problems encountered by one firm in this new environment may affect the business of another, as it may affect confidence in the Internet as a whole. There is therefore a risk that one rogue e-bank could cause significant problems for all banks providing services via the Internet. This is a new type of systemic risk and is causing concern to E-banking providers. Overall, the Internet puts an emphasis on reputational risks.

2.1.8.3 Strategic Risk:-

E-banking is relatively new and as a result there can be lack of understanding among senior management about its potential and implications. People with technological but not banking skills can end up driving the initiatives. E-initiatives can spring up in an incoherent and piecemeal manner in firms. They can be expensive and can fail to recoup their cost. Furthermore, they are often positioned as loss leaders (to capture market share), but may not attract the types of customers that banks want or expect and may have unexpected implications on existing business lines.

2.1.8.4. Business Risk: -

Business risk is also significant in E-banking. Given the newness of E-banking, nobody knows much about whether E-banking customers will have different characteristics from the traditional banking customers. They may well have different characteristics. This could render existing score card models inappropriate, thus resulting in either higher rejection rates or inappropriate pricing to cover the risk.

Banks may not be able to assess credit quality at a distance as effectively as they do in face to face circumstances. It could be more difficult to assess the nature and quality of collateral offered at a distance, especially if it is located in an area the bank is unfamiliar with (particularly if this is overseas).

2.1.8.5. Security: -

Security issues are sources of concerned for everybody more especially as it concerns banking industry. E – banking are prone to security breaches such as fraud, theft of commercially sensitive or financial information, defacement of web sites or denial of service and flaws in system design and/or set up leading to security breaches. All these security breaches have potentially serious financial, legal and reputational implications. In addition, legal risks (e.g. without proper legal support, money laundering may be influenced); credit risks; market risks; and liquidity risks are also E-banking risks. Therefore, identification of relevant risks, and formulation and implementation of proper risk mitigation policies and strategies are important for banks while performing E-banking. Among these security risk that affects the network system is the major one FSA.

2.2 Empirical literature

2.2.1. Challenges of Electronic Banking

The challenges of e- banking Explanations vary widely among sectors and countries and are most commonly related to lack of applicability to the business, preferences for established business models, (OECD, 2004). Common challenges include;

- Enabling factors (availability of ICT skills, qualified personnel, network infrastructure);
- Cost factors (ICT equipment and networks, software and re-organization);
- Security and trust factors (security and reliability of ecommerce systems, uncertainty of payment methods, legal frameworks and intellectual property right);
- And challenges in areas of management skills, technological capability, productivity and competiveness. Lack of reliable trust and redress systems and cross country legal and regulatory differences was also impede e-commerce adoption (OECD, 2004).

It is however important to note that challenge to e-commerce adoption work differently according to organizational type and culture. Areas of training and people development need to be addressed Harrison (2012).

The study that was conducted by Isaac (2005) indicated that the challenges for the adoption of E-banking in Africa are security, human face i.e. customers still value personalized and responsive services from their bankers, poor and/or lack of technological infrastructure especially in the rural areas, lack of proper legislation governing e-transactions and preference to paper money, as opposed to "virtual" cash in transactions etc. In most developing countries the most critical challenges are very limited information and communication infrastructure.

According to Chethan V P, 2016).And According to some researches works the identified challenges. **Major Challenges of E banking are:** Most of them are basic services only the deregulation of e-banking industry coupled with the emergence of new banking technology is enabling new competitors to enter the financial services markets quickly and efficiently. However it needs to be recognized that perception norms and an improvement in functioning of e-banking services.

- **Acceptance of Customer:** Proper understanding of the customer is the major aspect of the E-banking. It is known that computer literacy in Ethiopia is yet very low and is problems in fast acceptance of internet. Attitude of the Ethiopian customer needs to be changed by giving awareness about technical terms in internet banking. However, it supports in the fast changing technical scenario, the obsolesce of technology fast. Hence there is always lack of skilled personal and fear of technology.
- **Costly Technology:** In connection with Startup cost e-banking is huge at initial level for acquiring personal computer and other equipment's; oneself to do online banking is still not with reach of the middle class & upper middle class customers. The cost of maintenance of all equipment's like, modem, routers, bridges and network management systems is very high. The cost of sophisticated hardware and software and skill level of people needed. In Internet banking there is need of skilled employees or knowledgeable professionals to route the banking transactions via internet. Banks can employ software application developers, database administrators and training to existing bank staff on the changing systems and procedures who can handle Internet banking applications under proper supervision.
- **Issues in Security**: In a paper less transactions, many problems of security are involved. A secrecy threat as circumstensive decision to cause the economic hardship to data, destruction

of network resources disclosure, modification of data or fraud, denial in services and distortion of information. Providing appropriate security of using encryption techniques, implementation of firewalls and virus protection software etc. According to Tadesse and Kidan (2005), some of the major security challenges include the following. Disclosure of private information in e-payment there are many ways in which private information may be accessed by attackers. For instance hackers may intercept network traffic to get confidential data. It is also possible to access private data stored on a computer connected to the internet. This data could be used to make fraudulent transactions that could lead to a loss of money.

A. Counterfeiting: is the creation of new data or duplication of existing data, which are technically valid but not legally admissible. Cloning of e-money for double spending and creation of fake accounts are example of counterfeiting. One popular form counterfeiting Attacks is duplication of electronic data from a payment cards (e.g. ATM card) is creating Duplicate cards and withdraw money from the accounts.

B. Illegal alteration of payment data: Illegal modification of payment information may result In loss of money. This may again Results in the loss of customer confidence. Alterations could be made to the transaction Account numbers resulting in misdirected payments, to the payment amounts or to Electronic balances on electronic. Another challenge in e-payment Includes usage of a Fraudulent web site by an attacker to collect credit card number and other personal and/or financial information. According to Taddesse and Kidan (2005), the Most common method of securing e-banking Services is using cryptographic based on technologies such as encryption and digital Signatures. However, applying these technologies will reduce its efficiency by making it Slower and as a result some sort of compromising has to be made between security and Efficiency.

- **Legal Issues:** In today's banking world, legal framework for recognizing the validity of banking transactions. Conducted through the internet is still being put in place? Information technology act provides security &legal framework for e-commerce transactions as well as e-banking. Information technology act or RBI suggested that criterion of Digital Signature Certification Board for authentication of electric records and communication with digital signatures.
- **Other Business Related Restrictions:** Not all transactions can be carried electronically; many deposits and some withdrawals require the use of physical services. Some banks have

automated to their customers (front end) but still largely depend upon manual process (back end).It result, most of clientele or customers were restricted by lack and awareness and due to technical problems.

- **Transparency in offering:** Banks will strive to adopt best practices in corporate governance and Corporate Social Responsibility (CSR) this will build brand image and can help them to enhance their confidence of international investors. Banks much towards better corporate governance standards and adoption of uniform accounting standards and disclosure requirements.
- **Adoption ofProper Organization Structure:** Banks may require to adopt flatter organization structure for judicious blending of needs foe greater delegation of power, decentralization, customer centric business models, quickly reaction of customer needs, learn constantly from customers, provide customer access, whatever and however they want to transact and interact especially for catering younger Information Technology survey population.
- **Lack of Technological Infrastructure:** The most common communication infrastructure for e-banking is computer network such As internet. Most e-banking systems use internet to communicate with their customers. The Other communication infrastructure available for e-banking users is the mobile Network Used for mobile phone. Automating the banking activities is another Prerequisite for E- Banking system. Closed financial network that links banks and other Financial Institutions is Necessary. This network is usually used between banks or other Financial Institution for clearing and payment confirmation.
- **Non-Readiness of Banks And Other Stake Holders (Accessibility):**
  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 amongbanks, Lack of trained personnel in key organizations and Tendency to be content with the existing structures
- **Socio-Cultural Challenges:** Cultural and historical differences in attitudes and the use of different forms of money (e.g. use of credit card in North America and use of debit cards in Europe) complicate the task of developing an electronic payment system that is applicable at international level. Difference in the degree of the required security and efficiency among peoples of different cultures and level of development aggravates the problem (Tadesse and Kidan, 2005).

- **Others Challenges:** There are some other challenges which can be considered as hindrances in the implementation of e-banking services. One of these issues is the Standardization of software which is necessary to offer e-banking services. Proven high quality software is a must for high-tech banking services. For sophisticated types of services,
  the standardization of operating systems, systems software and application software throughout the banking industry is a necessary condition, which may have to be pursued (Muvva and Sisay, 2011). According to Husni and Noor (2011), the provision of e banking services require heavy investment costs. In this regard banks have to invest huge amount of money in order to provide e-banking services. They have to buy and install the required systems and facilities which lead increased establishment expense. They have to incur heavy maintenance costs also. This may not be the problem for well-established banks. But in case of new and small banks, they have to face financial problems at the initial stage. Banks in developed countries have already deployed huge amount of investments for e-banking services. For banks in developing and underdeveloped countries, this may create financial crisis (Ibid, 2011).

