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**COLLEGE OF BUSINESS AND ECONOMICS**  
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**Prospect and trend of progress of E banking project in Commercial Bank of Ethiopia**

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## Statement of Declaration

The work provided in this project work, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

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## **Endorsement**

Here with I, state that Amakelew Getinet has been carried out this project work on the topic entitled “**prospect and trend of progress of E banking project in Commercial Bank of Ethiopia**” under my supervision. This project work has been submitted to Addis Ababa university school of commerce, School of Graduate studies for the examination with my approval as a University Advisor.

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## **ABSTRACT**

*E banking is a modern and recent service delivery channels in the Ethiopian banking industry and it is counted nearly a decade and half years after the first adoption of E banking technologies in Ethiopia banking industries after introducing the first Automated Teller Machine by the Commercial Bank of Ethiopia .The objective of this project work is to address the current status and progress of E banking technologies in CBE in terms of total active user of the technology , progress in transaction number performed via the technology and also address the prospect of E banking technology in CBE , the challenges and opportunities to expand the technology. To meet this objective a proportional stratified sampling design was used. Data was collected both from secondary and primary data source. The primary data source was collected, from the employees of CBE who are close to the case in their assignment of work and worked only in the four Addis Ababa districts of the bank and Addis Ababa city administration zone, via questionnaires that were both objective and open ended in nature. The secondary data was obtained from the bank's Management Information System department. The secondary data was mainly used to assess and see the status of E banking products across the aggressive expansion of the technology whereas the primary data was used to address the prospect of E banking technologies and challenges and opportunities in expanding the technology from the bank's perspective .The study used descriptive statistics and findings were described by using appropriate graphs, tables. And the findings of the study showed that the number of active, in status, user of the technology, number of transaction performed via the technology, number of newly recruited E banking customer from the newly opened account showed increment for the past five years yearly. However the percentage of increment in the number of transaction performed via the E banking technology were not proportional meaning the yearly transaction made via the technology is by far small in number this indicates even though the bank is aiming in creating cash less society still customers are cash holding one this might be due to lack of awareness how to use the technology . The primary data analysis of this project work high light that even though the E banking system of the bank presents conveniently for use there were many discouraging factors in using the technology consistently for instance network and power interruption and poor treatment of customer request and compliant handling.*

**Key words:** *E banking, customer recruitment, prospects*

## Table of contents

<b>Content</b>	<b>pages</b>
acknowledgment .....	i
<i>abstract</i> .....	ii
List of figures .....	v
List of tables .....	vi
List of acronyms.....	vii
Chapter one.....	1
1 Introduction .....	1
1.1 Background of the organization.....	2
1.2 Background of the study.....	2
1.3 Statement of the problem .....	6
1.4 Research Questions .....	8
1.5 Objective of the study .....	8
1.6 Scope of the work .....	8
1.7 Limitation of the study.....	9
1.8 Significance of the study .....	9
1.9 Organization of the project work .....	10
Chapter two.....	11
2 review of related literatures .....	11
2.1 Definition of E banking.....	11
2.2 Classification of E banking technologies .....	12
2.3 Benefits of E banking technologies .....	13
2.3.1 Benefits of E banking to the banking industry .....	14
2.3.2 Benefit to the customers perspective .....	14
2.4 Over view of E banking system in commercial Bank of Ethiopia .....	15
2.4.1 Challenge and opportunity of E banking technology in CBE .....	15
2.4.2 Prospect of E banking technology in CBE.....	16
2.5 Gap observed in the literatures.....	17
Chapter three .....	18
3 Research Methodology .....	18
3.1 Study area .....	18
3.2 Research design and approach.....	18

<b>3.3</b>	<b>Research Population and Sampling</b> .....	18
3.3.1	Target population .....	19
3.3.2	Sampling Frame .....	19
3.3.3	Sampling technique.....	19
3.3.4	Sample size determination .....	20
<b>3.4</b>	<b>Source of data collection</b> .....	20
<b>3.5</b>	<b>Data collection instrument</b> .....	21
<b>3.6</b>	<b>Validity and reliability</b> .....	22
<b>3.7</b>	<b>Method of data analysis</b> .....	22
<b>3.8</b>	<b>Ethical consideration</b> .....	23
<b>Chapter four</b> .....		24
<b>4</b>	<b>data presentation , Analysis and interpretation</b> .....	24
4.1	Analysis of secondary data .....	24
4.1.1	Trends of ATM progress in CBE .....	24
4.1.2	Analysis of mobile banking trend .....	26
4.1.3	Analysis of internet banking .....	28
4.2	Analysis of primary data .....	30
4.2.1	Analysis of new E banking customer recruitment method .....	31
4.2.2	Analysis of E banking customer compliant handling method.....	32
4.2.3	Analysis of system convenience and reliability .....	34
4.3	Challenge and OPPORTUNITY FOR the expansion of E banking .....	36
4.3.1	Opportunities for the expansion of E banking technologies .....	36
4.3.2	Challenges that hinder the expansion of E banking .....	37
<b>Chapter five</b> .....		38
<b>5</b>	<b>summary of findings, conclusions and recommendations</b> .....	38
5.1	Summary of findings.....	38
5.1.1	findings on E banking current status of CBE.....	38
5.1.2	Findings of challenges and opportunity for the expansion of E banking .....	39
5.2	Conclusion.....	40
5.3	Recommendation.....	41
<b>References</b> .....		43
<b>Appendix</b> .....		45

## LIST OF FIGURES

Fig. 2.1E banking conceptual frame.....	12
FIG. 3.1 Research Methodology Design.....	21
Fig.4.1ATM user versus total customer and transaction number.....	23
Fig.4.2progress of new ATM card user .....	24
Fig. 4.3Trend of mobile banking progress.....	25
Fig. 4.4 Mobile banking users versus mobile banking transaction.....	26
Fig. 4.5 Current status of E banking customers in CBE.....	28
Fig. 4.6 Trend E banking user progress.....	29

## LIST OF TABLES

Table 4.1 Internet banking user and transaction progress.....	27
Table 4.2 E banking user recruitment trend.....	30
Table 4.3 Customer request and compliant handling.....	32
Table 4.4 System convenience and reliability.....	34
Table 4.5 Existing opportunity of E banking .....	35
Table 4.6 Challenges of E banking .....	36

## LIST OF ACRONYMS

<b>ATM</b>	Automated Teller Machine
<b>CBE</b>	Commercial Bank of Ethiopia
<b>EFT</b>	Electronic Fund Transfer
<b>E-banking</b>	Electronic Banking
<b>E-payment</b>	Electronic Payment
<b>ICT</b>	Information and Communication Technology
<b>IT</b>	Information Technology
<b>MIS</b>	Management of Information System
<b>NBE</b>	National Bank of Ethiopia
<b>PC</b>	Personal Computer
<b>PIN</b>	Personal Identification Number
<b>POS</b>	Point of Sale

# CHAPTER ONE

## 1 INTRODUCTION

Now a day the rapid growth of Information Communication Technology (ICT) enables banking industries to renders modern service to customers. In Ethiopia there are a number of private owned banks and a single state owned bank excluding development bank of Ethiopia and it is not strange thing to hear about E banking in their promotion since every banks start at least one E banking products like ATM, mobile banking, Internet banking etc and by its nature the service rendered by any bank, whether it is private owned or state owned, is identical what make differ is how they render the service, the quality of service delivered, customer satisfaction ,the way the banks treat their customer request and complains, early and late adoption of new banking technology etc .

The unique nature of banking service and the versatility of customer demand and preference makes the competition among banks in the industry extremely tough and to become competent enough banks are adopting different banking technologies that enables their customers to access their bank account everywhere and every time in their convenience. However the Ethiopian banking are very much behind compared to the rest of the world and cash is still the medium of exchange (Gardachew 2010). These customers that prefer cash for the medium of exchange might resist using any other technology on their account. And any kind of complain rose by E banking user like system inconvenience, poor customer complaint and request handling, registering customers to use E banking technologies without the proper awareness of how to use the technology, unadjusted E banking transaction error for extended period of time etc aggravates the resistance level of new customers to the technology at the same time discourage users not to use it consistently .

E banking have an impact on the profitability of Commercial bank of Ethiopia (Dr. Uvaneswaran .S.M, Ms. Eldana Kassa, Mr. Seid Muhammed Hamid 2017).As a result the bank can enhance the profitability from the technology by frequently updating the technology and reducing complains and making the system conveniently presented and by far of these by making customer aware of the technology how to use it .

## **1.1 BACKGROUND OF THE ORGANIZATION**

The commercial Bank of Ethiopia (CBE) was legally established as a Share Company in 1963 to take over the commercial banking activities of the State Bank of Ethiopia, which was founded in 1942 with twin objectives of performing the duties of both commercial and central banking.

During the 1974 revolution, CBE got its strength by merging with the privately owned Addis Ababa Bank. Since then, it has been playing a significant role in the development endeavor of the country for instance it is serving as a finance source of the country's mega projects like hydro electric projects condominium housing projects and those projects that are engaged on manufacturing industry etc . The CBE, which is striving to become a world-class bank, is rendering state-of-the-art and reliable services to its millions of customers, both at home and abroad. The business strategies of the Bank focus on the interest of the public it serves.

The state-owned CBE still dominates the market in terms of assets, deposits, capital, and customer base and branch network, despite the growing competition from private banks over the last 25 years. CBE has more than 33,365 employees, more than 1,235 branches, and more than 1,576 ATM throughout the country (Muday Neway Vol.7 No1, Feb. 2018). Currently CBE is also expanding its branches aggressively throughout the country and all the existed branches and the newly opened branches are all networked (CBE 2018) this creates a good opportunity to expand E banking technology. The bank , with the assumption of opening 500 new branches during the strategic period ,deploying of 400ATMS and 2000 POSES per year, and opening of two million accounts ,has planned to have additional 2000 ATMS,10,000 POSES five million mobile banking users and 12.4 million card users at the end of the strategic year (the bank's corporate strategy of 2015/16-2019/20)

This makes it one of the most reliable and strong commercial banks in the country and the region.

## **1.2 BACKGROUND OF THE STUDY**

Electronic banking, known as Electronic Funds Transfer (EFT), it is basically the use of electronic methods or means to transfer money electronically directly from one account to another account, rather than cash or cheque (Muhammad Rahimuddin 2010). In this paper E banking is to mean any electronic system that enables banking transaction like fund transfer from one account to another ,making payment for utilities ,cashing out ,foreign exchange etc .

Some of the tools that enables customers to perform transaction electronically are Automated Teller Machine (ATM) , internet banking ,mobile banking ,Point of Sale (POS), mobile money (agent banking).

The availability of these E banking tools with in the bank enables it to become competent enough in the industry. It is clearly mentioned in many E banking literatures that the adoption of E banking technology enables the bank competent enough in the industry, for instance the study by Bichanga (2014) said The E-banking has big influence on the growth of customer base for the banking institutions in Kenya, through enhancing banking services accessibility to a larger population in the country. And he recommended that the bank should embrace E-banking as a key competitive advantage.

Even though CBE is the pioneer bank in introducing E banking technology in Ethiopia it was behind Dashen bank to lead the E payment technology (Ayana 2014).This days in Ethiopian banking industries the use of E banking technology does not necessarily mean that the bank is competent enough in the industry since the national bank proclamation forced banks to start the use of the technology. But what makes the difference is the effort made to make the technology convenience for use, made customers to use the technology consistently, reduce customer complaint on the system and increase the level of customer satisfaction on using the technology, etc. Literatures showed that the majority of CBE customers were satisfied by the E banking technologies however it also stated that CBE lack fast and efficient compliant handling system (Dr. Uvaneswaran .S.M, Ms. Eldana Kassa, Mr. Seid Muhammed Hamid 2017). This study also ranked service quality as the major problem that customers faced in using of the banks E banking technology for instance network failure, power failure, system failure and machine break down, cash shortage in ATMs and unavailability of internet was among the major challenges that customers faced. The following are the major E banking products of CBE.

ATM was introduced in Ethiopia for the first time by CBE for local users of Addis Ababa in 2001 (Garedachew 2010). It 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 or cashier, transfer money between their bank accounts for 24 hours of a day. In Ethiopian context it is

operated 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 pass code, often referred to as a **PIN (Personal Identification Number)** of four digits upon successful entry of the PIN, the customer may perform a transaction ( Google definition and re written as the Ethiopian case). CBE is giving the service for its account holder customers for free for the first time and charges 50 birr for request for the second time due to different reasons like lost of ATM cards, card scratched etc . Customers can also request for new PIN if they lost the previous one.

