



ST.MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

**CHALLENGES AND OPPORTUNITIES OF CARD-BANKING
PRACTICE IN COMMERCIAL BANK OF ETHIOPIA**

BY

HAREGUA TADESSE

JUNE, 2017

ADDIS ABABA, ETHIOPIA

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Acronyms

ATM	Automated Teller Machine
POS	Point of Sale
CBE	Commercial Bank of Ethiopia
EFTPOS	Electronic Funds Transfer at Point of Sale
ICT	Information and Communication Technology
IT	Information Technology
NBE	National Bank of Ethiopia
SPSS	Statistical Packages for Social Studies
E-banking	Electronic banking
AVR	Automated Voice Response
PIN	Personal Identification Number
PC	Personal Computer
ERA	Ethiopian road authority
EFT	Electronic Funds Transfer
LC	Letter of credit
WWW	World Wide Web

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Abstract

The majority of banks in Ethiopia have now implemented card-banking channels in order to provide convenient and affordable banking services. However, this effort may not bring much result especially through card-banking technology have not been well-known. The main objective of the study is identifying the challenges and opportunities of card-banking practice in Commercial Bank Ethiopia. Under these studies the researcher used primary and secondary source of data, to collect the necessary data the researcher used non probability sampling which is a judgmental sampling technique. The sample size was taken based on Taro Yamane formula. The result of the study indicated that, the major challenges faces in card- banking are, illiteracy of customers, customer resistance to change by various factors, lack of various languages that supports card-banking, lack of bond between e-payment departments, security issues, lack of legal and regulatory frame work, Lack of ICT setup and, government infrastructures facilities. On the contrary side, issues related with opportunities of card-banking expansion of electric power, ICT, road, higher institution, economic development and improvement in GDP, deposit mobilization increment and expansion of microfinance institutions are opportunities of card-banking. The study suggests the bank, having a well integrated team, give immediate service to customers and timely adjustment of refused transaction, facilitate card-banking awareness creation program on a continuous base and also the bank customizes the language to the local people.

Keywords: *Card-banking, Challenges and Opportunities.*

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The traditional and ancient society was devoid of any monetary instruments and the entire exchange of goods and merchandise was managed by the “barter system”. The use of monetary instruments as a unit of exchange replaced the barter system and money in various denominations was used as the sole purchasing power. The modern contemporary era has replaced these traditional monetary instruments from a paper and metal based currency to “plastic money” in the form of credit cards, debit cards, etc. This has resulted in the increasing use of Automated Teller Machine (ATM) all over the world (Adelowo, 2010).

The incredible growth and complexity of information and communication technology (ICT) is changing, which leads a change of the societies' ways of life in the world. The driving factor for this is the way Business is conducted now a day. The growth of the Internet and World Wide Web (WWW) has made e-banking possible.

Card-banking(e-banking) is a form of banking service where funds are transferred through an exchange of electronic signal between financial institutions, rather than exchange of cash, checks, or other negotiable instruments (Kamrul, 2009).

Card-banking greatly increases payment efficiency by reducing transaction costs and enabling trade in goods and services of very low value. They may also increase the convenience of making payments by enabling them to be made swiftly and remotely from various devices connected to global networks (Liao and Cheung, 2002).

The evolution of payments in recent history has gone from cash to cheques, and then to payment cards such as credit cards and debit cards (Batiz, 2005).

Card-banking helps to make transaction seamless, avoid caring of cash and transferring of money from one account with out with drawing of cash. Moreover e-banking facilitate trade and make shopping easy. Instead of caring cash for exchange of goods, payment with POS machine has increased consumption and the money rotated within the Banks deposit. By this the Bank gets a great opportunity to increase deposit mobilization.

Jen and Michael (2006) indicate that E-banking has created extraordinary opportunities for banks and businesses globally, in the ways they organize financial product development, delivery, and marketing via the internet.

E-banking is now a global phenomenon. It is a precious and influential tool for development, supporting growth, promoting innovation and enhancing competitiveness. A physically powerful banking industry is an essential in every country and can have a major affect in supporting economic development through competent financial services. It has had huge impact on the banking industry. Banks require developing creative solutions of how to make full use of the new technology and how to provide their customers with high online service quality. When lacking face to face interaction banks must increase the experienced online service quality among customers in order to attain and sustain competitive advantages and customer relationships.