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter provides various methods and the procedures that were adopted in conducting the study. This chapter contains, Research design, Source of data, Sampling Method, Population of the study, Sampling Size, Data Collection Method and Method of Data Analysis

3.1. Research design

The design of this thesis was to conduct an Exploratory and Descriptive research in order to gather as much information as possible concerning the challenges and opportunities of E-banking. Exploratory research is often used when a problem is not well known, or the available knowledge is not absolute. In this study researcher aimed to explore the challenges and opportunities of E-banking in the case of commercial bank of Ethiopia. To do that, an exploratory type of the study was selected. Because; it gives valuable insight of the problem and provides suggestive ideas through reviewing information from problem area. On the other hand, this research focused on describing the current situation of the problem and examining the main challenges and opportunities of E-banking in the case of commercial bank of Ethiopia. Moreover, this research aims to explain the driving force of e-banking adoption and customer perception of e- banking in commercial bank of Ethiopia. And Descriptive research was used to fulfill the objective. And To answer the research questions, therefore questionnaire was used. To identify and measure opportunities and challenges the study used quantitative research approach according to (kumar, 2005) quantitative research approach is used to the purpose of the research data collected process and analysis since the purpose of quantitative research is to quantify the situation this research implement quantitative type of approach to analyze and interpret the data collected through questioner

3.2 Target Population, Sample Size, Sampling Method

3.2.1 Target Population

All the items under consideration in any field of inquiry constitute a ‘universe’ or ‘population’. A complete enumeration of all the items in the ‘population’ is known as a census inquiry whereas taking sub groups that can represent the population is called sample study (Kothari, 2004). The target population for this study was customers of CBE who are using different E- banking services in commercial bank of Ethiopia Addis Ababa. Determination of customers is established with the

criteria of maintaining an account. Therefore the populations under study are those individual who are using e- banking in CBE. These customers are users of E-banking having different demographic background in terms of sex, age, educational background, etc. The target population can be considered as infinite population since the number of customers can not be determined at specific point in time.

Hence, the populations of the study were customers of commercial bank of Ethiopia on Grade four branches they are selected based on the service they deliver and the number of customer they have for their service. Since the population is massive the selection of the samples might be restrained to four branches from four districts (North, South, West and East Addis) one branches from each of district of the CBE. These are because those branches are fairly performer in every day transaction and these are the personnel who carry out the actual activities of the bank.

3.2.2 Sampling Size

Sample size determination plays significant role that uses primary data seeking from the use of questionnaire. The size of sample should neither be excessively large, nor too small but it should be optimum. An optimum sample is one which fulfills the requirements of efficiency, representativeness, reliability and flexibility (Kothari, 2004).The sample size for the study is calculated from the total population i.e. the number of active customers using E-banking in CBE braches under four Addis Ababa districts are 2,231,962 (commercial bank of Ethiopia, 2019). Users of E-banking and from those four districts that are selected Four: Grade 4 branches, namely from East: Mesqle square West district: Alem Bank, North districts: Addis Ababa branch and South district Finfine branch. According to Israel (2013), there are different strategies to calculate sample size. These include using census for large population, using a sample size of similar study, using published sample size tables and using formula to calculate sample size. As per the on-line published table of sample size, the sample size taken from a population of more than 50,000 with a 95%Confidence interval and a 5% margin of error is 384..According to Cochran (1963) a large population's sample size can be determined by using the formula

$$n = \frac{z^2 \; p \; x \; q}{e^2}$$

Where n = required sample size

Z = Degree of confidence (i.e. 1.96)

P = Probability of positive response (0.5)

q = Probability of negative response (0.5)

e= Tolerable error (0.05)

Given that, the sample size for this study was determined by using the estimation formula Developed by Cochran (1963, p.75).The reason for choosing this formula is that; it is mostly used by other researchers to measure customers of commercial bank of Ethiopia of the four districts of branches and the total population number of this investigation is also very large and unknown. And the sample size of 96 each. Hence, with a maximum variation of p=0.5, confidence level of 95% and ±5% precision, the resulting sample size for this study will be:

$$n = \frac{z^2 \; p \times q}{e^2}$$

$$n = \frac{z^2 \; p \times q}{e^2}$$

$$\frac{(1.96)2 \times 0.5 \times 0.5}{(0.05)2}$$

$$n = \frac{3.8416 \times 0.25}{0.25}$$

$$n = 384.16 \equiv 385 \text{ Respondents}$$

However, many researchers commonly add some margin to the sample size to compensate for non-response (Israel, 2013, p.75). Taking this into consideration the researcher added 5% of the sample size and distributed 398 questionnaires in order to increase the response rate while gathered the required data from the representatives of the target population of the study.

3.2.3 Sampling Method

The sampling that the researcher used for the collection of data was convenience sampling method this sampling method is chosen due to its difficulty to find the customers that would select randomly because of E-banking is at an evolutionary stage thus finding person who use such service is quiet difficult so this method were used for data collection. Plus to this Convenience sampling is a non-probability sampling technique where subjects are selected because of their convenient Accessibility and proximity to the researcher Convenience sampling is very easy to carry out and requires relative

little cost and time to carry out. And among the 384 questioner distributed 346 questionnaires were valid the other 39 were invalid.

3.3. Source of data

For this study the researcher use two types of data source, primary and secondary source .primary data was collected from Commercial Bank of Ethiopia employees, customers of commercial bank of Ethiopia, owners/operators of business entities, individual users And on the other hand, previous studies, literatures, journals and publication are used as secondary data reference.

3.4. Data Collection Method

To obtain all sources of data pertaining to the subject of the study, questionnaire was prepared and disseminate for the respondents, Questionnaire was prepared by English language. Most questions are about The challenge and opportunities of E- banking was investigated the use of structured questionnaire prepared primarily based on 5 point lickert scale rating from 1 (strongly disagree) to 5 (strongly agree). The questionnaire encompasses all the chosen dimension of and client orientated provider personnel behavior to analyze the challenge and opportunities of E-banking in the case of commercial bank of Ethiopia. And also some questions were close ended. However, open ended question also was presented in order with the possibility of respondents to provide other related additional information which augment or support result obtained from quantitative data. It was deliberating collected facts from the384customersthat were from chosen branches as referred to in the pattern frame via skill of stratified random sampling method. The challenge and opportunities of e banking was analyzed using the use of Statistical Package for Social Science (SPSS).

3.5. Method of Data Analysis

Descriptive analysis technique was used to identify the background of respondents in the aspect of age, gender, occupational status, and educational level. In order to analyze the quantitative data obtained through questionnaire, first the data was tabulated, analyzed and interpreted by using the appropriate statistical tools (descriptive statistics) like; frequencies, percentage and mean supported by SPSS 20 software. The data obtained through document analyses as well as data collected using open-ended questions of the questionnaire. Finally, the data collected from the respondents was analyzed and interpreted on the base of which major findings have been summarized and presented and then conclusions and recommendations has been forwarded.

CHAPTER FOUR

Results and Discussions

This chapter deals with the results and analysis of data collected via questionnaire and document analysis. The remaining part of this chapter is organized as follows. Section.4.1 presents the overview of demographic information of the respondents. Followed by questions about general information about electro banking.in section 4.2 Section 4.3 presents the result and discussion regarding the challenges of E-banking service in commercial bank of Ethiopia. Driving forces of e- banking in CBE are presented in section 4.4, section 4.5 presents the customer perception of e- banking in CBE. The last section about opportunities of E- banking in commercial bank of Ethiopia presented in. To find the major out puts of the study and to give important recommendations, the collected data analyzed and discussed, accordingly the analysis and important findings from the collected data are discussed below. The analysis for the questionnaire is purely quantitative. A total of 385 questionnaires have been distributed to the sample respondents and 346 collected; this makes the response rate 89.87%.

Table 4.1 *Demographic characteristics of respondents.*
Table 4.1.1 Demographic characteristics of respondents.

Variables		Frequency	Percentage
Age	<25	81	23.4%
	26-35	106	30.6%
	36-45	105	30.3%
	46-55	25	7.2%
	>55	29	8.4%
Gender	Male	190	54.92%
	Female	156	45.08%
Occupational status	Student	35	10.1%
	Employed	212	61.3%
	Unemployed	56	16.2%
	Other	43	12.4%

Educational level	Diploma/TVET	92	26.6%
	BA/BSC Degree	216	62.4%
	Master's degree	32	9%
	PHD	6	1.7%

Source: - own survey, 2019

As it shown on the above table, the highest percentage of participants in this study was males which are 190 out of the total who from 54.92% of the respondents. In the case of classification of respondents by age the highest percentage of participants are young (26-35 years old) which are 106 out of the total who from 30.6% of total respondents. Regarding the occupation status of the study participants, the highest percentage of them are employed that from 61.3% of the total participants. Which are 212 from the total. On the other hand, the highest percentage of the educational level of the study participants has become bachelor degree that from 62.4% of total participants. Which are 216 from the total.