**Mobile banking:-** is a service that enables customers to conduct some banking services such as account inquiry and funds transfer (Ayana 2014) It is also defined as 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 (national bank directives FIS /01/2012). It can render service for 24 hours a day everywhere as long as network is available and in a similar fashion with ATM service it also uses PIN for user verification and customers can also request new PIN if they forget the original one in the branch where their account is found.

**Internet banking:-** shall mean the internet as a remote delivery channel for banking service through a secure website operated by the bank using access devices, including personal computers, lap top and other intelligent devices. It can be corporate or personal internet banking which is defined as follows:-

**Personal Internet Banking:** - shall mean an internet banking channel that provides CBE individual customer with online banking services. Those are fund transfer, remittances, online payment, account inquiry and other service of personal Internet Banking.

**Corporate Internet Banking :-** shall mean an internet banking channel that provides organization with online banking services; those are fund transfer, bulk payment, remittances, online payment, account inquiry and other service of Corporate Internet Banking (CBE E payment procedure 2016). It is also defined as an electronic home banking system using web technology in which Bank customers are able to conduct their business transactions with the bank through personal computer (Ayana 2014).

**Point of Sale Transfer (POS):-** is electronic device used for authorizing and processing bankcard transactions at point-of-sale (CBE E payment procedure 2016).It is also defined and

describe as a system that 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. From the definition given one can easily understand that POS an instrument between ATM card holder and the merchant so as to facilitate payment system electronically by debiting the card holder account and automatically credit the merchant account (Malak 2007).

**Mobile money (agent banking):-** It is the lately adopted technology in CBE. However in Ethiopia the technology is adopted by some other private banks and other financial institutes some few years ago for instance Lion International Bank has the technology named “Hello cash” and Addis Bider and kuteba also adopted the technology named as “M birr” currently CBE is also adopted the technology and enter in to the market and named it CBE BIRR.

Mobile money (agent banking) is defined as the conduct of banking business on behalf of a financial institution through an agent using various service delivery channels as permitted under these directives, where as an agent is a person engaged in a commercial/business activity and has been contracted by a financial institution to provide the services of the financial institution on its behalf in a manner specified in these directives (national bank directives FIS /01/2012). The system enables users of the technology to perform money transfer, cash out service, buy goods and pay bill electronically, etc. The national bank directives FIS /01/2012 agents has to be licensed to be engaged in the agent service , at the mean time Mobile and agent banking service shall be carried out only within the geographical boundary of Ethiopia and with only Ethiopian Birr. Even though CBE is lately adopted the technology relative to other banks and financial institutes currently it is working aggressively to expand the technology with in the country and are recruiting customers via all its branches and promote the technology through the banks media and also public media.

### 1.3 STATEMENT OF THE PROBLEM

Based on the report speech done in the inauguration ceremony of the 75<sup>th</sup> year CBE had more than thirteen million customers and more than 1,265 branches thought the country this indicates on average a single branch has more than ten thousand customers. Serving this much number of customer with only the traditional way that is face to face operation may be cumbersome and creates customer dissatisfaction , as a result implementing mechanisms for customers that enables them to access their account without visiting their branch is very essential. E banking technology can be a remedial solution; E banking has impact in improving customer satisfaction, impact in reducing waiting time for customers to get bank service and impact in improving customers to control their account movements (Worku G, Tilahun A, Tafa MA 2016). E banking enables customers to access their account twenty four hours a day and seven days a week via the different E banking products for instance ATM to with draw cash note for their immediate use, mobile or internet banking to check their available balance this and such kind of benefit enhance the motivation of customers for the use of E banking technology, it also helps the bank to be competent enough in the industry, it helps the bank to render efficient and effective services to the customer... the major driving forces that initiate banks to deliver banking services to the customer using electronic channels are existence of high preferences , desire to improve organizational performance, desire to improve the relationship with customers, desire to reduce transaction cost, desire to cover wide geographical area, desire to build organizational reputation, desire to satisfy customers and to keep the international banking standard among others(Mattewos 2016) . In addition the major instrument to conduct the technology are personal computer and mobiles but in Ethiopia with the increase of the population and expansion of telecom network the rate of mobile users are increasing at alarming rate this brought optimist thought in the prospect of the technology and CBE as being the state owned bank and huge coverage in the country enables it to be the major beneficiary of this expansion. However the country low level ICT infrastructure, security risk and lack of trust on the use of technological adoption are other major barriers for the system. The level of security risk associated with E-banking product or service, such as ATM, internet banking, mobile banking and others, pose different challenges to different banks. Improvements are required to ensure client confidence (Ayana 2014).

Commercial Bank of Ethiopia (CBE) is currently working aggressively on E banking expansion and E banking technology is among the strategic issues. (CBE corporate strategy 2015/16-2019/20) the bank is using different strategies of expanding the technology for instance campaign, discount for payments made via the E banking technology, branches individual target for E banking user recruitment to be achieved by the end of the business year and considered as one criteria for performance measurement of the branch So branches are recruiting E banking customers unreservedly. But being an E banking customer does not necessarily mean that E banking sustainable user customer for instance currently as of march 2018 CBE have 4,196,279 total number of ATM registered customers from this number 1,089,931 customers are inactive meaning the card is prepared in their name but they are not using the card which is nearly 26% of the total recruited for ATM card and on average birr 75 is required to prepare a single ATM card (CBE .portal 2018). There for if the above number remains inactive the bank loses 75,089,931 birr. This inactive number also did not include those ATM cards that periodically discarded as a result of not collected by the customer on time that is not collected for more than six month.

Even though there are a number of research papers and journals on E banking technology and related titles in Ethiopia commercial banks and in CBE, none of them focus on the achievement of aggressive recruitment of E banking user customer, the progress of the technology, improvement on transaction made by E banking technology instruments, and the related bankers personnel view on the factors that favor and hinder consistent use of the technology.

Therefore the purpose of this project work is to figure out and describe the current status of E banking system in CBE, assess the progress of the technology on user number, transaction amount for the past few years, the trend of user recruitment for the technology, what employees perceived on the convenience of system for users, methods of handling and addressing customers complaints and requests on E banking technologies and also assess the related bankers view on hindrances and favorable factors on sustainable use of E banking technology, CBE opportunity and challenge of adopting E banking technology. Therefore, it was on the bases of this back ground, this study was aimed to examine the prospect: status and major challenges and opportunity of E banking in CBE by answering the following research questions.

## **1.4 RESEARCH QUESTIONS**

In assessing and analyzing the prospect of E banking in CBE current status, challenge and opportunity the target population were the employees of CBE in Addis Ababa city administration In order to achieve the intended objectives of the study and to address the research problem properly; the following research questions are designed.

1. What is the current status of E banking technology in CBE
2. What is the trend of E banking progress for the past few years in CBE
3. What are the factors that favors and hinders customers to sustainably use E banking system in CBE
4. What are the employees perceived challenges and opportunities to expand the technology
5. How are customers recruited for E banking use

## **1.5 OBJECTIVE OF THE STUDY**

The overall objective of the study is addressing the prospect of E banking system in CBE. More specifically the study is aimed to:-

- Assess the current status of E banking technology in CBE.
- Assess the progress of E banking for the past few years.
- Assess the percentage usage of registered E banking user customer.
- Assess the trend of E banking customer recruitment and complaint and request handling.
- Identify the most common factors that hinder and favor customers to sustainably use E banking technology in CBE.

## **1.6 SCOPE OF THE WORK**

In assessing the prospect of E banking technology in CBE: current status, challenge and opportunity secondary and primary data from the bank's Management Information System (MIS) department and randomly selected branch employees, in Addis Ababa city, who were working on E payment process i.e. ATM recruitment and distribution, mobile banking recruitment and activation, CBE BIRR user recruitment and activation and ATM reconciliation and adjustment were used. Because firstly both are the concerned organs regarding E banking issues of the bank as a whole and their respective branches respectively. Secondly the bank's MIS department could capture any E banking history performed by any kind of E banking instruments as a result

it became the right source of the secondary data information and at the mean time the primary data obtained via questionnaires from the branches concerned organs became relatively genuine as they are close to the case. The study tried to see the five year E banking user progress, transaction progress made by E banking instruments the last but not list it also address the banks perspective of the challenges and opportunities E banking technology.

## **1.7 LIMITATION OF THE STUDY**

The focus of this study is on the prospect of E banking system, challenge and opportunity in CBE and uses both primary and secondary source obtained from the banks MIS department, questionnaires done for the concerned employees that were working in E banking process at branches selected randomly from CBE branches found in Addis Ababa as an input and did not include customer or user perception about E banking technology which was crucial to know the prospect of E banking system and understand the challenge and opportunity in depth. Customer perceptions are also indispensable to find out factors that favor or hinder aggressive usage of E banking tools or instruments.

Even though the secondary data obtained from the banks MIS department did not affected by distance since the data is consolidated bank wise, the primary data obtained have been affected by distance, working environment, etc. but the study is focused only on CBE branches found in Addis Ababa city, the study also became more complete if it includes the E banking trend of some private owned banks however it include none of them.

## **1.8 SIGNIFICANCE OF THE STUDY**

The results of this research paper will have important contributions for CBE to understand the trend of customer's usage of the technology consistently and what looks like the technology as a whole. Particularly the study is significant for the following issues:-

- Provide opportunity for the respective decision-makers of the Bank's to Consider and evaluate the opportunities and problems observed in the existing Practices, in order to take appropriate corrective measures in the area or to accelerate the positive factors (if any) for the expansion of E-banking practices.
- It also describes the concerned employee's observation of E banking customer complaint and request handling that have an important contribution on sustainable usage of the technology.

- Since those employees that are working in the respective branches E banking department are on the first line to hear customer complaints on the convenience of the banks E banking products the result serves as a crucial inputs to take any necessary improvement on the technology.
- It suggests the respective organs of the bank about things to be done in order to scale up the favorable advantage and suggests corrective measures on those factors that hinders expansion of E banking system

## **1.9 ORGANIZATION OF THE PROJECT WORK**

The research report was organized into five chapters: Chapter one focuses on the background of the study, problem statement, objectives and significant of the study. In chapter two, a range of literatures review is captured there to gather relevant information concerning E-banking. In chapter three, detail of methodology followed to achieve results is outlined. It includes the study design, sampling, sampling technique and data analysis. Chapter four contained results and discussion from the study supported with findings from other research works. Chapter five focuses on main findings, conclusions and recommendations of the study.

## CHAPTER TWO

### 2 REVIEW OF RELATED LITERATURES

#### 2.1 DEFINITION OF E BANKING

There are many definitions about E banking but all revolves around “ means of transferring fund electronically or mechanisms ,tools for accessing their bank account without visiting the branches where their account is found .“ the following are some definition of E banking by different authors.

E-banking can mean the provision of information about a bank and its services via a home page on the World Wide Web (WWW). More sophisticated E-banking services provide customer access to accounts, the ability to move their money between different accounts, and making payments or applying for loans via E-Channels (a book by Mahmood Shah and Steve Clark 2009). Electronic banking, known as Electronic Funds Transfer (EFT), it is basically the use of electronic methods or means to transfer money electronically directly from one account to another account, rather than cash or cheque (Muhammed Rahimuddin and Syed Asif Abbas Bukharis 2010).

Another definition of E banking is that it is a service that allows an account holder to obtain account information and manage certain banking transactions through a personal computer via the financial institution web site on the internet (Mattewos Kinfе 2016). It is also defined as a complementary means of interacting with customers rather than a substitute for other channels such as physical branches (Kinoti Faith Kagendo 2015). In CBE E payment and E banking are used interchangeably and defined as electronic 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 (CBE E payment procedures 2016).

In more comprehensive way E banking is defined as :- It is an internet supported mechanism that enables customers to access their bank account, i.e. transfer money from one account to another, send money to beneficiary, produce mini statement of their transaction , payment to beneficiaries, pay bill, withdrawal of cash, electronically.