According to Wisdom (2012) ICT, the most important factor in the future development of banking, enables banks to create sophisticated products, to have better market infrastructure and to reach geographically distant and diversified markets. Furthermore, consumers' banking needs and demands have changed significantly over the past decade. They require today more personalized banking products and services and they expect to access such services at any time and any place. In addition, customers are looking for simplicity in their day-to-day banking and those who trust their bank are more willing to consolidate their banking needs with a single financial services provider. In recent years the very nature of banking is changing. What used to happen only in branches can now happen anywhere in the world at any time and through any delivery channel a customer might choose (ATMs, POS, telephones, personal computers).

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

banking expansion and it is not aligned with the use of card-banking. In addition to this the bank has not frequently and exhaustively organized unawareness to the society as it has deemed to do so to enhance the card-banking.

The existing coverage of infrastructure in the country is potential challenge for expansion of card-banking. The society level of literacy and education has also impact on the expansion. Apart from the unmentioned challenge and problem for growth, the area is prospect for expansion and development.

Execution for expansion and growth of card-banking is not adequate as it was purported to be, like the practice of other world. So, Commercial Bank of Ethiopia demanded to exert extra effort to execute its part on the banking industry.

1.1.1 Back ground of the company

Commercial Bank of Ethiopia is a financial company owned by government of Ethiopia. It has started operation in 1963. The vision of the company is to become a world-class commercial bank by the year 2025 by providing committed to best realize stakeholders' needs through enhanced financial intermediation globally and supporting national development priorities, by deploying highly motivated, skilled and disciplined employees as well as state-of-the-art technology.

Commercial Bank of Ethiopia is the first bank in Ethiopia to introduce modern banking system to the country (ATM service for local users) in the country when it launched proprietary ATM system in 2001. Over all CBE Plays a catalytic role in the economic progress & development of the country with the wing of government. At the end of 2016, CBE has 13.3 million account holders within the country through different banking services by having 1160 branches. Now a day's the number of machines are growing quickly, with banks eager to ease access for their customers. The numbers of ATM card holders are also more than 3 million, and the total number of ATM machines 1200, and 6185 POS. There are also two ATM card production machine and 12 types of ATM cards with different features at CBE. It has strong correspondent relationship with more than 50 renowned foreign banks like Commerz Bank A.G., Royal Bank of Canada, City Bank, HSBC Bank etc... CBE has a SWIFT bilateral arrangement with more than 700 others banks across the world and Pioneer to introduce Western Union Money Transfer Services in Ethiopia early 1990s and currently working with other 20 money transfer agents like

Money Gram, Atlantic International (Bole), Xpress Money etc. Beside to this, CBE combines a wide capital base with more than 30,000 talented and committed employees (<http://www.combanketh.et>, Annual quarter meeting report of Dec, 2016 and E-payment procedure, manuals and broacher).

1.2 Statement of the Problem

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

The modern contemporary era has replaced these traditional monetary instruments from a paper and metal based currency to “plastic money” in the form of credit cards, debit cards, etc... (Adelowo, 2010).

Card-banking helps to make transaction seamless, avoid caring of cash and transferring of money from one account with out with drawing of cash. Moreover card-banking facilitate trade and make shopping easy. Instead of caring cash for exchange of goods, payment with POS machine has increased consumption and the money rotated within the banks deposit. By this the bank gets a great opportunity to increase deposit mobilization.

Even though card-banking has a lot of benefit in delivering service to customers, in Ethiopia customers were missed to enjoy with the technological advancement in banking sector which has been entertained elsewhere in Africa and the rest of the world (Gardachew, 2010).

This paper has tried to identify the challenges and opportunities of card-banking practice of Commercial Bank of Ethiopia.

1.3 Basic Research questions

1. What are the existing practices of card-banking in CBE?
2. What are the opportunities associated with card-banking in CBE?
3. What are the challenges of card-banking in CBE?

1.4 Objectives of the Study

1.4.1 General Objective of the study

The main objective of the study is to assess challenges and opportunities of card-banking practice in Ethiopia with reference to CBE.

1.4.2 Specific objective of the study

1. To assess current practice of card-banking in CBE
2. To describe the opportunities of card-banking practice in CBE.
3. To describe the challenges of card-banking in CBE.