TABLE 4.2 Questions about general information on Electro Banking

Table4.2. 1: when did you start using e banking facility?

Question		frequency	percentage
When did you start using E-banking facility?	Below one year	106	30.6%
	1-5 year	169	48.8%
	6-10 year	47	13.6%
	11-15 year	21	6.1%
	Above 15 year	3	0.9%

Source: - own survey, 2019

As it is shown on the above table, the highest percentage of participants in this study start using e-banking services from 1 year to five years provided by commercial bank of Ethiopia which are 169 out of the total who from 48.8% of respondents with the mean value 1.97.

Table 4.2.2what type of e-banking product do you use?

Question		frequency	percentage
What type of E-banking product or services do you have or use? You can chose more than once	ATM	343	99.13%
	POS MACHINE	142	41%
	Mobile banking	338	97.69%
	Internet banking	188	54.33%
	Debit card	252	72.83%
	Credit card	112	32.36%
	Others	108	31.2%

Source: - own survey, 2019

As stated in the above table the product/service provided by commercial bank of Ethiopia to their customer through banking channels the highest percentage of participants are using ATM E- banking services provided by commercial bank of Ethiopia. Which are 343 out of the total from 99.13%, followed by Debit card. Which 338 are out of the total who from 97.69%, then thirdly respondents use Mobile banking Which are 252 out of the total who from 72.83%, fourth they use Internet banking. Which are 188 out of the total who from 54.33%. POS which, are 142 out of the total who from 41%, Credit card banking are which 338 are out of the total who from 97.69% and at last most of the respondents use others which 108 are out of the total who from 31.2%,.

The next question is ‘’which of e- banking facility do you prefer? Why? And almost all of the respondents answered that ATM is more preferable than the others e- banking services because it is found everywhere, appropriate for them, easily without wasting time they can withdraw their money any time anywhere and in addition it is 24/7, they can get ATM facility with actual time and operated by themselves and it is easy to use. Next to ATM some respondents answered that mobile banking and mobile banking are preferable because like ATM u don’t have to go the given service area or place so wherever you are without moving you can get the service through your mobile.

Table 4.2.3. services options available to the customer once they have accessed e- banking

Question		frequency	percentage	mean
What service options are available to the customer once they have accessed E-banking? You can choose more than once!	Fund transfer	322	93.1%	1.98
	New account set-up	21	6.1%	1.06
	Insurance premium payment	44	12.7%	1.12
	Credit application	11	3.2%	1.03
	Balance inquiry	210	60.7%	1.66
	Bill presentment and payment	135	39%	1.39
	Cash withdrawal	346	100%	2
	Purchase of goods and services	257	74.3%	1.78
	Utility payment	182	52.8%	1.57

Source: - own survey, 2019

According to the above table the question is 'what service options are available to the customer once they have accessed e banking (you can choose more than one!)?' And majority of the respondents response is summarized as follow: Cash Withdrawal, Fund transfer, Purchase of goods and services, Balance inquiry, Utility payment, Insurance premium payment, Bill presentment and payments New account set-up and Credit application with mean value 2.00,1.98,1.78 ,1.66,1.57, 1.39,1.12,1.06 and 1.03 respectively.

Table 4.2.4: Are you comfortable with the use of the E-banking facility

Question		frequency	Percentage
Are you comfortable with the use of the E-banking facility?	Yes	36	10.40%
	No	310	89.5%

Source: - own survey, 2019

As it is shown on the above table, the highest percentage of participants in this study are not comfortable with the use of e- banking facility provided by commercial bank of Ethiopia which are 310 out of the total who from 89.5% of respondents .

Table 4.2.5: How effective and reliable is the E- banking facility you use often

Question		frequency	percentage
How effective and reliable is the E-banking facility you use often?	Very Effective	15	4.33%
	Effective	36	10.40%
	Satisfactory Effective	116	33.52%
	Not Effective	179	51.74%

Source: - own survey, 2019

As it is shown on the above table, the highest percentage of participants in this study are Not effective and not reliable is the E- banking facility they use often in commercial bank of Ethiopia which are 179 out of the total who from 51.74% of respondents .

Table 4.2.6 what is your level of satisfaction of E- banking facility you use?

Question		frequency	percentage
What is your level of satisfaction of E-banking facility you use?	Excellent	6	1.73%
	Very good	27	7.8%
	Good	41	11.84%
	Average	66	19.09%
	Poor	206	59.54%

Source: - own survey, 2019

As it is shown on the above table, the highest percentage of participants in this study are poor level of satisfaction of E- banking facility they use in commercial bank of Ethiopia which are 206 out of the total who from 59.54% of respondents .

Table 4.2.7 Are there any risks involved because of using electronic channels for delivering banking services to the customer?

Question		frequency	percentage
Are there any risks involved because of using electronic channels for delivering banking services to the customer?	Yes	194	56.06%
	No	152	43.93%

Source: - own survey, 2019

As it is shown on the above table, the highest percentage of participants in this said that there are risks involved because of using electronic channels for delivering banking services to the customer in commercial bank of Ethiopia which are 194 out of the total who from 56.06% of respondents.

Table 4.2.8If your answer for the above question is yes, which of the following do you think are corresponding risks? You can choose more than once

Question		frequency	percentage
If your answer for the above question is yes,	Transaction or operation risk	305	88.2%

which of the following do you think are corresponding risks?	Security risk	85	24.6%
	Compliance or legal risk	12	3.5%
	Reputation risk	121	35%
	Strategic risk	56	16.2%

Source: - own survey, 2019

As it is shown on the above table 4.8, the highest percentage of participants in this study who agreed on that there are risks involved because of using electronic channels for delivering banking services to the customer in commercial bank of Ethiopia which are 194 out of the total who from 56.06% of respondents . And As depicted in the above Table11The most respondents agreed sorted in descending order that Transaction or Operational risk main influencing risk followed by Reputation Risk , Security risk, Strategic risk and Compliance or Legal risk in commercial bank of Ethiopia. This is evidenced by the data collected from the respondents with mean score of 1.97, 1.86, 1.77, 1.67 and 1.11 respectively.

Followed to the above question, the next question is '' what measures you are taking to minimize this risks'' most of the Participants said that they will minimize it by calling to the service center of CBE(991), don't use in holidays because specially ATM it will swallow their card and to bring it back you have to wait 24 hours or even a day, talk to one of the branches manager specially about the legal or compliance risk and security risk, in (card banking, internet, mobile and SMS banking) hiding their personal password from others.

TABLE 4.3 Challenges of Electro banking

Table 4.3.1 Challenges of e banking

Challenges of e-banking		SD	D	N	A	SA	mean
Internet security is one of the problems in electronic banking service.	Frequency	21	19	79	111	116	3.81
	Percent	6.1%	5.5 %	22.8 %	32.1 %	33.5%	
Electronic banking services are less trustworthy for the fact that they	Frequency	33	75	36	96	106	3.46
	Percent	9.5%	21.7	10.4	26.9	29.7%	

are technology dependent.			%	%	%		
lack of educated and efficient staff in e-banking context	Frequency	33	35	68	139	71	3.31
	Percent	9.5%	10.1 %	19.7 %	40.2 %	20.5%	
Speed of service delivery	Frequency	8	20	84	106	128	3.94
	Percent	2.3%	5.8 %	24.3 %	30.6 %	37%	
Electronic banking services violate the privacy of the users like me.	Frequency	78	66	88	102	18	2.77
	Percent	22.5 %	17.3 %	25.4 %	29.5 %	5.2%	
It is hard to use electronic banking service because of very weak internet infrastructure.	Frequency	30	26	53	61	176	3.94
	Percent	8.7%	7.5 %	15.3 %	17.6 %	50.9%	
Because electronic banking services are not simple to operate, it is not comfortable to use them.	Frequency	54	58	101	91	42	3.02
	Percent	15.6 %	16.8 %	29.2 %	26.3 %	12.1%	
I feel that the price of electronic banking services is expensive.	Frequency	2	4	208	42	90	3.61
	Percent	0.6%	1.2 %	60.1 %	12.1 %	26%	
All electronic banking services are internet-based; and the cost of internet increases the cost of the overall service.	Frequency	5	25	155	13	148	3.79
	Percent	1.4%	7.2 %	44.8 %	3.8 %	42.8%	
Electro banking services may not perform well and may process payments incorrectly because of network problems.	Frequency	7	33	70	84	152	3.98
	Percent	2%	9.5 %	20.2 %	24.3 %	43.9%	
When and if transaction occur, I will get compensation from CBE	Frequency	136	71	63	61	15	2.27
	Percent	39.3 %	20.5 %	18.2 %	17.6 %	4.3%	
I am worried about using electronic banking because other people may	Frequency	17	30	156	99	44	3.5
	Percent	4.9%	8.7	45.2	28.7	12.5%	

be able to access my account			%	%	%		
It would take me lots of time to learn how to use electronic banking	Frequency	55	30	106	103	52	3.1
	Percent	15.9 %	8.7 %	30.6 %	29.8 %	15%	