## 2.2 CLASSIFICATION OF E BANKING TECHNOLOGIES

Different authors classifies E banking technology differently for instance, (Kassahun Girma 2016) classifies as Plastic cards ,Automated Teller Machine ,Point Of sale (POS) ,internet or extranet ,mobile banking , agent banking or mobile money. In addition to the above types of E banking (Malak 2007) adds PC (personal Computer) banking and TV banking in his classification. ( Imola Driga, Claudia Isac 2014) presents E banking frame work and define each as follows

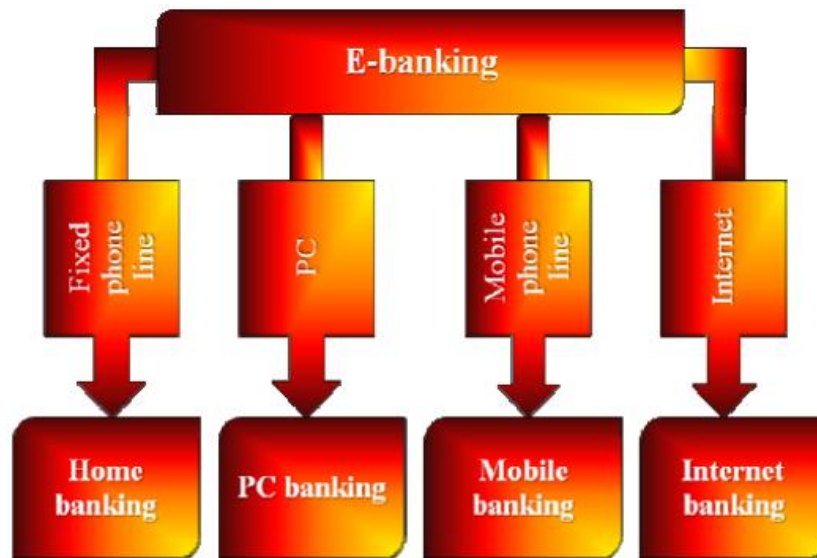


FIG. 2.1 E banking conceptual frames

Source: IMOLA DRIGĂ (2014)

**Home banking** - generally refers to the practice of conducting banking transactions from home rather than at branch locations that allows customers to obtain information about personal accounts via a phone call; it is based on the existence of a telephone line, a customer passwords and personal code that provide access to data; clients are able to consult account balances, transfer money within their accounts and conduct routine transactions.

**PC banking** - a form of banking that enables customers to perform bank transactions from a PC by providing a proprietary financial software program that allows the customer to perform financial transactions from his/her home computer via a modem.

**Internet banking** – also referred as online banking, web banking or virtual banking, an outgrowth of PC banking, is a more developed service, a system that enables bank customers to

access accounts and general information on bank products and services or perform account transactions directly with the bank through a personal computer using the internet as the delivery channel; customers are able to access all of their accounts through the website of the bank and are allowed to conduct banking activities such as transferring funds, paying bills, viewing account balances, paying mortgages or purchasing financial instruments and certificates of deposits.

**Mobile banking** - is a system that allows bank customers to conduct different financial transactions through a mobile device, being the newest service in electronic banking; mobile banking relies on WAP (Wireless Application Protocol) technologies since a mobile device requires a WAP browser installed in order to allow access to information.

In recent years it is not strange thing to see agent banking or mobile money system in Ethiopian banking industry financial institutes for instance “M BIRR” an agent banking system in Addis bidr and Quteba financial institutes, “Hello cash” in lion international bank, “CBE birr” in Commercial Bank of Ethiopia etc different authors are also wrote about agent banking for instance,

A bank Agent is a commercial entity that has been contracted by Commercial Bank and approved by the National Bank of the host country to provide specific services on behalf of the bank. Agents are equipped with the skills necessary to provide basic banking services according to standards set by the Banks with commercial banks key objective of offering the full range of banking services to their customers without them having to visit a branch. This provides the opportunity to access financial products and services at a location nearest to the customer, thus breaking down certain barriers to financial inclusion such as cost and accessibility (National Bank of Kenya).

Others also wrote the availability of the service and recommend the availability of appropriate agent banking channels and enhancing the educational level of agents and users are also critical concerns for financial institutions towards the provision of Mobile and Agent Banking in Ethiopia (Elfagid Aregahegh 2015).

### **2.3 BENEFITS OF E BANKING TECHNOLOGIES**

Disregarding the disadvantage of E banking technology many authors in different books and journals have a common understanding that E banking is advantageous and revealed the

advantage from two perspectives the first one is benefit from the bank perspective where as the second one is from the customer perspective one.

### **2.3.1 BENEFITS OF E BANKING TO THE BANKING INDUSTRY**

The effective delivery of E banking technology enables the banking industry to reduce operation cost at the mean time it helps to increase the profitability of the industry (Bonsu, Freda Among 2015). The adoption of E banking technologies helps the bank to attract potential customers as it becomes choices and creates convenience (Mohammed Shah and Steve Clarke 2009).

Customer satisfaction and customer service delivery are key element for banks to ascertain customer acquisition, retention and increase bank profitability. New technologies enabled banks to serve and assist customers not only in branches, but anywhere in the world for instance internet banking helps to access ones account everywhere in the world where internet is there , at any time and through any delivery channel a customer cares to select (Imola Drigă, Claudia Isac 2014). As it is stated by (Mohammed Shah and Steve Clarke 2009) E banking is easier to expand relative to branch expansion this helps the bank or the financial institutes to be accessible to their customers easily (Mohammad Azizul Baten, PhD and Anton Abdulbasah Kamil, PhD 2014).

It is stated that all banks in Ethiopia believe that providing banking service to customers via E banking technologies have the benefit of building good image, load reduction, enabling bank employees to focus on strategic issues instead of focusing on traditional activities (Mattewos 2014). It is also revealed the benefit of adopting E banking technologies to the banking industry from two dimensions of view i.e. operational benefit and service benefit (kassahun 2016).

### **2.3.2 BENEFIT TO THE CUSTOMERS PERSPECTIVE**

The benefits of E banking technology to users are stated by many authors in almost every article reviewed for this work. For instance it allows paying bill online without spending a lot of time. The main benefit from the bank customers' point of view is significant saving of time by the automation of banking services processing and introduction of an easy maintenance tools for managing customer's money (A.Anish Kumar S.Ariharan D. Asir Immanuvel ).

## **2.4 OVER VIEW OF E BANKING SYSTEM IN COMMERCIAL BANK OF ETHIOPIA**

CBE is a pioneer commercial bank to introduce E banking system in Ethiopia by introducing the first ATM machine in the late 2001. However it was also behind Dashen bank in active and aggressive usage of ATM (Rahel Mulugeta 2015).

Currently CBE is aggressively recruiting the user of ATM, Mobile banking, Internet banking, Agent banking (CBE BIRR) this helps the bank customers to access their account 24 hours and 7 days a week and helps also to get banking service in the area where there are no banks via agent banking system. And CBE tries to expand the technology and increase the users of such technologies via target base recruitment as a result branches are working focusing the target number to be achieved by the end of the business year. (different brochures of the bank and sounds of CBE E banking promotion via medias )

### **2.4.1 CHALLENGE AND OPPORTUNITY OF E BANKING TECHNOLOGY IN CBE**

There are a number of challenges and opportunities in the adoption of E banking technologies in the Ethiopian banking industry for instance ( Garedachew Worku 2010) identifies Opportunity offered by ICT through E learning program, Late adopter opportunity as an opportunity and Low level of internet penetration and poorly developed telecommunication infrastructure , frequent power interruption , Change resistance among customers and staffs as a challenge .

Even though CBE customers are satisfied by the banking service provided to them they are facing a number of problems regarding the consistent use of the banks E banking technologies these problems are network failure, power failure, system failure and machine break down, cash shortage in ATMs and unavailability of internet. Though there is a good starting regarding language usage in the newly adopted E banking technology, CBE BIRR, there are language barrier to perform the operations of mobile banking and internet banking channels in an easy and understandable manner. This indicted that it hinders the utilization rate as well as attraction of more customers. In addition to these problems customer compliant handling method has also influence the consistent use of E banking technologies by customers and make them to lose trust on the technology. Study showed that customers complaints were solved with a delayed time (a week and more) (Dr. Uvaneswaran .S.M, Ms. Eldana Kassa, Mr. Seid Muhammed Hamid 2017).

### **2.4.2 PROSPECT OF E BANKING TECHNOLOGY IN CBE**

E-banking has the potential to be a very rich and pleasant experience, and may provide more opportunities for banks to develop mutually satisfying, tailor made services to enrich relationship with customers. As technology evolves, the opportunities to extend the relationship beyond what is possible in the physical world continue to grow and will only be limited by a bank's ability to innovate or commitment to E banking ( Mahmood Shah and Steve Clarke p. 25).

Most of the literatures on E banking technologies in Ethiopia agree that it is an early stage of development for instance on birritu magazine No. 119 it is stated that mobile banking is untapped technology in Ethiopia. Despite the growth of IT Ethiopian banks continue to conduct most of their banking transactions using traditional methods. In Ethiopia, however, cash is still the most dominant medium of exchange, and electronic payment systems are at an infant stage (Beza Muche 2010). E banking technology were not well adopted by the Ethiopian banking industry some of the factors for the poor adoption of the technology is that lack of trust on the use of the technology (Ayana Gemuchu 2012), customer privacy is also another factor in the poor adoption of e banking technology that is customers might be concerned about the length of time involved in waiting for transaction or learning how to operate it (Gadise Gezu,tekabe Sintayehu 2017) . At the mean time banks except providing the tools for E banking technologies have not given any organized training for customer in order to create awareness about it (Worku G, Tilahun A and Tafa MA 2016).

The Ethiopia population exceeds hundred million thousand and at the same time Ethio telecom is also working to reach in every corner of the country and recent ethio telecom news showed that the countries mobile users number reached 64 million and are working to have more than this .But as I it is expressed in the E banking frame work mobile is one of the instrument to conduct E banking technology as a result CBE has a promising future regarding E banking if it utilize the opportunity properly. Articles are also in favor of this for instance, it is founded that Mobile penetration and high population growth rates, poverty reduction, additional revenue making and cost reduction were the main drivers for the provision of Mobile and Agent Banking business in Ethiopia with the significance role of one of the basic feature of the technology i.e. user friendliness (Elifagid Aregahegne 2015).

## 2.5 GAP OBSERVED IN THE LITERATURES

There are numerous number of research, journals, articles on E banking technology in Ethiopian banking industry as well as in CBE to list some of them factor affecting E banking adoption (Ayana Gemechu 2014), impact of E banking on customer satisfaction (Worku G, Tilahun A and Tafa MA 2016), challenge in E banking service and its impact on profitability (Dr. Uvaneswaran .S.M, Ms. Eldana Kassa, Mr. Seid Muhammed Hamid 2017) etc . However none of them focused on the status of the technology specific bank, i.e. Where it is know? Meaning what looks like the progress of E banking user number in CBE for the past five years , what percentage of the total yearly transaction of CBE is performed via E banking technologies what percentage of the total customers are E banking user what is the transaction amount done via E banking products in a certain bank .

In addition to these various researchers list the challenges and opportunities of E banking technology in Ethiopia which are common to every banks in the industry for instance (Garedachew Worku 2010) mentioned poor ICT infrastructure, power and network interruption as some of the challenges and the countries commitment to the growth of information technology and late adoption of E banking as some of the opportunities. It is also revealed, based on customer response, that customer compliant regarding E banking problem was responded in a delayed time. (Dr. Uvaneswaran .S.M, Ms. Eldana Kassa, Mr. Seid Muhammed Hamid 2017) but it is not supported by the respective bankers who are working in the E banking division of the branch that is ATM recruitment and distribution, mobile banking recruitment and activation, internet banking recruitment and activation, ATM reconciliation and adjustment and CBE birr user recruitment and activation

Therefore the study will fill these gaps by depicting the current status, progress of E banking user for the past five years and at the mean time it also assessed the financial transaction percentage performed by E banking instrument in CBE the study used secondary data for this purpose. It also assessed customer compliant handling, reliability of the technology and User recruitment method of the bank ,that are affects the trend customers to use the technology sustainably, based on the respective bank employees' response.

## **CHAPTER THREE**

### **3 RESEARCH METHODOLOGY**

This chapter discusses the methodology approach for the study and highlights the research design, target population, sampling technique, data collection instruments and data analysis and presentation. It also addresses ethical, validity and reliability issues.

#### **3.1 STUDY AREA**

The study conducted in CBE because currently the bank is working to be world class commercial bank by the year 2025 and aiming to create cash less banking society. Therefore it uses E banking technology as a tool for this purpose as a result it expands E banking technology aggressively by different mechanisms like declaring campaign week , setting branches target different means of advertisement etc . Moreover being staff of CBE the researcher is close to the organization.

#### **3.2 RESEARCH DESIGN AND APPROACH**

Research design is usually a plan or blue print which specifies how data relating to a given problem should be collected and analyzed. It provides the procedural outlines for the conduct of any investigation (Mattewos Kinfu 2016). And Descriptive research design is defined as a scientific method which involves observing and describing the behavior of a subject without influencing it in any way. It designed to gain more information about variables within a particular field of study. Its purpose is to provide a picture of a situation as it naturally happens (Catherine W Karungu 2014). In this study the researcher aimed to obtain information concerning the current status of E banking technology in CBE, what looks like the progress on E banking user number and financial transaction made via the technologies? The study is also concerned to observe what exists with respect to the variables, customer compliant handling method, and customer recruiting methods, system accessibility with regard to E banking technology in CBE as a result of this descriptive research approach is used

#### **3.3 RESEARCH POPULATION AND SAMPLING**

In this study, the sampling was held after identifying the optimum number of CBE braches that are functional in Addis Ababa city. CBE had 15 districts throughout the country and four of the

fifteen are found under Addis Ababa districts that are north, south, west and east Addis Ababa. However all branches under Addis Ababa districts are not found in the city administration zone some found outside. But the study used braches that are found only in Addis Ababa city. In addition to this the study focused on those branches that were opened a year before this is because those branches that are opened and functioning recently did not have much experience on E banking.