1.5 Significance of the Study

- ❖ This paper provides some insight about card-banking practice in CBE.
- ❖ The paper can also be used as a feedback for technical managers of e-payment as well as operation managers and business managers of the banks that considered in the study regarding the e-banking practice toward their prospects and challenges.
- ❖ It can be a good indicator for managers to identify challenges of e-banking practice.
- ❖ In the increasingly competitive of bank industry in Ethiopia today, CBE needs to be use every tool available to build a positive customer service image and make a favorable impression.

Generally this study help as a stepping stone for other studies in relation with any research conducted on card-banking practice.

1.6 Scope of the study

The study analyzes the challenges and opportunities of card-banking practice in Commercial Bank Ethiopia. The study covers the bank employees in five branches and three e-payment departments.

1.7 Limitation of the study

The major limitation of this research is the study does not incorporate customer's opinion. Even though the perceptions or out looks of the customer matters in card-banking practice.

1.8 Organization of the paper

The study is divided into five chapters; Chapter One introduces the topic with the background of the study, statement of the problem, objective of the study, research questions as well as the significance of the study and organization of the study. Literature is reviewed in Chapter Two. Chapter Three deals with methodology, which includes research design, population, sample and sampling procedures, instruments, data collection procedure and data processing. Chapter Four, deals with results and findings. Chapter Five deals with summary of the findings, conclusions and possible recommendations. Finally, reference, questioner and appendix are present.

CHAPTER TWO

LITERATURE REVIEW

This chapter presents theoretical and empirical review of literature on opportunities and challenges of e- banking practice in Ethiopia.

2.1 Definition of Card-banking.

E-banking has a variety of definitions all refer to the same meaning, the following section show some of these definitions. E-banking is a form of banking service where funds are transferred through an exchange of electronic signal between financial institutions, rather than exchange of cash, checks, or other negotiable instruments (Kamrul, 2009). E-banking, also known as electronic funds transfer (EFT), is simply the use of electronic means to transfer funds directly from one account to another, rather than by check or cash (Malak, 2007).

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

Another definition of e-banking is that "E-banking is the use of a computer to retrieve and process banking data (statements, transaction details, etc.) and to initiate transactions (payments, transfers, requests for services, etc.) directly with a bank or with other financial service provider remotely via a telecommunications network". It should be noted that electronic banking is a bigger platform than just banking via the internet.

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

According to (Singh & Malhotra, 2004), E-banking can be defined as the deployment of banking services and products over electronic and communication networks directly to

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

2.2 The evolution of Card- banking

Electronic innovation in banking industry can be traced back to 1970, when the computerization of financial institutions gained momentum (Malak, 2007). However; a visible presence of this was evident to the customers since 1980, with the introduction of ATM. Innovative banking has grown since then, aided by technological developments in the telecommunications and information technology industry. The early decade of the 1990s witnessed the emergence of automated voice response (AVR) technology. By using the AVR Technology, banks could offer telephone banking facilities for financial services. With further advancements in technology, banks were able to offer services, through PC owned and operated by costumers at their convenience, through the use of intranet propriety software. The users of these services were, however, mainly corporate customers rather than retail ones (Sohail & shanmugham, 2003). The security first network bank was the first Internet banking in the world that was built in 1995 in USA. After that some famous banks introduced their internet banking one after another, such as Citibank and bank of America.

2.3 Card-banking in Ethiopian banking industry

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

Available services on Commercial Bank of Ethiopia ATMs (card-banking) are, 24 hours a day and 7 days a week.

- Cash withdrawals
- Bill payments
- Forex
- Fund transfer
- Balance inquiry, etc.

2.4 Delivery Channels of Card-Banking

2.4.1 Automated Teller Machines (ATM)

Automated Teller Machine is a computerized telecommunications device that provides the customers of a financial institution with access to financial transactions in a public space without the need for a human clerk or bank teller. On most modern ATMs, the customer is identified by inserting a plastic ATM card with a magnetic stripe or a plastic smart card with a chip that contains a unique card number and some security information, such as an expiration date. Security is provided by the customer entering a personal identification number (PIN).

ATM



(Automated Teller Machines)

Figure1 ATM Machine

2.4.2 Point-of-Sale Transfer Terminals (POS)

The system allows consumers to pay for retail purchase with a check card, a new name for debit card. This card looks like a credit card but with a significant difference. The money for the purchase is transferred immediately from account of debit card holder to the store's account (Malak, 2007).

POS, (Point of Sell Machines)



Figure 2 POS Machine

2.4.3 Debit Cards

A debit card (also known as a bank card or cheque card) is a plastic card that provides an alternative payment method to cash when making purchases. Functionally, it can be called withdrawing cash and as a check guarantee card.