Source: - own survey, 2019

As shown in the above table, the question posted to customers that is electronic banking services may not perform well and may process payments incorrectly because of network problems out of the total respondents 43.9% of the respondents strongly agree, 24.3% agree, 20.2% neutral and the rest 9.5% and 2% of the respondents were disagree and strongly disagree This implies that the majority of the respondents agreed with 68.2.% there is high degree of network problem; therefore network problem is one of the factor that should be considered in serving electronic banking in CBE. And for the question that it's hard to use electronic banking service because of very weak internet infrastructure out of the total respondents 50.9% of the respondents strongly agree, 17.6% agree, 15.3% neutral and the rest 7.5% and 8.7% of the respondents were disagree and strongly disagree .this shows the majority of the respondents agreed with 68.5% find using electro banking is hard because of very weak internet infrastructure so that CBE need to improve its internet infrastructure. And thirdly also for the question asked about the speed of service delivery out of the total respondents 37% of the respondents strongly agree, 30.6% agree, 24.3% neutral and the rest 5.8% and 2.2% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 67.6% of respondents find the speed of delivery is weak and CBE should deliver its E- banking services more effectively and quickly so that upon the above three questions show that with mean value of 3.98, 3.94 and 3.94 respectively. This implies that above the stated questions mostly the customers are challenged with that there is high degree of network problem; therefore network problem is one of the factors that should be considered in serving electronic banking in CBE.

Similarly the result shown on the above table revealed that for the question that was asked lack of internet security issue is considered as barrier for E-banking system, out of the total respondents 33.5% of the respondents strongly agree, 32.1% agree, 22.8% neutral and the rest 5.5% and 6.1% of the respondents were disagree and strongly disagree this shows the majority of the respondents with 65.6% of respondents find internet security is issue to be considered , And for the question that was asked all electronic banking services are internet-based out of the total respondents 42.8% of the respondents strongly agree, 3.8% agree, 44.8% neutral and the rest 7.2% and 1.4% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed 46.6% of

respondents find e-banking services are internet based so that CBE should make its e-banking services not biased with the internet, and the cost of internet increases the cost of the overall service have mean score of 3.81and 3.79 respectively. This result is consistent with the findings of Ghazi and Khalid (2012, p.9) and Khalfan et al 2006) in which all indicted that, security risk as a technological hindrance factor for the E-banking service in commercial bank of Ethiopia.

Electronic banking services are less trustworthy for the fact that they are technology dependent out of the total respondents 29.7% of the respondents strongly agree, 26.9% agree, % neutral and the rest 16.7% and 10% of the respondents were disagree and strongly disagree this shows the majority of the respondents with 68.6% of respondents find that using e- banking services is less trustworthy because it is technology dependent and out of the total respondents 12.5% of the respondents strongly agree, 28.7% agree, 45.2% neutral and the rest 8.7% and 4.9% of the respondents were disagree and strongly disagree this shows the majority of the respondents are neutral with 45.2% that they are neither worries nor not worried about using e- banking because other people may be able to access their account and agreed with 41.2% of respondents they are worried about using electronic mobile banking because other people may be able to access their account are another factor that hindered the expansion of technological innovation by the commercial bank of Ethiopia with mean value of 3.46 and 3.35 respectively. This result confirms the finding of Sathye (1999) which argued that the greatest challenge among the electronic banking sector is winning the trust of customers in the issue of security or perceived security risk as a key inhibitor in the expansion of online banking.

For the question asked to the respondents Lack of educated and efficient staff in banking context out of the total respondents 12.5% of the respondents strongly agree, 28.7% agree, 45.2% neutral and the rest 8.7% and 4.9% of the respondents were disagree and strongly disagree this shows the majority of the respondents are neutral with 45.2% with the mean value of 3.31. this implies that there is a challenge occurred because of uneducated and insufficient staff

Respondent's rated to the question that were asked It would take me lots of time to learn how to use electronic banking out of the total respondents 15% of the respondents strongly agree, 29.8% agree, 30.6% neutral and the rest 8.7% and 15.9% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 44.8% that find it takes time for them to learn how to use electro banking and Because electronic banking services are not simple to operate, it is not comfortable to use them out of the total respondents 12.5% of the respondents strongly agree, 28.7% agree, 45.2% neutral and the rest 8.7% and 4.9% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 45.2% find using e- banking services

in CBE are not simple to operate and not comfortable to use them and of the overall service have mean score of 3.1 and 3.02 respectively. This result is consistent with the findings of Ghazi and Khalid (2012, p.9) and Khalfan et al 2006) in which all indicted that, e- banking services are not simple, easy and takes a lot of time to learn e- banking in commercial bank of Ethiopia.

Lastly among the above questions the client of the banks or the respondents rated the questions that were asked that Electro banking violates the privacy of the users like me out of the total respondents 5.2% of the respondents strongly agree, 29.5% agree, 25.4% neutral and the rest 17.3% and 22.5% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 34.7% that e- banking violates their privacy and also for the question When and if transaction occurs, I will get compensation from CBE out of the total respondents 4.3% of the respondents strongly agree, 17.6% agree, 18.2% neutral and the rest 20.5% and 39.3% of the respondents were disagree and strongly disagree this shows the majority of the respondents disagree with 45.2% that they didn't get any compensation from CBE when transaction occur .with the lowest mean value of 2.77 and 2.27 respectively This result confirms the finding of Sathye (1999) which argued that the challenge that face respondents are that e- banking violates their privacy and lastly CBE didn't compensate the respondents when transaction occurs.

Table 4.4 Driving Forces of Electro Banking

Table 4.4.1 Driving force of e banking adoption in CBE

Driving forces		SD	D	N	SA	A	mean
Existence of high completion in the banking industry	Frequency	2	11	89	184	60	3.83
	Percent	0.6%	3.2%	25.7%	53.2%	17.3%	
Existence of high demand	Frequency	6	28	114	146	52	3.60
	Percent	1.7%	8.1%	32.9%	42.2%	15%	
Desire to improve organizational performance	Frequency	6	15	64	161	100	3.96
	Percent	1.7%	4.3%	18.5%	46.5%	28.9%	
Desire to improve the relationship with customers	Frequency	9	21	65	179	72	3.82
	Percent	2.6%	6.1%	18.8%	51.7%	20.8%	
Desire to reduce transaction cost	Frequency	7	36	87	125	91	3.74
	Percent	2%	10.4%	25.1%	36.1%	26.3%	

Desire to cover wide geographical area	Frequency	4	25	96	128	93	3.81
	Percent	1.2%	7.2%	27.7%	37%	26.9%	
Desire to build organizational reputation	Frequency	4	38	73	145	86	3.78
	Percent	1.2%	11%	21.1%	41.9%	24.9%	
Desire to satisfy customer	Frequency	9	21	60	152	104	3.92
	Percent	2.6%	6.1%	17.3%	43.9%	30.1%	

Source: - own survey, 2019

There are factors influencing adoption of E-banking technology products in commercial bank of Ethiopia. As depicted in the above Table 4.4.1 indicated that most respondents agreed that desire to improve bank performance out of the total respondents 28.9% of the respondents strongly agree, 46.5% agree, 18.5% neutral and the rest 4.3% and 1.7% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 75.4% desire to improve organizational performance is a driving force to adopt e- banking in CBE and desire to satisfy customer need out of the total respondents 30.1% of the respondents strongly agree, 43.9% agree, 17.3% neutral and the rest 6.1% and 2.6% of the respondents were disagree and strongly disagree this Shows the majority of the respondents agreed with 74% were the main influencing factors for adoption and development of E-banking technology, in which mean score are founded 3.96 and 3.92, respectively. Significant proportion of respondents also said that competition from other banks out of the total respondents 17.3% of the respondents strongly agree, 53.2% agree, 25.7% neutral and the rest 3.2% and 0.6% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 70.5 % of respondents has a strong influence for adoption and development E-banking technology in Commercial bank of Ethiopia as a mean value is 3.83. Hence, adoption and development of E-banking technology is used as a defensive mechanize against competitive activities. This result is in line with finding by Isaac (2005).

The result further revealed that most respondents asserted that desire to improve the relationship with customers out of the total respondents 20.8% of the respondents strongly agree, 51.7% agree, 18.8% neutral and the rest 6.1% and 2.6% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 72.5% of respondents find CBE driving force to adopt e-banking is to improve the relationship with its customer , desire to cover wide geographical area out of the total respondents 26.9% of the respondents strongly agree, 37% agree, 27.7% neutral and the rest 7.2% and 1.2% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 63.9% of respondents find CBE driving force to adopt e- banking is to

be available and to give the service to customers across the country and desire to build organizational reputation out of the total respondents 24.9% of the respondents strongly agree, 41.9% agree, 21.1% neutral and the rest 11% and 1.2% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 66.8% of respondent find the desire to build organizational reputation are found as the main drivers for adoption and development of E-banking technology in commercial bank of Ethiopia. This is evidenced by the data collected from the respondents with mean score of 3.82, 3.81, and 3.78, respectively.