### **3.3.1 TARGET POPULATION**

The target population for this study were those CBE employees who were working in different branches of the four Addis Ababa districts that were located under Addis Ababa city administration .This is because there are branches, like Woliso, Holeta, Bishoftu,Debrebrhan etc ,grouped under Addis Ababa districts but found outside the city administration zone . The respondents were selected from the total of 30 branches of the four districts and founded only in the cities which were selected proportionately based on the number of branches found only on the city administration. The study assumed on average fifteen employees on a single branch that have considerably close to the case as a result it considered 3930 CBE employees worked in Addis Ababa different branches of the four district.

### **3.3.2 SAMPLING FRAME**

This sub-section is expected to address the object within which the information is desired from CBE employees found in the 262 branches of the four districts that are located only in Addis Ababa city administration zone and samples were drawn from a total of thirty branches proportionately selected from the four districts of Addis Ababa based on the number of branches found in the city and these branches were selected based on their experience in the industry. With this, the researcher tried to obtain information regarding: customer's compliant handling method, E banking user recruitment method and the reliability of the system.

### **3.3.3 SAMPLING TECHNIQUE**

The researcher used cluster sampling based on proportional stratified sampling to select the representative samples from CBE branch employees worked only at Addis Ababa city administration. The researcher considered the four districts as an exclusive four different clusters and each branch under the four districts, located only at the city, as different strata and finally probability sampling technique is used to select representative from each stratum. The reason for

using proportional stratified sampling technique was that, there was different number of sample units in terms of total number of branches in the four districts but found under the research area and total number of employees in different branches.

### **3.3.4 SAMPLE SIZE DETERMINATION**

In determining sample size for the study , the researcher considers the resource available to conduct the study specially time .Therefore it shares the formula provided by Taro Yemane as cited by (Worku G, Tilahun A and Tafa MA 2016) that is

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

Where: n:-is estimated sample size

N: - is the total population size

e: - sampling error

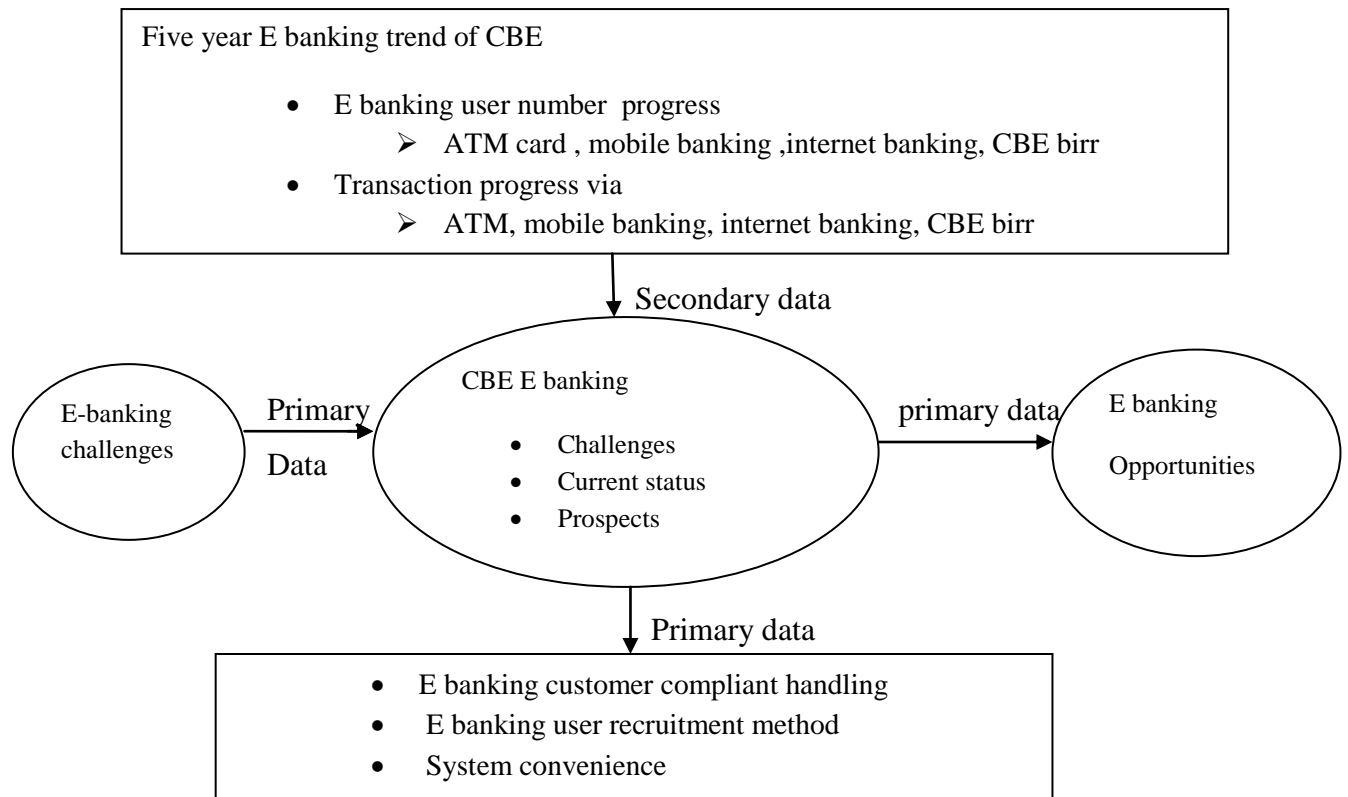
Here also the researcher assumed 7% level of precision or sampling error (e) and, desired a confidence level of 93%, while expecting a margin of error to be 7%. Which is also used by (Dr. Uvaneswaran .S.M, Ms. Eldana Kassa, Mr. Seid Muhammed Hamid 2017). Based on these the total sample size was 194 employees from the total population of 3,930 CBE employees in Addis Ababa city and applied proportionate sampling to determine number of branches to be included from the respective districts and number of employees within the selected branches and probabilistic sampling technique were used to select the branch from each districts and employees from the selected branches.

### **3.4 SOURCE OF DATA COLLECTION**

The study mainly uses secondary source of data to investigate the current status of E banking technology, trend of E banking and the study will also use primary source of data to analyze factors that favors or hinders the consistence use of e banking technology from the banks perspectives. The sources of the primary data for this study were employees of Commercial Bank of Ethiopia in randomly selected city branches of the four districts of Addis Ababa. The secondary data was collected from the banks Management Information System found at head office stemming from the year 2012 to up to march31 of 2018 five years period. Besides, various procedure manuals, strategic documents of CBE and different Bank-related Magazines (CBE) were used. In addition, findings of prior research works, E banking journals, service marketing books and, the CBE website were highly utilized as reference materials.

### 3.5 DATA COLLECTION INSTRUMENT

The required data and/or information were obtained through questionnaire, prepared in the form of both objective and open-ended types of questionnaire. While, secondary data was collected mainly from annual financial statement of CBE in order to depict the current status of E banking technology in CBE and visualize the trend of E banking progress in terms of user number, financial transaction made via the technology, active and inactive user and the like. While collecting primary data, questionnaires were distributed to the banks employees who are currently working in E banking related position like ATM reconciliation and adjustment, ATM activation and distribution, CBE birr Recruitment and activation new account opening windows and worked in these positions previously keeping the relative proportion of each branch under the respective districts and the total employees in the selected branches. Questionnaires were assigned by respective code numbers. Respondents filled and completed their response for each provided questions. After it, the researcher checked and corrected whether or not questionnaires were properly filled. Then, questionnaires were filtered and organized for further data processing.



**FIG. 3.1 Research Methodology Design**

### **3.6 VALIDITY AND RELIABILITY**

Reliability is explained as a condition whereby scales show a satisfactory level of internal steadiness, uniformity, self sufficiency and self determination ( Muhammed Rahimuddin and Syed Asif Abbas Bukharis 2010) . It is also stated as the extent to which data collection techniques or analysis procedures will yield consistent finding (Easterby-Smith *et al.*, 2002:53) as cited by Mark Saunders,Philip Lewis,AdrianThornhill (2007) in their book of “ research methods for business students “.Validity is also explained as the degree to which a study precisely replicates or reviews the particular idea that the researchers are trying to calculate. (Campbell & Stanley, 1966) as cited by ( Muhammed Rahimuddin and Syed Asif Abbas Bukharis 2010).

The study was based on mainly secondary and primary source of data. The secondary data was obtained from the banks E payment department and publication made by the respective organs of the bank in the banks web address like portal ,news disseminated via the banks television channel and E banking department to get document file regarding the trend of E banking in CBE. And the data were gathered by the researcher by visiting the respective organs of the bank that were directly concerned the issue raised in the study and referring the banks web site and television channels. With regard to the primary data questionnaires were planned to gather information concerning the customer compliant handling method, ways and trend of E banking user recruitment method and the accessibility of the system that employees observed as a challenge and opportunities for the prospect of E banking technologies in the bank.

The questionnaires were distributed for those employees that are close to the technology in their stay in the bank and currently are working in the position and or experienced the case in the past. The issues raised in the questionnaires were developed based on the researcher experience as a CBE staff and based on the different reviewed journals and articles for the case. All these made the data collecting means reliable and enhance the validity of the findings.

### **3.7 METHOD OF DATA ANALYSIS**

During data analysis period, descriptive statistics were used as per the desired objectives of the study. For descriptive statistics, Frequency distribution for each variable was first determined, and result values were expressed in percent. Aggregated variables per unit of inquiries were presented through summary tables. On the other hand, measures of central tendencies (i.e. mean

median mode) were used in order to depict the secondary data for the current status and E banking trend of CBE for the past five years. Appropriate graphs were also used to depict the trend graphically.

### **3.8 ETHICAL CONSIDERATION**

Research ethics relates to questions about how we formulate and clarify our research topic, design our research and gain access, collect data, process and store our data, analyze data and write up our research findings in a moral and responsible way (Mark Saunders, Philip Lewis, Adrian Thornhill 2007). The researcher understood the rule and regulation of conducting business research and binds on those rule. Informed verbal and Written consent were obtained from the study subjects and data collection was undertaken on the basis of their voluntarily participation. Participating respondents was ensured that information obtained will be strictly confidential

## CHAPTER FOUR

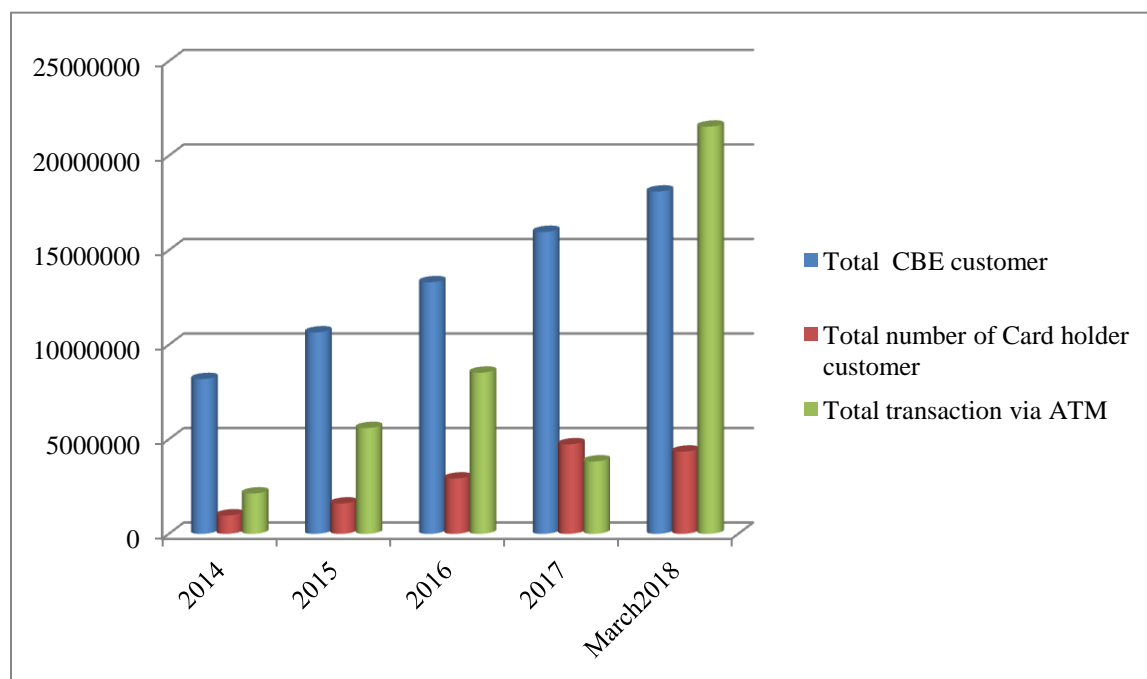
### 4 DATA PRESENTATION , ANALYSIS AND INTERPRETATION

The study used both primary and secondary data source. The secondary data was obtained from the banks Management Information System department, now onwards MIS, and used to show the trend of E banking system in CBE starting from 2014 up to march 31 of 2018. And the study used different graphs and tables to show the trend and the current status. The primary data were collected via questionnaires targeting the employees of CBE who are closely related to the case.