In relation to CBE there are six various debit cards with varieties of benefits (Normal classic, women's, Interest Free normal, Interest free women, Gold National and Platinum national)



Figure 3 Debit cards

From the above visa cards Except Gold National card (found on No.5) and platinum National card (found on No.6) the rest 4 cards have the possibility of :-

Maximum daily cash withdrawal Birr 10,000.00 on ATM

Maximum Daily Fund Transfer Birr 100,000.00by ATM

Maximum Daily Payment purchase is Birr 200,000.00 on POS

Maximum Daily Cash advance (Cash withdrawal) at branch is up to Birr 100,000.00

Prepaid cards in relation to CBE

There are 4 international prepaid cards (Classic international, Gold international and Platinum international and Infinity International card) and 3 local prepaid gift cards (Wallet card, Shoa and Co-branded card (Jointly use commercial bank of Ethiopia and airlines logo,))



Figure 4 Prepaid cards

1. **Classic International visa card (No. 1)**...issued for all travelers high Government Officials and Managers of private firms etc...

- Maximum Daily cash withdrawal on ATM / Cash Advance on POS is up to USD 400.
- No Limit on POS Payment

2. **Gold International visa card (No. 2)**...issued for Business customers.

- Maximum Daily Cash Withdrawal on ATM / Cash Advance On POS Is Up To USD 1,000.
- No Limit on POS Payment
- Maximum Daily Payment Birr Up To the Balance onto the Card.

3. **Platinum International visa card (No. 3)** ...issued for high Government Officials and exporters.

- Maximum Daily cash withdrawal on ATM / Cash Advance on POS is up to USD 1,500.
- No Limit on POS Payment
- Maximum Daily Payment Birr up to the balance onto the card

4. Infinity International visa card (No. 4)....Issued for high Government Officials.

- No limit in all payment channels

5. Wallet local gift card (No. 5)... issued for any interested customers.

- Maximum Daily cash withdrawal Birr up to the balance onto the card
- Maximum Daily Payment /purchase Birr up to the balance onto the card
- Maximum Daily Cash advance at branch is Birr up to the balance onto the card.

6. Shoa local gift card (No. 6)Issued for any interested customers.

- Not applicable for ATM Financial Transaction
- Maximum Daily Payment /purchase Birr up to the balance onto the card
- Not applicable for Cash advance (cash withdrawal) at branch

7. Shoa local gift card (No. 6)..Issued for Sheba Miles Ethiopian Airlines travelers and CBE Customers..

- Maximum Daily cash withdrawal on ATM / Cash Advance on POS is up to USD 1,500.
- No Limit on POS Payment
- Maximum Daily Payment Birr up to the balance onto the card.

2.4.4 Credit Cards

A credit card is a small plastic card issued to users as a system of payment. It allows its holder to buy goods and services based on the holder's promise to pay for these goods and services. The issuer of the card creates a revolving account and grants a line of credit to the consumer (or the user) from which the user can borrow money for payment to a merchant or as a cash advance to the user (Mavri & Ioannou, 2006). A credit card is different from a debit card in that it does not withdraw money from the users account after every

transaction. The issuer lends money to the consumer to be paid to the merchant. Holders of a valid credit card have the authorization to

Purchase goods and services up to a predetermined amount, called a credit limit. The vendor receives essential credit card information from the cardholder, the bank issuing the card actually

Reimburses the vendor, and eventually the cardholder repays the bank through regular monthly payments. If the entire balance is not paid in full, the credit card issuer can legally charge interest fees on the unpaid portion.

2.5 Conceptual Framework

Remote banking, considered representative for the new economy, consists of electronic transactions between customers and their bank. Electronic banking, more commonly known as E-banking, is the newest delivery channel for banking services. The term had been defined in many ways by researchers mainly because electronic banking refers to several types of services through which customers can request information and execute transactions via telephone, digital Television, computer or mobile phone. Electronic banking as the distribution of information and services by banks to customers via different delivery platforms that can be used with a personal computer or other intelligent devices.

According to (Allen, 2001), e-banking refers to the supply of information or services by a bank to its customers, via a computer or television (Keivani *et al*, 2012) describes electronic banking as “an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution”. Most specialists agree that e-banking ensures 24-hour-a-day, 7-day-a-week accessibility through a type of advanced information system.