Last but not least, other driving factors that initiate the commercial bank of Ethiopia for adoption and development of E-banking technology in CBE are desire to reduce transaction cost out of the total respondents 26.3% of the respondents strongly agree, 36.1% agree, 25.1% neutral and the rest 10.4% and 2% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 62.4% of respondents find the desire to adopt e- banking is to reduce transaction cost and existence of high demand that enforce commercial bank of Ethiopia is to adopt technological innovation out of the total respondents 15% of the respondents strongly agree, 42.2% agree, 32.9% neutral and the rest 8.1% and 1.7% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 57.2% of respondents that the high demand of customer is the factor for adoption of e- banking in CBE . This agreement is based on the responses of the respondents with mean score 3.74 and 3.60, respectively. .

TABLE 4.5 Customers perception of Electro banking

Table 4.5.1 Customer's Perceptions Of E-Banking

Items about perception of e-banking		**SD**	**D**	**N**	**A**	**SA**	**mean**
Electronic banking is easy to conduct banking transactions	Frequency	9	14	85	146	92	3.86
	Percent	2.6%	4%	24.6%	42.2%	26.6%	
Electronic banking is convenient way to manage finance	Frequency	2	23	96	154	71	3.77
	Percent	0.6%	6.6%	27.7%	44.5%	20.5%	
Electronic banking will help to manage finances	Frequency	10	17	89	139	91	3.82

more effectively and efficiently	Percent	2.9%	4.9%	25.7%	40.2%	26.3%	
Electronic banking is compatible with my life style	Frequency	0	23	122	149	52	3.66
	Percent	0%	6.6%	35.3%	43.1%	15%	
Electronic banking gives me greater control over my finance	Frequency	10	26	105	171	34	3.55
	Percent	2.9%	7.5%	30.3%	49.4%	9.8%	
Electronic banking is useful to manage financial resource	Frequency	9	19	104	170	44	3.63
	Percent	2.6%	5.5%	30.1%	49.1%	12.7%	
Electronic banking fits with my working style	Frequency	7	25	76	166	72	3.78
	Percent	2%	7.2%	22%	48%	2.8%	
Electronic banking is confident over security aspect	Frequency	12	19	81	175	59	3.72
	Percent	3.5%	5.5%	23.4%	50.6%	17.1%	
Electronic banking is faster way of getting banking service	Frequency	6	14	92	122	112	3.92
	Percent	1.7%	4%	26.6%	35.3%	32.4%	
Electronic banking requires very less mental effort	Frequency	41	46	90	136	33	3.21
	Percent	11.8%	13.3%	26%	39.3%	9.5%	

Source: - own survey, 2019

Respondent rated that electronic banking is faster way of getting banking service out of the total respondents 32.4% of the respondents strongly agree, 35.3% agree, 26.6% neutral and the rest 4% and 1.7% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 67.7% of respondents find electronic banking is faster way of getting banking service and it is easy to conduct banking transactions out of the total respondents 26.6% of the respondents strongly agree, 42.2% agree, 24.6% neutral and the rest 4% and 2.6% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 68.8% of respondents find using e- banking is easy to conduct their banking transactions and

also for the question electronic banking will help to manage finances more effectively and efficiently out of the total respondents 26.3% of the respondents strongly agree, 40.2% agree, 25.7% neutral and the rest 4.9% and 2.9% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 66.5% of respondents find electronic banking will help them to manage their finances more effectively and efficiently with a mean value of 3.92, 3.86 and 3.82 respectively. . In line with the finding of Sulaiman ,Lim and Wee (2005)) These result implies, that using online banking system helps to perform banking activities is easily manner.

Electronic banking fits with my working style out of the total respondents 20.8% of the respondents strongly agree, 48% agree, 22% neutral and the rest 7.2% and 2% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 68.8%that find Electronic banking fits with their working style and For the question that was asked Electro banking is convent way to manage the finance out of the total respondents 20.5% of the respondents strongly agree, 44.5% agree, 27.7% neutral and the rest 6.6% and 0.6% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 65% of respondents that find Electro banking is convent way to manage their finance and Electro banking is confident over security aspect out of the total respondents 17.3% of the respondents strongly agree, 50.6% agree, 23.4% neutral and the rest 5.5% and 3.5% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 67.7% of respondents find Electro banking is confident over security aspect and also electro banking is useful to manage financial resources out of the total respondents 12.7% of the respondents strongly agree, 49.1% agree, 30.1% neutral and the rest 5.5% and 2.6% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 61.8% of respondents that find electro banking is useful to manage their finance and additionally electronic banking gives them greater control over their finance out of the total respondents 9.8% of the respondents strongly agree, 49.4% agree, 30.3% neutral and the rest 7.5% and 2.9% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 59.2% of respondents find electronic banking gives them greater control over their finance with mean value of 3.78, 3.77, 3.72, 3.63 and 3.55 respectively. This indicates that, the electronic banking highly influencing the customers' perceptions. In line with the finding of (Sulaiman, Lim and Wee 2005) suggests that, one of the implications of customer perceptions about E-banking help customers to manage their activity.

Last but not least, the customers perception about e- banking in CBE is that was asked E- banking requires very less mental effort out of the total respondents 9.5% of the respondents strongly agree, 39.3% agree, 26% neutral and the rest 13.3% and 11.8% of the respondents were disagree and

strongly disagree this shows the majority of the respondents agreed with 48.8% of respondents that e-banking requires very less mental effort. This agreement is based on the responses of the respondents with mean score 3.21. This result confirms the finding of (Sathye 1999) that the customer's perception requires very less mental effort.

Table 4.6. Opportunities of Electro banking

Table 4.6.1 Opportunities of Electro banking

Opportunities of e-banking		SD	D	N	A	SA	mean
Electronic banking is more accessible and faster than other banking (Traditional banking method)	Frequency	24	19	33	138	132	3.96
	Percent	6.9%	5.5 %	9.5%	39. 9%	38. 2%	
I think that using electronic banking would enable me to complete E-banking activities more quickly and easily	Frequency	1	15	54	158	118	4.08
	Percent	0.3%	4.3 %	15.6 %	45. 7%	34. 1%	
I find electronic banking useful for my banking needs.	Frequency	3	23	53	189	78	3.91
	Percent	0.9%	6.6 %	15.3 %	54. 6%	22. 5%	
There is no time limit to access my bank account and information	Frequency	10	13	74	126	123	3.97
	Percent	2.9%	3.8 %	21.4 %	36. 4%	35. 5%	
Customers think that using electronic banking facility saves their time and money	Frequency	4	14	76	142	110	3.98
	Percent	1.2%	4%	22%	41 %	31. 8%	
I think that learning to use electronic banking would be easy.	Frequency	8	25	96	142	75	3.72

	Percent	2.3%	7.2 %	27.7 %	41 %	21. 7%	
I think that it is easy to use electronic banking to accomplish my banking tasks.	Frequency	0	26	77	174	69	3.82
	Percent	0%	7.5 %	22.3 %	50. 3%	19. 9%	
The services are adapted to disable and elder people who are lacking computer experience.	Frequency	130	67	97	35	17	3.51
	Percent	37.6 %	19. 4%	28%	10. 1%	4.9 %	
I have a high degree of trust on CBE and are satisfied with security of electronic banking service	Frequency	11	21	96	130	88	3.76
	Percent	3.2%	6.1 %	27.7 %	37. 6%	25. 4%	
I trust the use of Electronic banking	Frequency	3	12	102	126	103	3.90
	Percent	0.9%	3.5 %	29.5 %	36. 4%	29. 8%	
Using E-banking fits well with the way i like to control and manage my banking transactions.	Frequency	8	12	80	143	103	3.92
	Percent	2.3%	3.5 %	23.1 %	41. 3%	29. 8%	
I use the current banking service (e.g. phone banking and internet banking) now because these are already a part of my daily life.	Frequency	14	22	101	145	63	3.64
	Percent	4.1%	6.4 %	29.3 %	42 %	18 %	

Source: - own survey, 2019

Respondent rated that using E-banking such as internet banking, mobile banking, ATM and other services enables users to complete their banking activities more quickly and easily out of the total

respondents 34.1 of the respondents strongly agree, 45.7% agree, 15.6% neutral and the rest 4.3% and 0.3% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 79.8% of respondents find e- banking services enables users to complete their banking activities more quickly and easily and using electronic banking facility saves their time and money out of the total respondents 31.8% of the respondents strongly agree, 41% agree, 22% neutral and the rest 4% and 1.2% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 72.8% and also there is no limit to access their account and information out of the total respondents 35.5% of the respondents strongly agree, 36.4% agree, 21.4% neutral and the rest 3.8% and 2.9% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 71.9 % of respondents with a mean value of 4.08, 3.98 and 3.97 respectively. In line with the finding of Balachandher et al. (2010) these result implies, that using online banking system helps to perform banking activities within a short period of time.