#### 4.1 ANALYSIS OF SECONDARY DATA

##### 4.1.1 TRENDS OF ATM PROGRESS IN CBE

The following graphs shows the trend of ATM card user against the total customer base and to transaction made via ATM technologies for the past four year and up to march 31 of the current year.

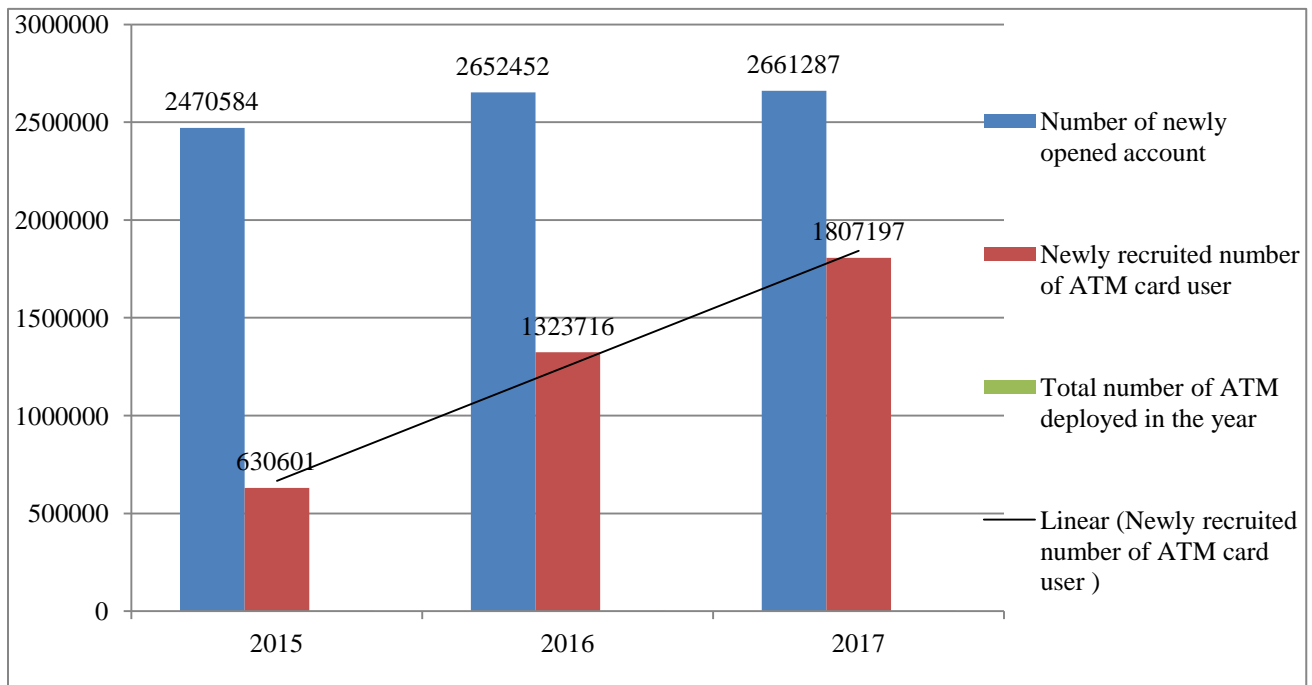


**Fig. 4.1 trend of ATM user against total customer and transaction number**

**Source: CBE Management Information System department**

The above graph shows that the number of banking customers of CBE are increasing yearly at the same time the number of ATM card users number are also increasing. However the ratio of total yearly transaction to the total card holder are nearly 2:1, 5:1, 3:1, 1:1, 5:1 in 2014, 2015,2016,2017,2018 respectively indicate that a single card holder used ATM card twice a year in 2014, five times in a year in 2015, three times a year in 2016, and even a single card holder used the card only once in 2017. The ratio indicates that the number of transaction made via ATM card for banking transaction is too low this is might be the low awareness of the customer about the technology and poor customer complain and request handling may force customers not to use the technology sustainably and there might be low system conveniences to use.

Currently as of march 31 2018 nearly 24% of the total banking customer were using ATM card actively. With regard to the Recruitment of new ATM card user from those newly opened accounts it is depicted in the following graph for the past three years.



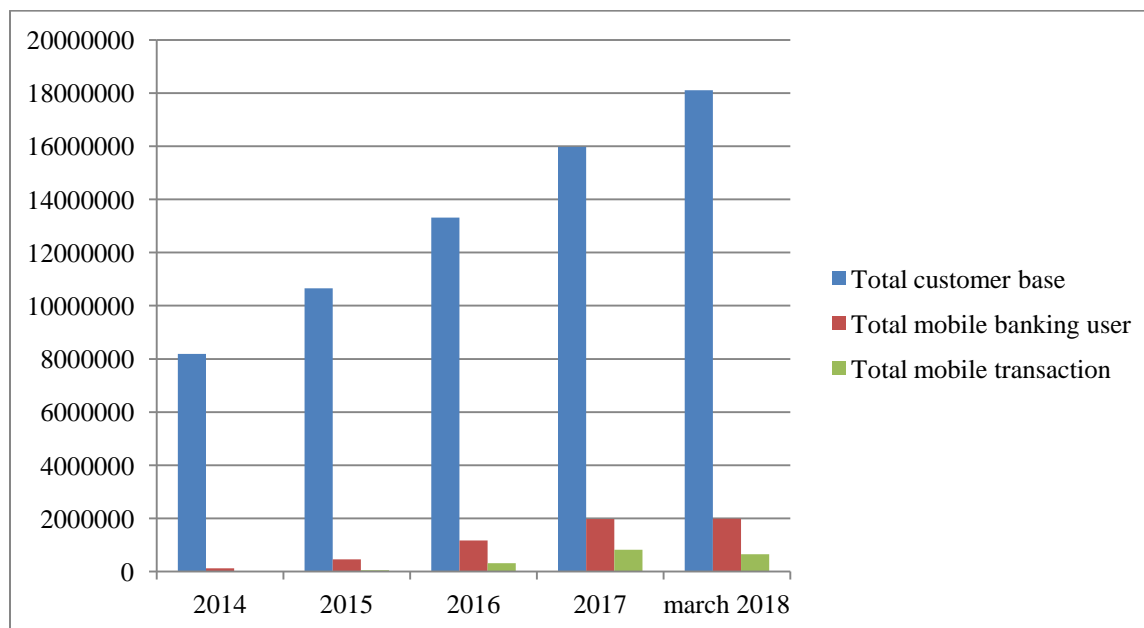
**Fig 4.2 progress of new card user in relation to newly opened bank accounts and new deployed ATMs**

**Source the banks MIS department and calculated for convenience of use**

All newly opened accounts in the study years might not be eligible for ATM card user for instance from those newly opened account it might include fixed time deposit ,minor account , and account ,etc that were not eligible for ATM card user .However regardless of the non eligibility of accounts for ATM card use the trend of number of card user customers recruited for ATM card use from the newly opened bank accounts shows increments that is 24% of the total newly opened accounts were ATM card user in 2015 ,and this number became 50% in 2016 and reached 68% in 2017. However the rate of increase of the ATM numbers is not proportional to the number of newly recruited card user customer for instance for the 630,601 new card user the number of increase in the number of ATM is 211 in 2015 and 612 for the 1,807,197 increase of newly opened card user which seems un proportional increase and could create system inconvenience to use.

#### 4.1.2 ANALYSIS OF MOBILE BANKING TREND

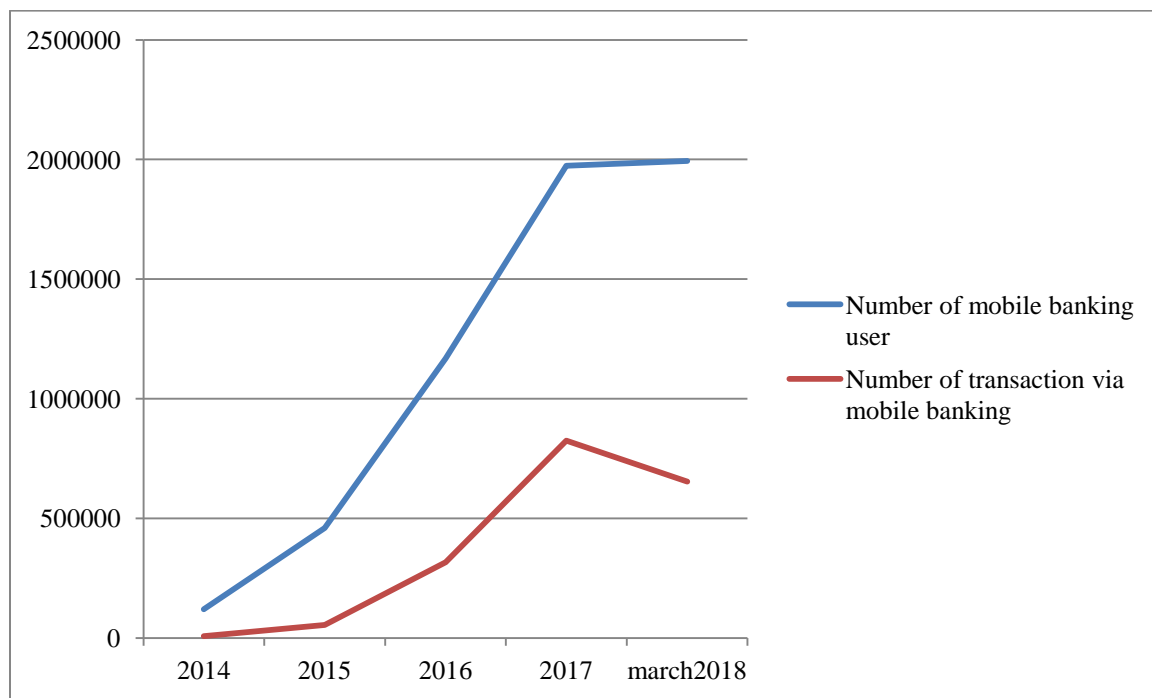
The other product for E banking system in CBE is mobile banking system. It is a technology that enables banking customers to access their account via their mobile phone and the trend of mobile banking in different perspectives for the past four years and the current period looks like the following



**Fig 4.3 trend of mobile banking progress against total customer and number of transaction**

**Source: MIS department of CBE**

As the above graph shows as the number of customer increases the number of mobile banking user and the number of transaction made via mobile banking system also increases. However resembling to the trend of ATM banking system every registered mobile banking user were not used the technology at least once in a year since every year the number of transaction made is by far less than the number of registered and active mobile banking user. Though the number mobile banking user is increasing the percentage of mobile banking against total customer size is still very low that is 1.5%, 4.3%, 8.78%, 12.36%, and 11.01% in the year 2014,2015,2016,2017. And march 31 of 2018 respectively. But here the researcher notice that irrespective of the very fewness of transaction number relative to the total mobile banking user the transaction amount done via mobile banking was extremely large amount.



**Fig 4.4 mobile banking user number vs. number of transaction made via mobile banking**

**Source: the MIS department of CBE**

As the above graph shows the trend of mobile banking user and transaction made via the mobile banking system shows increments. However the total number of transaction is by far less than the total number of mobile banking user for instance only 6.02%, 11.77% 27.05%, 41.77% and 32.78% of the total mobile banking user made transaction in 2014,2015,2016,2017 and march 31

2018 respectively this indicates that not every mobile banking user recruited are not using the technology sustainably even the majority of the recruited mobile banking user were not used the technology once. This could happen because of the poor awareness of the customer about how to use the technology, the customers might recruit simply for the fulfillment of the branch target, or the system might not available equally in different parts of the country.