A common definition for electronic banking comes from the Basel Committee on Banking Supervision: “E-banking includes the provision of retail and small value banking products and services through electronic channels as well as large value electronic payments and other wholesale banking services delivered electronically” (BCBS, 1998). E-banking, a term used for new age banking system, represents an automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. It is a service that provides customers the opportunity

to gain access to their accounts, execute transactions, and obtain information on financial products and services through a public or private network, including the Internet. There are several terms used in the literature all referring to one form or another of electronic banking: personal computer (PC) banking, internet banking, virtual banking, online banking, web banking, home banking, phone banking, remote electronic banking, mobile banking etc., but they are often used interchangeably.

Electronic banking services have been around for quite some time in the form of automatic teller machines and telephone transactions. In more recent years, modern e-banking services such as internet and mobile banking has revolutionized banking services. The evolution of the e-banking industry can be traced to the early 1970s when banks began to look at these types of services as an alternative to some of their traditional bank functions. First, such a choice was considered appropriate since it ensures reduced costs as branches were very expensive to set up and maintain. Second, E-banking products and services like ATMs and electronic fund transfer were an important qualitative element of differentiation for banks that used them (Mobarek, 2007).

Given that banks operate in a fiercely competitive industry, their ability to differentiate themselves on the basis of price is limited. Thus, in order to remain on the market it is imperative for banks to adjust their strategies in response to changing customers' needs and developments in technology. The term e-banking became popular in the early 1980's referring to using a computer to access banking service via a phone line. E-banking first appeared in New York in 1981, where it was offered by major banks in that city, such as Citibank, Chase Manhattan, Chemical and Manufactured Hanover. Banks from the United Kingdom started to adopt the concept in 1983 where the Bank of Scotland was the first to introduce it. The early electronic banking services were basic, covering services like viewing bank statements and paying bills online without being a full transaction banking service (Shannak, 2013).

Ghazi and Khalid (2012) found that, the most important barriers for E-business growth are technological issues, such as, security risk, quality of internet and cost of implementation to be the most prominent.

2.6. Empirical studies in Ethiopia

Some related studies are conducted by different researchers in different parts of the world. However, there are limited numbers of studies conducted in Ethiopia, of them most of the studies focus on challenges to adopt the e-payment system. The aim of this study was focused on analyzing e-banking practice in Ethiopia and investigates the main challenges and opportunities of e-banking practice.

2.6.1 Challenges of Card-banking

Tekabe and Gadise (2016) studies on Challenges and Opportunities of E-payment in Ethiopia Banking Industry: With the reference of private commercial banks. The main objectives of the studies are identifying the challenges and prospects of e-banking payment in Ethiopia. Under these studies the researchers were used primary and secondary source of data to collect the necessary data the researchers were used stratified sampling and simple random sampling techniques. The sample size was taken based on Bill Godden formula. The result shows that language barriers, poor network connection, frequent power interruption and lack awareness are challenges of e-banking. In addition, IT Managers also mentions the following are among the critical challenges of e-banking.

- Lack of skilled human power
- Frequent power interruption: Lack of reliable power supply is a key challenge for smoothly running e-banking in Ethiopia.
- Lack of Unavailability of payment laws and regulations particularly for e-payment : Ethiopian current laws do not accommodate electronic contracts and signatures. Ethiopia has not yet enacted legislation that deals with e-commerce concerns including enforceability of the validity of electronic contracts, digital signatures and intellectual copyright and restrict the use of encryption technologies.
- Low level of internet penetration and poorly developed telecommunication infrastructure: Lack of infrastructure for telecommunications, Internet and online payments impede smooth development and improvements in e-commerce in Ethiopia. Most rural areas of the country, where the majority of small and medium businesses are concentrated, have no Internet facilities and thus are unable to engage in e-commerce activities.