Respondent either agreed or strongly agreed about the opportunity of electronic banking is more accessible and faster than other banking or traditional banking method out of the total respondents 30.3% of the respondents strongly agree, 35.8% agree, 17.1% neutral and the rest 13.3% and 3.5% of the respondents were disagree and strongly disagree this shows the majority of the respondents with 66.1% of respondents with mean value of 3.96 This indicates that, without visiting brick and mortar, customers can get bank service by using E-banking system. In this regard, as per the results of the survey, electronic banking is more accessible and convenient than travelling more distances to reach to a bank branch. By being using electronic banking users can simply check their balance and transfer funds 24 hours a day and 7 days a week without the need to go to a bank branch. In line with this finding Dawd (2009) suggests that, one of the implications of E-banking is that it should reduce the need to visit bank branches to get services.

Clients can simply check their balance, transfer funds and pay their bills on line with just a click of mouse and a touch of button they can control and manage their banking transaction out of the total respondents 29.8% of the respondents strongly agree, 41.3% agree, 23.1% neutral and the rest 3.5% and 2.3% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 71.1% of respondents and customers find that electronic banking is useful for their banking needs out of the total respondents 22.5% of the respondents strongly agree, 54.6% agree, 15.3% neutral and the rest 6.6% and 0.9% of the respondents were disagree and strongly disagree this shows the majority of the respondents agreed with 77.1% of respondents with mean

value of 3.92 and 3.91 respectively. This implies that the respondents can manage their banking transactions and find it useful for their banking needs

The question related to the respondents that I have a trust in using of e- banking out of the total respondents 0.9% of the respondents strongly agree, 3.5% agree, 29.5% neutral and the rest % and 36.4% of the respondents were disagree and strongly disagree this shows the majority of the respondents disagree with 66.2% of respondents that do not trust using e- banking and followed by the question related with I have a high degree of trust on commercial bank of Ethiopia and are satisfied with security of electronic banking service out of the total respondents 3.2% of the respondents strongly agree, 6.1% agree, 27.7% neutral and the rest 37.6% and 25.4% of the respondents were disagree and strongly disagree this shows the majority of the respondents disagree with 63% find that they don't have a high degree of trust on commercial bank of Ethiopia and are not satisfied with security of electronic banking service with the mean value of 3.90 and 3.76 It means that people have doubt and great Suspicion to use E-banking services especially because of fear of hackers from accessing their account, making fraudulent transactions and loss of their money. The result obtained from the survey also confirms the finding of Tadesse and Kidan (2005).

The other questions that related to the using of e- banking that was asked I think that it is easy to use electro banking to accomplish my baking tasks out of the total respondents 19.9% of the respondents strongly agree, 30.3% agree, 22.3% neutral and the rest 7.5% and 0% of the respondents were disagree and strongly disagree this shows the majority of the respondents with 50.2 %of respondents find electro banking is easy to accomplish their task so that CBE should expand its e-banking services so that the customer can make its transactions or can get its services wherever they are from. And for the question that was asked I think that learning to use E- banking would be easy out of the total respondents 21.7% of the respondents strongly agree, 41% agree, 27.7% neutral and the rest7.2 % and 2.3% of the respondents were disagree and strongly disagree this shows the majority of the respondents with 62.7% of respondents find it is easy to use e- banking, With mean value of 3.82 and 3.72 respectively. This thought that learning and using electronic banking is easy to use. This implies that using electronic banking is as easy as checking account balance and transfer of funds with just a click of mouse and touch of a button especially for the youngsters and those who have well educational background. From this survey it can be understood that customer thinks that it is a good way to use payment cards for making transactions through electronic devises. In line with this finding Dawd (2009) However the services that are adaptable to disable and elder people who

are lacking computer experience out of the total respondents 10.1% of the respondents strongly agree, 4.9% agree, 28% neutral and the rest 25.4% and 37.6% of the respondents were disagree and strongly disagree this shows the majority of the respondents with 57% of respondents replied that e- banking is not adaptable to disable and elder people who are lacking computer experience with the least mean score of 3.51.

CHAPTER FIVE

Summary of Findings, Conclusions and Recommendations

This chapter will present summary of the findings and conclusion in section 5.1 and 5.2, respectively. Afterwards, Limitation of the study, the possible important recommendation and suggestion for further research methods will be presented in section 5.3.5.4and 5.5, respectively.

5.1 Summary of Findings

The objective the study was to identify challenges, driving force adoption, perception and opportunities for E-banking in commercial bank of Ethiopia. Accordingly, this part of the research concludes the major findings of the study as follows:

Lack of customer trust with E-banking services provides by the banks, security risks, network problems, high cost of implementation of E-banking such as cost of ICT equipment and network, software and re-organization, lack of customer awareness with E- banking service provided, and lack of educated and efficient staff in the banking context are the challenges for E -banking in commercial bank of Ethiopia.

The study revealed lists of driving forces of e-banking adoptions desire to improve bank performance, improve customer services, improve the relationship with customers, improve organizational performance, cover wide geographical area, build organizational reputation and reduce transaction cost. Besides, competitions among banks and rapid change of customer needs and preferences have a strong influence on E-banking service in commercial bank of Ethiopia.

Electronic banking is easy to conduct banking transactions, convenient way to manage finance, help to manage finances more effectively and efficiently, compatible with a life style, gives a greater control over finance, is useful to manage financial resource, fits with working style, is confident over security aspect, is confident over security aspect, is faster way of getting banking service and requires very less mental effort.

Finally, e- banking is faster and more accessible than visiting a bank or using traditional banking method-banking is more accessible than other banking method, thinking that using electronic banking would enable to complete E-banking activities more quickly and easily, finding Electronic banking useful for banking needs., no time limit to access their bank account and information, Customers Think that using electronic banking facility saves their time and money, thinking that learning to use electronic banking would be easy. Think that it is easy to use electronic banking to accomplish banking tasks. The services are adapted to disable and elder people who are lacking computer experience., have a high degree of trust on Commercial bank of Ethiopia and are satisfied with security of electronic banking service, using E-banking fits well with the way they like to control and manage their banking transactions and using the current banking service (e.g. .phone banking, and internet banking) now because these are already a part of their daily life. Are among the major existing opportunities for e- banking in commercial bank of Ethiopia.

5.2 Conclusion

Based on the findings of the study the following are conclusions made:

- The study discovered that people who want to get E-banking service lacks the required information that is necessary to use electronic banking services and are not adapted to disable and elder people who are lacking computer experience.. In this regard, the bank officials who are expected to help customers focus on their routine jobs and don't give much time to customers. Moreover, bank's websites are not providing essential information to customers regarding electronic banking. In general there is information gap between the service users and service providers of electronic banking.

- Security and privacy are the most important issues in electronic banking business. The findings of the study also reveal that customers are very much sensitive and highly concerned about the security of their account and privacy of their private information and customers do not trust the technology that is being used for conducting electronic banking business. However, they don't have enough knowledge about security features and user privacy policies. . For this reason, they do not have full confidence and trust on the electronic banking services provided by commercial bank of Ethiopia mainly for security related issues.

- The study revealed that Electronic banking is easy to conduct banking transactions, convenient way to manage finance, help to manage finances more effectively and efficiently, compatible with their life style, gives a greater control over their finance, is useful to manage financial resource, fits with their working style, is confident over security aspect, is confident over security aspect, is faster way of getting banking service and requires very less mental effort.
- The study also revealed that the infrastructure required for successful implementation of electronic banking is under developed. In this regard, especially the telecommunication infrastructure found to be poor to perform electronic based transactions and this becomes a serious challenge for the development of E-banking in CBE. Regarding this, the study indicated that there is a very slow internet connection and low distribution of internet network in the country regarding Commercial Bank of Ethiopia.

- Apart from possessing the latest technology, having the technology know-how is very important in e-banking industry. In this regard, the study revealed that there is shortage of experienced and well trained IT professionals who have the capacity and the skill to resolve problems that may be encountered while using electronic banking services.

- The study revealed that the driving forces that initiate commercial bank of Ethiopia for adoption and development of E-banking technology are desire to improve organization performance, desire to improve the relationship with customers, Existence of high demand, desire to cover wide geographical area, desire to build organizational reputation and desire to reduce transaction cost. In addition, increasing competition among banks to increase or retain their customer base is driving force of CBE to adopt and develop E-banking technologies.

- In general one of the basic opportunities of E-banking, in which it enables customers to perform banking activities in a simple way and it is time saving and money reduction. These benefits which are identified in the study were considered as a very great potential for commercial bank of Ethiopia. To improve their public image.

5.3 Recommendations

Based on the above mentioned conclusions, the researcher recommends the following points:

- The findings reveal that security & privacy are the most important issues for customers to use electronic banking. In this regard, commercial bank Ethiopia of should provide security measures to its customers that demonstrates full authentication, privacy, completion of transaction from start to end and its confirmation. Moreover, commercial bank of Ethiopia should obtain latest computer programs that enable the bank to have a powerful technique for security related issues.