### 4.1.3 ANALYSIS OF INTERNET BANKING

Internet banking is also a tool for E banking technology that enables banking customers to access their account electronically anywhere in the world where internet access is there. CBE is also expanding the technology and the trend of internet banking for the past four years and up to March 31 of the current years in terms of the total user number progress and total number of transaction made via the technology looks like the following

Year	Number of internet banking user	Total transaction made via the technology	% of transaction against user number	Amount of transaction	Amount per transaction
2014	1,771	223	12.59%	8,798,100.66	39,453.37
2015	6,338	6,269	98.91%	24,013.92	3.83
2016	26,544	12,103	45.60%	343,919,671.20	28,416.07
2017	45,506	16,337	35.90%	517,873,453.60	31,699.42
March 2018	46,983	26,220	55.81%	2,164,354,703.02	82,545.95

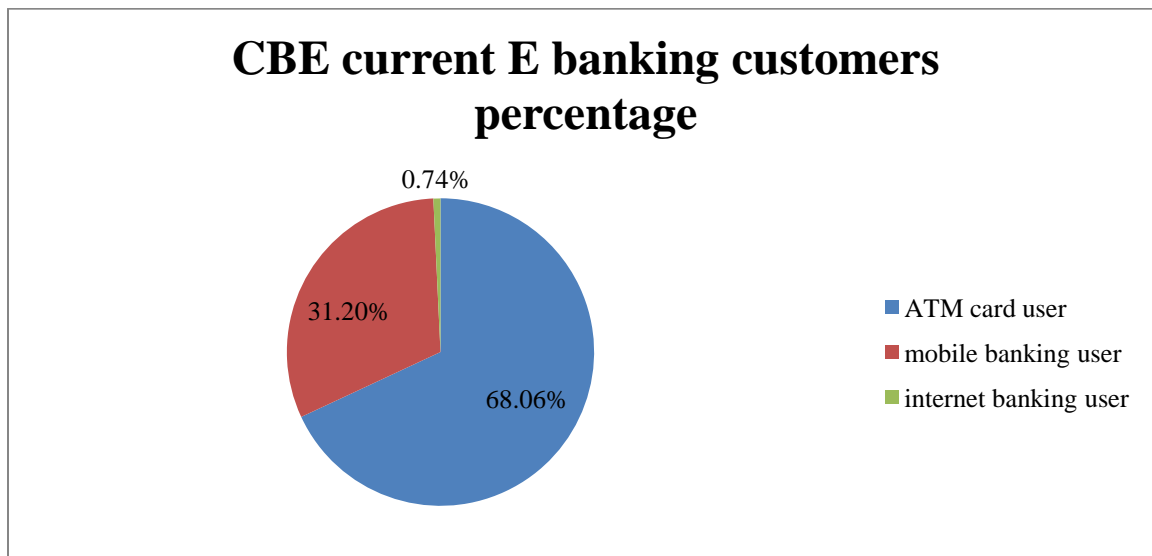
**Table 4.1 internet banking user and transaction progress**

**Source MIS department**

In a similar fashion with the mobile and internet banking trend of CBE internet banking were also showed progress with regard user number, number of transaction made via technology yearly. However as the above figure shows all the internet banking customers did not use the technology for instance in 2014 , though there are 1,771 internet banking customers, the total transaction made via the technology is 223 with in the year which was 12.59% of the total

internet banking user . Similarly up to March 31 of 2018 from the total internet banking user of 46,983 customers there were 26,220 transactions which was 55.81% of the total internet banking customers. This might be due to:- firstly, poor awareness of users how to use the system during recruitment. Secondly it might also lack of proper promotion supported by video clips how to use it thirdly it might be also due to poor customer compliant and request handling that made customers discouraged to use the technology.

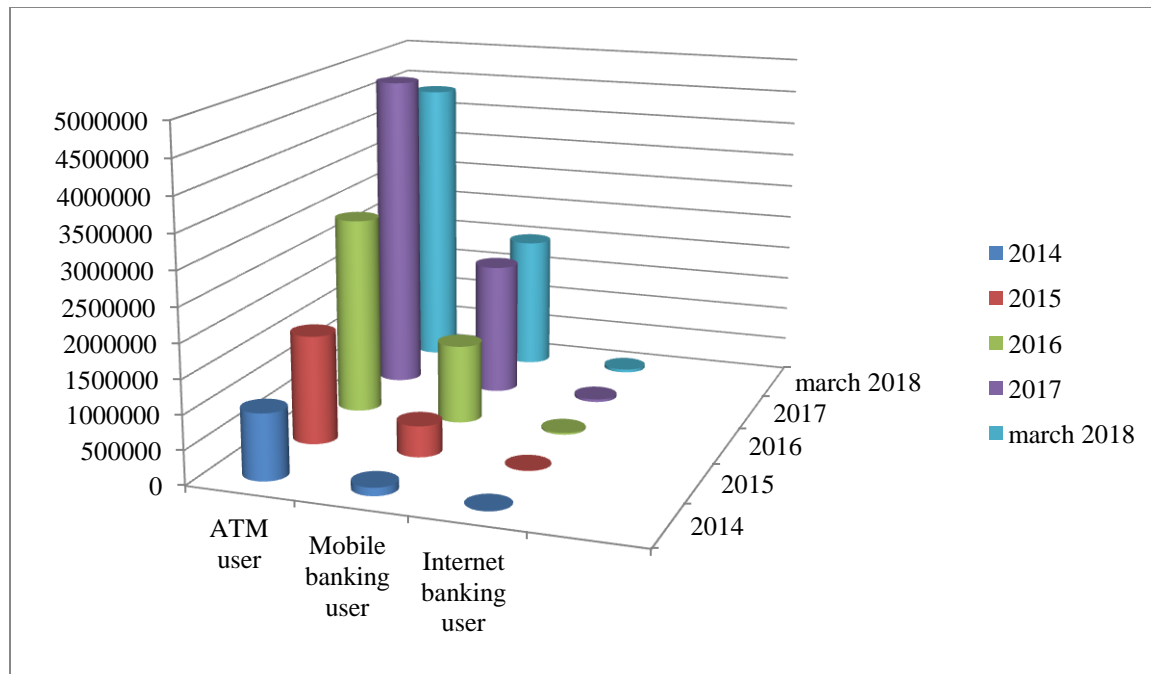
Like the cases in the other product of E banking technologies the transaction amount performed via the internet banking are still very large amount and shows progress from year to year this indicates those that are using the internet banking have confidence on the technology to transfer even large amount of money. In general as of march 31 2018 nearly 35.3%, of the total CBE banking customers, were using at least one of the banks E banking product and the percentage of each E banking instruments looks like the following .



**Fig4.5 current status of E banking customers in CBE**

**Source: MIS department of CBE**

In general the progress of the yearly active user of E banking products of CBE regardless of the yearly transaction number of each products and transaction amount looks like the following:-



**Fig 4.6 Trend E banking user progress**

**Source: the MIS department of CBE**

As the above graph shows there is yearly increment on the yearly active user on ATM user, mobile banking user and internet banking user. However the rate of increase were not consistent from year to year but on average there were 160.75%, 137.02%, 48.89% increment on the active user of mobile banking user, internet banking user and ATM card user respectively for the past five years.

## 4.2 ANALYSIS OF PRIMARY DATA

This section is aimed to supplement the secondary data obtained from the banks MIS department and to consolidate the analysis made based on the secondary data. Therefore the researcher used the banks employees who are close to the subject that is E banking system and distributed questionnaires (please refer the appendix for the questionnaires) for 194 employees selected from the four district of Addis Ababa proportionally based on the number of branches found in the city and random employees in the selected branches regarding the trend of E banking customer compliant handling method, new E banking customer recruitment trend, system convenience for use and the observed challenge and opportunity to expand the technology. And 180 questionnaires are filled and collected which is 92.78% of the total distributed.

#### 4.2.1 ANALYSIS OF NEW E BANKING CUSTOMER RECRUITMENT METHOD

The following table shows the employees response regarding the questions raised on the trend of E banking customer recruitment

Factors	SA 5	A 4	N 3	D 2	SD 1	Mean	Std Dev
I believe branches' target base E banking user recruitment strategy helps to have the right user of the technology	21	81	26	37	15	3.31	1.17
	11.67%	45%	14.44%	20.56%	8.33%		
Branches usually gave adequate explanation of how to use the technology after recruiting the customer for E banking user	29	94	31	26	-	3.7	0.91
	16.11%	52.22%	17.22%	14.45%	-		
I believe new E banking customer creation and lesson giving how to use it would take a lot of time at branch	21	57	29	57	16	3.06	1.38
	11.67%	31.67%	16.11%	31.67%	8.88%		
I believe the bank is promoting the technology adequately in a manner that helps new users to understand how to use it and explains the benefit of using the technology	29	94	31	23	3	3.68	0.96
	16.11%	52.22%	17.22%	12.78%	1.67%		
CBE is encouraging the use of E banking technology via advertisement and motivate users through incentives and discounts	44	83	29	16	8	3.77	1.05
	24.44%	46.11%	16.11%	8.89%	4.45%		
I believe every registered E banking customer did not use the technology consistently because of lack of awareness of how to use it.	39	63	23	29	26	3.33	1.36
	21.67%	35%	12.78%	16.11%	14.43%		
Overall the current E banking recruitment method is proper and contributes to have the right and consistent user customer	16	60	52	34	18	3.12	1.12
	8.89%	33.33%	28.89%	18.89%	10%		

**Table 4.2 CBE E banking user recruitment trend**

**Source: questionnaires respondents**

In the table 4.2 above it is showed that 56.67% of the total respondents with mean 3.31 and standard deviation 1.17 agreed that the current E banking user customer recruitment trend of CBE, based on allocated target for individual branches, contributes to have the right user of the technology and 28.89 % of the total respondent were against this where as 14.44% of the respondents were indeterminate. The result is also in favor of the secondary data source that is there was yearly progress on the total number of E banking user customer for every kind of E banking products for the past five years.

With regard to the adequacy of the banks' promotion and make ease of the technology 58.33% of the total respondents with mean 3.68 and standard deviation 0.96 agreed that the bank is promoting and make ease of the technology adequately and 17.22% and 14.45% of the total respondents were against and indeterminate respectively. However 56.67% of the total respondents with mean 3.33 and standard deviation 1.36 agreed that every registered E banking customer in CBE did not use the technology consistently due to lack of awareness of how to use the technology, but 30.54% and 12.78% of the total respondents were against and indeterminate of the case respectively . The result obtained here is also in supplement of the secondary data source that is the total yearly transaction number done via the banks' E banking product is by far less than the total number of registered customer for each product or not proportional.

On the overall properness of the banks E banking user recruitment method to have the right and sustainable user of the technology 42.22% of the total respondents with mean 3.12and standard deviation 1.12 were in favor of this and identical percentage were against and indeterminate of the point.

#### **4.2.2 ANALYSIS OF E BANKING CUSTOMER COMPLIANT HANDLING METHOD**

The second issue in the prospect of E banking technology in Commercial Bank of Ethiopia is how the bank handle complains and requests raised by users of the technology. In CBE, even though the majority of E banking customers was satisfied by the E banking service, they faced different problems in using the technology. However customer complain regarding E banking technology is responded in delayed time usually a week and more (Dr. Uvaneswaran .S.M, Ms. Eldana Kassa, Mr. Seid Muhammed Hamid 2017). A total of nine questions were distributed to the banks' employees who were working on E banking and related works branch wise regarding the banks' E banking customer compliant and request handling (please refer the appendix at the end ). And all the respondents collected answered all the questions raised in this part and the result is summarized in the following table as follows.

Factors	SA 5	A 4	N 3	D 2	SD 1	Mean	Std Dev
There are repeated and various kind of customer complaints on E banking systems of CBE	57	94	13	13	3	4.05	0.91
	31.67%	52.22%	7.22%	7.22%	1.67%		
There is a close management follow up and involvement on E banking customer complaints and request	15	89	26	29	21	3.27	1.18
	8.33%	49.44%	14.44%	16.12%	11.67%		
E banking transaction error are adjusted with in reasonably short time period	18	55	21	63	23	2.9	1.25
	10%	30.56%	11.67%	35%	12.77%		
There are adequate coordination, interaction and cooperation between your branch and other decision making centers in E-banking context	10	65	42	44	19	3.02	1.12
	5.56%	36.11%	23.33%	24.44%	10.56%		
Customer request for new PIN, replacement of damaged or expired cards and other related issues are solved with in short period of time	18	37	13	73	39	2.57	1.30
	10%	20.56%	7.21%	40.56%	21.67%		
Any CBE branch E banking customer request and complain must handled in any branch	5	13	34	73	55	2.11	1.01
	2.78%	7.21%	18.89%	40.56%	30.56%		
Regular banks' effort to understand user requirements and handle complain	16	57	39	55	13	3.04	1.12
	8.89%	31.67%	21.67%	30.56%	7.21%		
regular undertaking of survey by the bank for the acceptance and early upgrading of the technology	10	49	76	37	8	3.09	0.93
	5.56%	27.22%	42.22%	20.56%	4.44%		
Overall the banks E banking customer compliant and request handling method is proper and did not discourage customers from use	5	47	44	47	37	2.64	1.15
	2.78%	26.11%	24.44%	26.11%	20.56%		

**Table 4.3 customer compliant and request handling**

**Source: questionnaires**

In the table given above it is showed that 83.89% of the total respondents with mean 4.05 and standard deviation 0.91 agreed that E banking customers in CBE were complaining on the service repeatedly where as 8.89% and 7.22% of the total respondents were against and indeterminate respectively . At the same time 57.77% of the total respondents with mean 3.27 and standard deviation 1.18 agreed that there were close management follow up on users complain and request where as 27.79% and 14.44% of the total respondent were against and indeterminate respectively .