- For the successful implementation of E-banking system telecommunication infrastructure, is a major prerequisite. Therefore, the government should support the electronic banking sector by investing on telecommunication infrastructure development. In this regard, Ethio-telecom needs to provide these banks to have a better and quality network having a higher bandwidth in addition. Commercial bank of Ethiopia should create or develop its own telecommunication infrastructure that provides the bank to have a better and quality network By doing so, the existing quality of internet connection should also be improved until such time that successful implementation is achieved.

- The bank management should improve e- banking quality service so as to satisfy customers' needs. The bank needs to pay attention to e-banking customer complaints in order to satisfy the customer expectation

- Commercial bank of Ethiopia should promote and create deep awareness to community concerning the E-banking products they offer and the benefits associated with using E-banking services through advertising their products and services on the internet, different mass media including their websites. Since Websites of banks play an important role to attract customers especially if the information provided is understandable and brief. As well as through organizing public exhibition and talk shows. Besides, the bank should attract the community to use the technology by diverse incentive campaigns. This way, customers 'interest would be aroused to use electronic banking which can result in considerable amount of profits at low transaction costs.

- Commercial bank of Ethiopia should take some security measures regarding policy for protection of customer's account and personal records in order to strengthen the trust of customers on the technology, In addition, commercial bank of Ethiopia should ensure to its customers that it is delivering accurate transactions within the required time so that customers can rely on it; which in turn motivate them to make electronic based transactions without any hesitation. In general, commercial bank of Ethiopia need to provide more sophisticated security measures to win the confidence of their customers

- Commercial bank of Ethiopia should pay special attention to deliver service to customers by using E- banking system, which can easily be accessible. and need to move away from traditional bases of retail bank to a new technology based form by focusing on cost reduction, customer retention, awareness, credibility, security, ease of use, and wider scope of products and services.

- Without technology it is impossible for Commercial bank of Ethiopia to compete and provide quality services. It is also very important that the existing IT professional staffs need to be have educated and sufficient skill and needed to update their skill. It is also recommendable for commercial bank of Ethiopia to hire well trained and experienced IT professionals to handle the business competently and who are capable of solving the problems with adequate knowledge. Furthermore, since the staffs of the bank needed to provide all the information to its customers, it should provide all the materials to customers that determine how to use electronic banking.

5.4 Suggestions for Further Research

This study described the challenge and opportunities of commercial banks of Ethiopia from the customer perspective. Nevertheless, it did not consider the employee perspective and other stakeholder like Ethio-Telecom and other .Therefore, the researcher would like to recommend further research be made on the area especially to capture the employees' and other above stakeholders perspectives.

References

Ackah David, Makafui R. Agboyi (2014), Adoption of electronic banking in Ghana banking*system*, a case study of Trust Bank (Ghana) Limited, thesis, Atlantic International University AIU, Hawaii, Honolulu, U.S.A

Balachandher K., G., Santha V., Norhazlin I., &Rajendra P., (2001).Electronic Banking in Malaysia: A note on Evolution of Services and Consumer Reactions. Banking.Internet Research, 10, 1:7–18.

(Bank Away (2001). Net Banking Benefits! Sheer Acceleration, Electronic Banking: The Ultimate Guide to Business and Technology of Online Banking.

Barra, R. (1990) "Interactive Innovation in Financial and Business Services: the vanguard of the service revolution", *Research Policy* Vol. 19,PP 215- 37, cited in Bradley L. and Stewart K(2003) "A Delphi Study of Internet Banking" , *Marketing and Intelligence Planning* 25/5(2003)272 -281, Emerald Group Publishing Limited.

Basel Committee on Banking Supervision (2001).Risk management principles for electronic banking.Bank for International Settlements.

Booz-Allen and Hamilton (1999). Corporate internet banking: A global study of potential Effects', New York, NY

Bradley L. and Stewart K.(2003) " A Delphi Study of Internet Banking", *Marketing and Intelligence Planning,* 25/5(2003)272 -281, Emerald Group Publishing Limited.

Charles, H.(ND). Banking Reform in Ethiopia.Addis Ababa. Mimeo

Chethan V P, B.E Information Science and Engineering, Ramaiah Institute of Technology (2016).

Claessens ,S., Glaessner, T. and Klingebred ,D. (2002) "Electronic Finance A New Approach to Financial Sector Development**?"** world bank discussion paper WDP 431, the World Bank, Washington, D.C.

Clemes,M., Gan, C., Limsombunchai,V. and Weng, A. (2006)" A logit analysis of electronic banking in New Zealand" International Journal of Bank Marketing. 24/ 6 (2006) 360-383,Emerald Group Publishing Limited.

Cochran, W. G., 1963. Sampling Techniques. 2nd ed. New York, Wiley.

Commercial Bank of Ethiopia. (http://www.combanketh.et, Annual quarter meeting report of 2018 and E-payment procedure, manuals and broacher**)** and Portal public website

Daniel, (1999).“Provision of electronic banking in the UK and Republic of Ireland”.
International Journal of Bank marketing. 17(2), pp. 72-82

Dawit, T. (2015).Opportunities and challenges of electro banking service rendering the case of commercial bank of Ethiopia. Adiss ababa, Ethiopia

Dawd, I. (2004). Introduction to payment card. Dashen Bank. Addis Ababa. Mimeo

Dewan, R., and A. Seidmann (2001). “Communications of the ACM,” Current issues in
E-banking (Special section), 44(6): 31-57.

Devamohan A. (2002). E-Banking Problems and Prospects. Mimeo

FSA (2010) the financial service authority (FSA) http://www.fsa.gov.uk. E-banking risks, retrieved on may, 2010

Gardachew, W. (2010). “Electronic -banking in Ethiopia: practices, opportunities and Challenges”. Journal of internet Banking and commerce, 85 15(2):2-9

Ghazi, A & Khalid, A 2012, “E-business Enablers and Barriers: Empirical study of SME
in Jordanian communication sector”, Global journal of Business Research, 6(3),
pp.1-15.

Habibur, Mohammed and Sayeed (2012).problems and prospects of e- banking in Bangladesh:- published ‘’ international journal of scientific and research publicationnities(IJSRP),VOLLUME 2,ISSUED 7,JULY 2012 EDITION

HareguaTadesse (2017). Challenges and opportunities of card- banking practice in commercial bank of Ethiopia,

Harrison, (2012). The Banking Industry in the Emerging Market Economies: Competition, Consolidation and Systemic Stability: An Overview. No. 4, pp: 43-44.

Husni, A. and Noor, A. (2011).The Impact of E-Banking on Bank Profitability: Evidence from

Isaac Awuondo (2005). The Future of E-banking in Africa

Jayawardhena& Foley, 2000.Jayawardhena, C. & Foley, P. (2000). Changes in the banking sector – the case of internet banking in the UK. Internet Research: Electronic Networking Applications and Policy, Vol. 10 No. 1, pp. 19-30.

Jordan. Journal of Middle Eastern Finance and Economics, ISSN: 1450-2889 Issue 13, Euro Journals Publishing, Inc.34.(Ibid, 2011).

Joseph, N, 2005, "An empirical evaluation of US bank customer Perceptions of the impact of technology on service delivery in the banking Sector", International Journal of Retail & Distribution Management, 31(4):190-202.

Mahdi Salehi(2004). E-Banking in Emerging Economy: Empirical Evidence of Iran (Corresponding author) Accounting and Management Department, Zanjan University, Iran

Malak, J. (2007). Readiness of the Palestinian banking sector in adopting the electronic banking system: exploratory study, MA thesis, The Islamic University of Palestine. Nigerian banking industry.International Journal of Business and Management, Vol.2No.3

Mas, I. (2008) "Realizing the Potential of Branchless Banking: Challenges Ahead " CGAP publications No. 50.

Megersa, N. (2010). The Role and Performance of International Banking In FinancingInternationalTrade.Addis Ababa. Mimeo

Mols, Niels.(1998). The Behavioral Consequences of PC banking, International Journal of Bank Marketing, pp. 195–201.

Morufu, O. and Taibat, A. (2012).Bankers perceptions of electronic banking in Nigeria: A review of post consolidation experience. Research Journal of Finance and Accounting, 3(2): 5-6.

Muvva, B. and Sisay, T.(2011). E-Business: Application of software and technology in selected Ethiopian Banks: Issues and Challenges. IJCSI International Journal of Computer Science Issues, Vol. 8, Issue 6, No, pp.2-9.

(OECD, 2004).Organization for economic cooperation and development (OECD, 2004). Electronic finance: Economics and Institutional Factors, occasional paper No 2, financial affairs division,OECD, Paris.

Okoye, Victor. 2013"E–Banking in Nigerian Banking Industry: Challenges and Prospects" International Journal for Management Science and Technology (IJMST) Vol. 1; Issue 6 ISSN:2320-8848(O.)/2321-0362(P.)

Salehi, M. Alipouri, M (2010) "E-banking in Emerging Economy: Empirical Evidence of Iran", International Journal of Economics and Finance, Vol 2, No. 1 (2010).

Sathye, M. (1999). Adoption of Internet banking by Australian consumers: an empirical investigation. International Journal of Bank Marketing, Vol. 17 No. 7, pp. 324-34.

Schmith, S. (2008) "Credit Card Market: Economic Benefits and Industry Trends", Manufacturing and Services Competitiveness report, International Trade Administration, Department of Commerce, USA.

Segun, A. (2011) Mobile Banking to Transform Nigeria's Economy, says GT Bank Boss THISDAYLIVE [online], Available at: http://www.thisdaylive.com/articles/mobilEbanking-to-transform-nigerias-economy-says-gt-bank-boss/105126/ (retrieved: July 10, 2015).

Sulaiman ,Lim and Wee (2005). Prospects and challenges of e- banking in Malaysia

Taddesse, W &Kidan, T (2005). E-payment: Challenges & Opportunities in Ethiopia. United Nations. Economic Commission for Africa

Taro Yamane (1967). ―Analysis of sample size in consumer surveys‖, 2nd Ed., New York

Vassilliou, C. (2004). Electronic Payment Systems and Marketing. Mimeo

.Worku, G. (2010).Electronic Banking in Ethiopia – Practices, Opportunities and Challenges. Journal of Internet Banking & Commerce, Vol. 12 No.2, pp. 4-7.

Yang, Y, 1997."The security of electronic banking", a research paper presented at the national formation systems security conference U.S.A.

Yakhelfe, A. (2001)" Does the internet compete with or complement bricks and mortar bank branches?" International Journal of retail and Distribution Management 29/6 (2001)271-281, cited on Bradley L. and Stewart K.(2003) " A Delphi Study of Internet Banking", *Marketing and Intelligence Planning,* 25/5(2003)272 -281, Emerald Group Publishing Limited.

Zheng, et al., 2009.Introduction to E-commerce. Part 5 .Available from: https://springerlink3.metapress.com/content/qx1v072w6452141k/resoureecured/?target=fulltext.pdf&sid=iibpalqrlteepyrsxijmzwjo&sh =www.springerlink.com.Retrieved on July 10, 2015

APPENDICES

APPENDIX

St. Mary's University

School of Graduate Studies

Questionnaire to be filled by Customers of CBE

Dear Respondent,

I am Yididya Shewaye a student in St. Mary's University. I am undertaking a research on the topic "Challenges and Opportunities of Electronic Banking in the case of commercial bank of Ethiopia" for the partial fulfillment of the requirements of the degree of Master of Science in Marketing Management. I would like to express my sincere appreciation for your time, honest and prompt responses. The aim of this questionnaire is to identify the challenges and opportunities of electronic banking in Ethiopia. The information that you offer me with this questionnaire will be used only for academic purpose. Hence, this research is believed to be evaluated in terms of its contribution towards investigating the challenges and opportunities of e-banking in with its contribution to improvements in commercial bank of Ethiopia.

I would like to assure youthat the information you provide will be kept confidential.

General Instructions

- There is no need of writing your name.
- In all cases, where answers to options are available, please tick (□) in the appropriate box.
- For questions that demand your opinion, please try to honestly describe your responses on

The space provided.

Thank you for your participation

Best Regards,

Part I: Demographic Factors:

1. Age Group

□<25 □26-35 □ 36-45 □ 46-55 □>55

2. Gender

□Male □Female

3. Occupational status

□ Student □ Employed □ Unemployed □ Other

4. Educational level

□ Diploma/TVET □ BA/BSc degree □Master's Degree □PhD

Part II: Questions about general information on Electro banking

5. When did you start using the E-banking facility?

□< one year □1- 5 years □6- 10 years □ 11- 15 years □> 15 years

6. What type of E-banking Products/services do you have or use? You can choose more than once!

□ ATM □ Debit Card

□POS Machine □ Credit Card

□ Mobile Banking □ Internet Banking

□ SMS Banking□ others……

7. Which of e- banking facility do you prefer? Why

……

……..

8. What service options are available to you once you have accessed e-banking? You Can choose more than once!

□ Fund transfer □ Bill presentment and payment

□New account set-up □ Cash withdrawal

□ Insurance premium payment □ Purchase of goods and services

□ Credit application □ Utility payment

□ Balance inquiry □ others/ mention it…….

9. Are you comfortable with the use of the E-banking facility?

A. Yes B. No

10. How effective and reliable is the E- banking facility you use often?

□Very effective □ Effective □ satisfactorily effective □ not effective

11. On a scale of 1-5 what is your level of satisfaction of E-banking facility you use?

□Excellent □Very good □ Good □Average□Poor

12. Are there any risks involved because of using electronic channels for delivering banking services to the customer?

A. Yes B. No

13. If your answer for the above question is yes, which of the following do you think are corresponding risks?

□ Transaction or operation risk □ Reputation risk

□ Security risk □ Strategic risk

□ Compliance or legal risk

Others_____

14. What measures you are taking to minimize this risk?

_____

_____

Challenges of E-banking

Below are lists of questioners relating to the Challenges of E- banking in commercial bank of Ethiopia? Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from ''Strongly Disagree‟ to ''Strongly Agree‟.

Key 1= Strongly Disagree 2= Disagree 3= Neutral 4=Agree 5= strongly agree

NO	Challenges of e-banking	1	2	3	4	5
1	Internet security is one of the problems in electronic banking service.					
2	Electronic banking services are less trustworthy for the fact that they are technology dependent.					
3	lack of educated and efficient staff in e-banking context					
4	Speed of service delivery					
5	Electronic banking services violate the privacy of the users like me.					
6	It is hard to use electronic banking service because of very weak internet infrastructure.					
7	Because electronic banking services are not simple to operate, it is not comfortable to use them.					
8	I feel that the price of electronic banking services is expensive.					
9	All electronic banking services are internet-based; and the cost of internet increases the cost of the overall service.					
10.	Electronic banking services may not perform well and may process payments incorrectly because of network problems.					
11.	When and if transaction occur, I will get compensation from banks					
12.	I am worried about using electronic mobile banking because other people may be able to access my account					
13.	It would take me lots of time to learn how to use electronic banking services.					

Driving forces of e-banking

Below are lists of questioners relating to the driving forces of E-banking adoption in commercial bank of Ethiopia? Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from ''Strongly Disagree‟ to ''Strongly Agree‟.

Key 1= Strongly Disagree 2= Disagree 3= Neutral 4=Agree 5= strongly agree

S.NO	Driving forces	SD	D	N	SA	A
1	Existence of high completion in the banking industry					
2	Existence of high demand					
3	Desire to improve organizational performance					
4	Desire to improve the relationship with customers					
5	Desire to reduce transaction cost					
6	Desire to cover wide geographical area					
7	Desire to build organizational reputation					
8	Desire to satisfy customer					

Others factor if any?

_____

_____.

Customers' perception of E-banking

Below are lists of questioners relating to the customers perception of E-banking in the case of commercial bank of Ethiopia. Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from ''strongly disagree" to ''strongly agree".

Key 1= Strongly Disagree 2= Disagree 3= Neutral 4=Agree 5= strongly agree

No	**Items about perception of e-banking**	**1**	**2**	**3**	**4**	**5**
1.	Electronic banking is easy to conduct banking transactions					
2.	Electronic banking is convenient way to manage finance					
3.	Electronic banking will help to manage finances more effectively and efficiently					
4.	Electronic banking is compatible with my life style					
5.	Electronic banking gives me greater control over my finance					
6.	Electronic banking is useful to manage financial resource					
7.	Electronic banking fits with my working style					
8.	Electronic banking is confident over security aspect					
9.	Electronic banking is faster way of getting banking service					
10.	Electronic banking requires very less mental effort					

6. Opportunities of E-banking

Below are lists of questioners relating to the opportunities of E-banking in the case of commercial bank of Ethiopia? Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from ''strongly disagree" to ''strongly agree".

Key 1= Strongly Disagree 2= Disagree 3= Neutral 4=Agree 5= strongly agree

No	**Opportunities of e-banking**	*1*	*2*	*3*	*4*	*5*
1	Electronic banking is more accessible and faster than other banking (Traditional banking method)					
2	I think that using electronic banking would enable me to complete E-banking activities more quickly and easily					
3	I find electronic banking useful for my banking needs.					
4	There is no time limit to access my bank account and information					
5	Customers think that using electronic banking facility saves their time and money					
6	I think that learning to use electronic banking would be easy.					
7	I think that it is easy to use electronic banking to accomplish my banking tasks.					
8	The services are adapted to disable and elder people who are lacking computer experience.					
9	I have a high degree of trust on Commercial bank of Ethiopia and are satisfied with security of electronic banking service					
10	I trust the use of electronic banking					
11	Using E-banking fits well with the way I like to control and manage my banking transactions.					
12	I use the current banking service (e.g. phone banking and internet banking) now because these are already a part of my daily life.					

19. Any Suggestion that you would like to give?

……

……

……..

THANK YOU.

ENDORSEMENT

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

_____ _____

Advisor Signature & Date