With regard to adjustment of E banking transaction error 40.56% of the total respondents with mean 2.9 and standard deviation 1.25 agreed that E banking transaction error are adjusted with in reasonably short period of time where as 47.77% and 11.67 of the total respondent were against and indeterminate respectively this indicates the majority of the respondents agreed that E banking transaction error were not adjusted on time. In addition to this 30.56% of the total respondents with mean 2.57 and standard deviation 1.30 agreed that E banking customer request for replacement of expired and damaged E banking instruments ,request for new PIN ,etc. were solved with in reasonably short period of time. But 62.23% and 7.21% were against and indeterminate respectively. This also indicates customer were served in delayed time to get back expired or damaged E banking instruments and this might discouraged customers from use of the technology consistently and might forced them to turned back to the traditional means of getting banking service .

71.12% of the total respondents with mean 2.11 and standard deviation 1.01 agreed that E banking customer request and complains were not handled in any CBE branch except in their original branch where their account is found. And respectively 18.89% and 9.99% of the total respondents were indeterminate and agree that E banking customer request and complaint were handled in any CBE branch. Overall 46.62 % of the total respondents with mean 2.64 and standard deviation 1.15 agreed that the current CBE E banking users customer compliant and request handling method are not proper and discourage them from use where as 28.89% and 24.44% of the total respondents were against and indeterminate of this respectively.

### **4.2.3 ANALYSIS OF SYSTEM CONVENIENCE AND RELIABILITY**

In this section the convenience and reliability of the bank's E banking technology would be addressed from the employee's point of view as they are at the front line in any observation regarding system and related problem. To this end a total of nine questions (please refer the appendix) were asked aiming to look over the employees perception about the E banking system, meaning the all time system availability, accurately functioning of system, system easiness for use in terms of language and their perception on the daily limitation E banking transaction were included in the questionnaires distributed in the various branches of CBE at Addis Ababa city and out of the 180 filled and collected respondents all answered the nine questions .And the result is summarized in the following table as follows.

Factors	SA 5	A 4	N 3	D 2	SD 1	Mean	Std Dev
I believe all the bank's E banking technology systems are available all the time.	8 4.44%	44 24.44%	23 12.78%	55 30.56%	50 27.78%	2.47	1.25
I believe the current E banking technology server of CBE is processing banking transaction correctly.	5 2.78%	55 30.55%	41 22.78%	63 35%	16 8.89%	2.83	1.05
All the bank's E banking system are designed in understandable manner and presented with different language.	18 10%	70 38.89%	29 16.11%	52 28.89%	11 6.11%	3.18	1.14
I believe the daily limitation on every kind of E banking system for transferring and withdrawal of cash is sufficient and had acceptance by customers	13 7.21%	68 37.78%	34 18.89%	55 30.56%	10 5.56%	3.11	1.09
Every E banking system of the bank is configured so as to transfer and withdraw for every possible amount.	5 2.78%	47 26.11%	18 10%	63 35%	47 26.11%	2.44	1.21
I believe the current E banking systems of CBE are not performing well due to server being down and maintenance.	23 12.78%	84 46.67%	31 17.22%	34 18.89%	8 4.44%	3.44	1.07
I believe the bank's E banking systems requires a lot of time to be available for use	13 7.22%	63 35%	34 18.89%	57 31.67%	13 7.22%	3.03	1.12
I believe performing banking activities via CBE E banking technologies requires a lot of time	8 4.44%	55 30.56%	36 20%	63 35%	18 10%	2.84	1.01
Overall the bank's E banking technologies are conveniently presented to users	10 5.56%	78 43.33%	21 11.67%	58 32.22%	13 7.22%	3.08	1.12

**Table 4.4 system convenience and reliability**

**Source: questionnaires**

In the above table it is found that 58.34% of the total respondents with mean 2.47 and standard deviation 1.25 agreed that the E banking system of CBE did not available certainly as required but 28.88% and 12.78% of the total respondent were agreed and indeterminate respectively that the E banking system was available all the time. This might discourage users from use of the

technology since it becomes unreliable for consistent use. With regard to the daily limitation on E banking transaction the majority of the respondent, 44.99%, agreed that it is sufficient and acceptable by users to the contrary 36.12% of the respondents disagree that the daily limitation is not sufficient and not acceptable by users where as 18.89% of the respondent were in determinate.

To generalize the above findings the majority of the respondents, 48.88%, with mean 3.08 and standard deviation 1.12 agreed that the E banking technology of CBE were presented conveniently for users. But 39.44% of the total respondents were against it meaning they believe that the E banking technology of CBE were not presented conveniently for users and 11.67% were indeterminate.

### 4.3 CHALLENGE AND OPPORTUNITY FOR THE EXPANSION OF E BANKING

To assess the challenges and opportunities for the expansion of E banking technologies a total of eleven questions , seven for opportunity and four for challenges ,were asked to those employees who are close to the case to measure their level of agreement or otherwise. The questions were taken from different E banking literatures and journals and the researcher himself observation as CBE staff and customized for the realities of Ethiopian banking industries and also CBE contexts. And just like the previous questions respondents were also answered every questions in this section and the result is summarized in the following separate table for opportunity and challenges

#### 4.3.1 OPPORTUNITIES FOR THE EXPANSION OF E BANKING TECHNOLOGIES

What are the existing opportunities that are in favor of the expanding of E banking technologies	SA 5	A 4	N 3	D 2	SD 1
The rapid growth of mobile user in the country	63 35%	97 53.89%	16 8.89%	2 1.11%	2 1.11%
Versatility of customer demand and preference for new technology	34 18.89%	110 61.11%	21 11.67%	13 7.22%	2 1.11%
Expansion of education in the country	29 16.11%	117 65%	21 11.67%	5 2.78%	8 4.44%
Payment of employee's salary via banking system	32 17.78%	92 51.11%	23 12.78%	23 12.78%	10 5.55%
Ability to assess the E banking trend of world class commercial banks due to globalization	39 21.67%	94 52.22%	29 16.11%	18 10%	- -
National bank proclamation to adopt the technology	21 11.67%	84 46.67%	39 21.67%	21 11.67%	15 8.32%
Existence of high competition in the banking industries	52 28.89%	94 52.22%	10 5.56%	16 8.89%	8 4.44%

**Table 4.5 Existing opportunities for the expansion of E banking**

**Source: Questionnaires**

The above table showed that the majority of employees were agreed that all listed situation could also serve as opportunities for CBE to expand the E banking technologies. For instance 88.89% of the total respondents agreed that the rapid growth of mobile users in the country create favorable situation to expand the E banking technologies but very few ,2.22%, opposes that the growth of mobile users could not be the opportunity for the expansion of the technology and the remaining were indeterminate and 58.34% of the total respondents were also agreed that the national bank proclamation for the adoption of E banking technologies was also the other favorable situations for the expansion of the technology where as 19.99 and 21.67% were against and indeterminate respectively.

In short the rapid growth of mobile users in the country, expansion of education ,versatility of customer demand and preference for new technology , competition among banks in the industry, ability to assess the E banking trend of world class commercial banks due to globalization, payment of employees salary via banking systems and national bank proclamation for the adoption of E banking technology were the existed favorable condition agreed by the respondents in the order of respondents percentage of agreement.

#### 4.3.2 CHALLENGES THAT HINDER THE EXPANSION OF E BANKING

In addition to the previously seen factors that hinders or favors E banking customers in using the technology sustainably, the under listed factors were among the challenges for the expansion and adoption of E banking technologies that were stated by different authors and the selected CBE employees put their level of agreement or disagreement as follows

What are the challenges that hinders the expansion of the technology	SA 5	A 4	N 3	D 2	SD 1
Customer resistance and reluctance to early adopt the technology	42 23.33%	94 52.22%	10 5.56%	29 16.11%	5 2.78%
Poor access and high cost of internet	39 21.67%	97 53.89%	21 11.67%	18 10%	5 13.89%
Security and cyber issues problems	16 8.89%	29 16.11%	51 28.33%	68 37.78%	16 8.89%
Education level of existing and new customers	55 30.56%	102 56.67%	10 5.55%	10 5.55%	3 1.67%

**Table 4.5 challenges for the expansion of E banking**

**Source: questionnaires**

As one see in the table above the majority of the respondents agree that the listed factors were also the challenges of E banking expansion in CBE. However only 25% of the total respondents agree that security and cyber issues were the challenges of E banking expansion in CBE but 46.67 % and 28.33% were against and indeterminate respectively .This indicates security and cyber issue problem were not the major problem in expanding the technology.

## CHAPTER FIVE

### 5 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 SUMMARY OF FINDINGS

##### 5.1.1 FINDINGS ON E BANKING CURRENT STATUS OF CBE

Concerning the E banking current status of CBE, based on the secondary data obtained from the banks MIS department, total active E banking technologies user like ATM card , mobile banking , internet banking shows progress from year to year for the past four years and up to March 31 of the current years. At the mean time the total number of E banking customers recruited from the newly opened account holders also shows progress for the past five years. Still the total transaction made by each E banking product also shows progress from year to year for the past five years, however the analysis result showed that not every E banking registered and active status user uses the technology, for instance 6.02% in 2014, 11.77% in 2015, 27.05% in 2016, 41.77% in 2017 and 32.78 % up to march 31 2018 of the total active user of mobile banking performed transaction by using mobile banking system of the bank. And 12.59% in 2014, 98.91% in 2015, 45.60% in 2016, 35.90% in 2017 and 55.81% up to march 31 of 2018 of the total active user of internet banking performed transaction by internet banking system. Similarly the ratio of the total ATM transaction to the total and active status of ATM card user for the past five years were 2:1 in 2014, 5:1 in 2015, 3:1 in 2016, 1:1 in 2017 and 5:1 up to march 2018 this implies a single card user uses it card only twice in 2014, five times in 2015, three times in 2016 one times in 2017 and five times up to march 31 2018 for performing banking transaction.

In all cases the result showed that even though the number of active E banking user number showed increment from year to year and the number of transaction made via each kind of E banking instrument showed progress, the number of transaction done via E banking products in comparison with the total user were negligible . However the objectives of expanding E banking were to increase the number of transaction made by the technology so that helps to meet the objective of creating cash less society. The result obtained from the analysis of the primary data were also consolidating the result obtained from the analysis of the secondary data, for instance as I have said above the ratio of total E banking transaction to the total active user number of E

banking were extremely low for the past five years at the mean time the majority of the respondents of the questionnaires were agreed that the E banking user recruitment method was unselective ,without awareness creation of how to use the technology, without adequate promotion . Even though the majority of the respondents agree that the E banking system of CBE were conveniently presented still the majority disagree the fact that E banking system is available all the time, the availability of coordination and cooperation between branches and other related organ at the center. Respondents also agreed that E banking customer compliant and request handling method of the bank were not in a manner that encourages users to use the technology sustainably for instance E banking transaction error were not adjusted with in reasonably short period of time, it took too long time for regained of lost or expired card, PIN, inability to work as a bank rather as specific branch of the same domain.

In general the total number of ATM card user is considerably larger than the total number of mobile banking and internet banking user and also the total number of mobile banking user were by far larger than the total number of internet banking user. However the transaction amount done by both internet and mobile banking were found promising in bringing the customer to cash less. With regard to the respondents of the primary data the researcher also notice that there were no total agreement or total disagreement for any single question raised to them this might comes from lack of uniformity in E banking operations from branch to branch and among districts.

### **5.1.2 FINDINGS OF CHALLENGES AND OPPORTUNITY FOR THE EXPANSION OF E BANKING**

Concerning the challenges and opportunities for the expansion of E banking technologies , the employees of the bank who were working at E banking and related position at the branch level were provided with some selected questions that different authors in different journals and papers considered as challenges and opportunities for the adoption and expansion of E banking technologies and the researcher himself , as a staff of CBE and closeness to the case, considered as challenges and opportunity for the expansion of the technology . There for the majority of the respondents, more than 75% were agreed the following as a challenges and opportunities:-

## **Opportunities:**

- The rapid growth of mobile user in the country
- Existence of high competition in the banking industries
- Expansion of education in the country
- Versatility of customer demand and preference for new technology
- Ability to assess the E banking trend of world class commercial banks due to globalization
- Payment of employee's salary via banking system

## **Challenges:**

- Education level of existing and new customers
- Poor access and high cost of internets
- Customer resistance and reluctance to early adopt new technology

Though different authors agree that security and cyber issues problem was the challenges of E banking expansion, for CBE cases the majority of respondents were agree that currently security and cyber issues problem is not the challenges for the expansion of E banking technologies.

## **5.2 CONCLUSION**

Based on the findings of the study the following conclusion is forwarded

- ✚ The total number of registered and active status E banking user were incremental for the past five years and the newly recruited E banking user from the newly opened account showed progress yearly for the past five years, this might due to the target base recruitment of branches for the fulfillment of their target. At the mean time total number of yearly E banking transaction and transaction amount also showed progress considerably. However the total transaction performed via any of the E banking products in comparison with the total number of registered and active status E banking user number is negligible.
- ✚ Even though very small number of actively registered E banking customers performed transaction via the technology the transaction amount is considerably bulky meaning very

large amount of money transferred via the technology this indicates that if all registered E banking customers performs transaction via the technology properly and sustainably it would bring the customers a step forward in creating cash less society.

With regard to the analysis of the primary data the result obtained consolidates the analysis result of the secondary data and concludes the following.

- ✚ Majority of the respondents agreed that target base E banking user recruitment helps for the increment of the active number of E banking user. However the registered customers were not well trained how to use the E banking products at the time of recruitment even some respondents also said that customers might not know the purpose of the registration.
- ✚ Still the majority of the respondents were also agreed that the current treatment of the bank's E banking customer complain and requests might discourage customers from use for instance adjustment of E banking transaction error were not adjusted within a reasonably short period of time , request for new PIN replacement of lost card , expired card etc did not solved as fast as possible
- ✚ Even though majority of respondents agreed that the system is conveniently presented they strongly agreed that the E banking system were not available all the time as required, power interruption for sustainably use the technology plus to this the systems has language barriers meaning it did not have language selection options

### **5.3 RECOMMENDATION**

Based on the findings the following recommendation were forwarded

- As the secondary data indicates the majority of the registered E banking active status customer did not use the technology sustainably and the frequency of using E banking technology is a maximum of five times per year for ATM transaction and used less than once within a year for the case of internet and mobile banking. So the concerned organ has to make a survey why customers did not use the product frequently once they registered for being user.
- Registering customer for being E banking user was a cost for the bank by itself there for customers did not recruit simply to fulfill the target given but to have the right user of the

technology so that customers must aware the technology before they came to bank through intensive promotion systems supported by video jockey and during recruitment at branch.

- By far of these the bank has to avoid discouraging factors in using the technology for instance delay in responding customer compliant and requests ,system and power interruption ,inability to handle any branch E banking requests and complaints as a bank.
- Develop strong coordination between branches and concerned organ at the center that operates E banking process
- Provide incentives for using the E banking products so as to encourage users
- Redesign the banks E banking product so as to have multi language options
- The majority of respondents agreed that customers resist using E banking technology due to lack of awareness of using the technology there for customers had to get sufficient explanation of the purpose and how to use the technology.
- Making frequent survey on the acceptability, reliability, validity of the banks E banking product and upgrading the technology based on the result of findings.

## REFERENCES

Muhammad Rahimuddin & Syed Asif Abbas Bukhari (2010) E banking system in Pakistan

Mahmood Shah and Steve Clarke (2009) a book on E-banking management: issues, solutions, and strategies

Ayana Gemechu Bultuma (2014) Factors Affecting Adoption of Electronic Banking System in Ethiopian Banking Industry. *Journal of Management Information System and E commerce*. Vol. 1, No. 1.

Bichanga Walter Okibo, & Ali Yattani Wario (2014) Effects of E-Banking on Growth of Customer Base in Kenyan Banks: *International Journal of Research in Management & Business Studies*. Vol. 1, issue 1.

Md. Motahar Hossain, Dilara Irin, Md. Shajedul Islam, & Sumi Saha (2013) Electronic-Banking Services: A Study on Selected Commercial Banks in Bangladesh: *Asian Business Review*, Volume 3, Number 3.

Md. Abdul Hannan Mia, Mohammad Anisur Rahman & Md. Main Uddin (January-february 2007) E-Banking: Evolution, Status and Prospect: *Journal of the institute of cost and management accountants of Bangladesh*. Volume XXXV Number 1.

Garedachew Worku (2010) Electronic -banking in Ethiopia: practices, opportunities and Challenges. *Journal of internet Banking and commerce*, 15(2):29.

Rahel Mulugeta (2015) Barriers and Benefits of Electronic Banking System in Ethiopia

Kassahun Girma (2016) Challenges and Opportunities of Electronic Banking in Ethiopian Banking Industry (Evidence from Selected Private Commercial Banks).

Mattewos Kinfe (2016) Challenges and Prospect of E-Banking in Ethiopia.

Kebede Teshale Shode (august 2017) Determinants and outcome of customer satisfaction at the commercial bank of Ethiopia: Evidence from Addis Ababa. *African Journal of Marketing management*. Vol. 9(7), pp. 107-119.

Malak Abu Jaber (2007) Readiness of the Palestine banking sector in adopting the electronic banking system.

Imola Driga ,Claudia Isac (2014) E-banking services – features, challenges and benefits Vol. 14(1) pp. 49-58.

Anuwar Abdulkadir (june 2015) Assessment of factors affecting adoption of agent banking and electronic banking in Ethiopian banking industry.

Dr. Uvaneswaran S.M, Ms Eldana Chera Kassa, Mr. Seid Muhammed Hamid (july 2017) challenges in E banking service and its impact on profitability of public sector bank of Ethiopia. International journal of marketing and financial management, volume 5 , issue 7,pp 36-46.

Worku G, Tilahun A, and Tafa MA (2016) the impact of electronic banking on customer satisfactions in Ethiopian banking industry (the case of customers of Dashen and Wegagen banks in Gonder city)

Catherine .W.Karugu (October 2014) Factors hindering consumer adoption of internet baking in Kenya commercial banks.

Elfagid Aregahegn (June 2015) The challenge and prospect of mobile and agent banking in Ethiopia.

Gadise Gezu, Tekabe Sintayehu (june 2015) Determinant of E banking service adoption among commercial banks in Ethiopia: Analysis of banks customers perspectives.

Beza Muche (June 2010) Assessment of the opportunities and challenges for the adoption of E banking service in Ethiopia.

Kinoti Faith Kangendo (October 2015) E banking strategy and performance of commercial banks in Kenya.

Bonsu, Freda among (august 2015) the contribution of electronic banking to banks' profitability and service delivery. A case study of Fidelity bank Ghana LTD.

A. Anish Kumar, S. Ariharan, D. Asir Immanuvel (2016) Internet banking – challenges and benefits vol- 1 issue-1.

Mohammad Azizul Baten, PhD and Anton Abdulbasah Kamil, PhD (2014) e banking of economical prospects in Bangladish.

Birittu quarterly magazine NO 119 (February 2015) Mobile Banking in Ethiopia: Challenges and Prospect

## **APPENDIX**

**Addis Ababa University**  
**School of Commerce**  
**Department of Project Management**

Dear Sir/Madam

I am Amakelew Getinet, MA student of project management at Addis Ababa University School of commerce. I am undertaking a project work on prospect of E banking technologies in Commercial Bank of Ethiopia, current status: challenges and opportunities for the partial fulfillment of the requirements of the degree of Master of Art in project management. The aim of this questionnaire is to identify the factors that influence the prospect of E banking technology in CBE and also identify the challenges and opportunities that favor or hinder the expansion of the technology. To this end, this questionnaire is prepared to gather relevant information.

Being a member of CBE staff your involvement is regarded as a great input to the quality of the research results since the information is collected from the concerned organ of the bank who is closely related to the case. I hope to find cooperation from you through answering the questions contained in this study. I pledge not to disclose the identity of participants to third party, as well as not use this information in any field except scientific research.

Best regards

Amakelew Getinet

**Part one: personal information**

Gender:  Male  Female

Current position:  CSO  SCSO  
 CSM  Auditor  Other

Experience in the bank:  less than a year  between one year and three year  
 Between three year and five year  above five year

**Part II. Questions regarding E-banking prospects in CBE**

Below are lists of questioners relating to E banking customer compliant handling, customer recruitment method and system convenience for use. 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 agree" to "strongly disagree".

**Key**

**SA= 5** Strongly Agree, **N= 3** Neutral, **SD= 1** Strongly Disagree

**A= 4** Agree **D= 2** Disagree

No		SA	A	N	D	SD
	<b>1. E banking User recruitment method</b>					
1.1	I believe branches target base E banking user recruitment strategy helps to have the right user of the technology					
1.2	Branches usually gave adequate explanation of how to use the technology after recruiting the customer for E banking user					
1.3	I believe new E banking customer creation and lesson giving how to use it would take a lot of time at branch					
1.4	I believe the bank is promoting the technology adequately in a manner that helps new users to understand how to use it and explains the benefit of using the technology					
1.5	CBE is encouraging the use of E banking technology via advertisement and motivate users through incentives and discounts					
1.6	I believe every registered E banking customer did not use the technology consistently because of lack of awareness of how to use it.					

1.7	Overall the current CBE E banking user recruitment method and mechanisms done to make clear of the use of the technology to customers are proper and contributes to have the right user of the technology					
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Kindly list some other trend of E banking customer recruitment you observed in your branch that you considered as a right trend or wrong way of recruitment

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No	2. Customer compliant and request handling	SA	A	N	D	SD
2.1	There are repeated and various kind of customer complaints on E banking systems of CBE					
2.2	There is a close management follow up and involvement on E banking customer complaints and request					
2.3	E banking transaction error are adjusted with in reasonably short time period					
2.4	There are adequate coordination, interaction and cooperation between your branch and other decision making centers in E-banking context					
2.5	Customer request for new PIN, replacement of damaged or expired cards and other related issues are regulated with in short period of time.					
2.6	Any CBE branch E banking customer request and complain must handled in any branch					
2.7	The bank make efforts to understand E banking user customers` requirements and complains on a regular basis so that it works on those gaps					
2.8	The bank make a survey on the acceptance of its E-banking products and services among its customers so that it is updating and modernizing the technologies based on the survey result					
2.9	Overall the banks E banking customer compliant and request handling method is proper and did not discourage customers from use					

Kindly please list some other customer complain regarding the banks E banking service of the bank you observed

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No	3. system convenience and reliability	SA	A	N	D	SD
3.1	I believe all the banks E banking system is available all the time.					
3.2	I believe the current E banking server of CBE is processing banking transaction correctly.					
3.3	All the banks E banking systems are designed in a manner which are easily understandable by users and supported by the different languages of the country that have many speakers.					
3.4	I believe the daily limitation set on every kind of E banking system for transferring and withdrawal of cash is sufficient and had acceptance by customers.					
3.5	The banks E banking system are configured so as to withdraw and transfer of cash for small amount even cash which is less than hundred birr.					
3.6	I believe the current E banking systems of CBE are not performing well due to server being down and maintenance.					
3.7	I believe the banks E banking systems requires a lot of time to be available for use.					
3.8	I believe performing banking activities via CBE E banking technologies requires a lot of time.					
3.9	Over all the banks E banking technologies are conveniently presented to users.					

Kindly also list some other issues you observed in the system convenience of the E banking technologies of CBE.

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**Part III: Questions regarding E banking challenge and opportunity**

R.N	What are the existing opportunities that are in favors of expanding E banking technologies in the country	SA	A	N	D	SD
1.	The rapid growth of Mobile user in the country.					
2.	Versatility of customer demand and preference for new technology					
3.	Expansion of higher level institutes in the county so that technology friendly generation would created.					
4.	The desire of various employers in the country to pay via banking system.					
5.	Due to globalization it is easy to assess the E banking trend of world class commercial banks.					
6.	National bank proclamation to adopt the technology.					
7.	Existence of high competition in the industry.					

Kindly please list some other opportunities you observed that are in favor of the technology

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R.N	What are the challenges that hinders the expansion of the technology	SA	A	N	D	SD
1.	Customer resistance and reluctance to early adoption of the technology.					
2.	Poor access and high cost of internet.					
3.	Security and cyber issues problems.					
4.	Education level of existing and new customers.					

List some other challenges you observed that are against the technology

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Thank you in advance for your participation and professional answers