- High rates of illiteracy: Low literacy rate is a serious impediment for the adoption of E-Banking in Ethiopia as it hinders the accessibility of banking services. For citizens to fully enjoy the benefits of E-Banking, they should not only know how to read and write but also possess basic ICT literacy.
- High cost of Internet: The cost of Internet access relative to per capita income is a critical factor. Compared to the developed countries, there are higher costs of entry into the e-commerce market in Ethiopia. These include high start-up investment costs, high costs of computers and telecommunication and licensing requirements
- Low of financial a network that links different banks (Banks are not yet automated): Most of the banking-transactions currently taking place use credit and debit cards supplied by Visa and MasterCard. For conducting e-banking, the use of credit or debit cards is mandatory thus requiring the need for specialized systems which are not currently available.
- Resistance to changes in technology among customers and staff due to: Lack of awareness on the benefits of new technologies,
 - Fear of risk,
 - Lack of trained personnel in key organizations,
 - Tendency to be content with the existing structures,
 - People may be resistant to new payment mechanism
- Cyber security issues: Cyber security is a global challenge that requires global and multi-dimensional response with respect to policy, socio-economic, legal and technological aspects. E-banking applications represent a security challenge as they highly depend on critical ICT systems that create vulnerabilities in financial institutions, businesses and potentially harm banking customers. It is imperative for banks to understand and address security concerns in order to leverage the potentials of ICTs in delivering E-banking applications. In the deployment of E-banking application, attention should be drawn to the prevention of cyber-crime (i.e. the use of ICTs by individuals to commit fraud and other crimes against banking transactions) (ITU4D, 2006).

(Ayana, 2014) studied on factors affecting adoption of Electronic banking system in Ethiopia banking industry; his objective was to identify factors that affect adoption of E-banking in the Ethiopian banking industry. The author employs Survey (questionnaire), interviews and document analysis and adopts both quantitative and qualitative (Mixed)

research approach to investigate the challenges of e-banking in Ethiopia and found that, the major barriers Ethiopian banking industry faces in the adoption of Electronic banking are: security risk, lack of trust, lack of legal and regulatory frame work, Lack of ICT infrastructure and absence of competition between local and foreign banks. The study suggests a series of measures which could be taken by the banking industry and by government to address various challenges identified. These measures include: Establishing a clear set of legal framework on the use of technology in banking industry, supporting banking industry by investing on ICT infrastructure and banks needs to be focused on technological innovation competition rather than traditional bases of retail bank competition.

Gardachew (2010) conducted research on Electronic–banking in Ethiopia practice, opportunities and challenges. The aim of his study was focused on analyzing the status of electronic banking in Ethiopia and investigates the main challenges and opportunities of implementing E-banking system. The author conducted a survey on the existing operating style of banks and identifies some challenges of using e-banking system, such as low level of internet penetration and poorly developed telecommunication infrastructure, lack of suitable legal and regulatory framework for e-commerce and e-payment, Inadequate banking system, political instabilities in neighboring countries, high rates of illiteracy, high cost of Internet, absence of financial networks that links different banks (Banks are not yet automated), frequent power interruption, Resistance to changes in technology among customers and staff due to:

- Lack of awareness on the benefits of new technologies,
- Fear of risk,
- Lack of trained personnel in key organizations,
- Tendency to be content with the existing structures,
- People may be resistant to new payment mechanisms
- Cyber security issues: are the most important challenges for development of e-banking in Ethiopia.

Wondwossen and Tsegai (2005) also studied on the challenges and opportunities of E-payments in Ethiopia; their objective was studying of E-payment practices in developing countries, Africa and Ethiopia. The authors employs interview and on site observation to

investigate challenges to E-payment in Ethiopia and found that, the main obstacles to the development of E-payments are, lack of customers trust in the initiatives, unavailability of payment laws and regulations particularly for E-payment, Lack of skilled manpower and Frequent power disruption.

As it is stated in different E-banking literature some of the problems related with of E-banking are: Low level of internet penetration and poorly developed telecommunication infrastructure. According to Jensen (2003), most countries in Africa, except South Africa, have Internet infrastructure only in their major cities.

Risks associated with electronic banking

As the usage of ATM is increasing so its openness to security threat is ascending. As the ATM technology is advancing, fraudsters are on drawing board to see how they come up with different fraud skills to beat the security. Various forms of fraud are perpetuated, ranging from; ATM card theft, Skimming, Pin theft, Card reader techniques, PIN pad techniques, force withdrawal and lot more (Adelowo, 2010).

Every aspect of business incorporates risk and potential threat, unless precaution and care taken it will have an adverse effect on the operation and create a bottle neck to perform its operation. Lack of specific laws to govern e-banking is one of the major threat bankers and customer's fears. This relates to issues such as unfair and deceptive trade practice by the supplier and unauthorized access by hackers. Larpsiriet *al.*, (2002) argued that it is not clear whether electronic documents and records are acceptable as sufficient evidence of transactions. They also pointed out that the jurisdiction of the courts and dispute resolution procedures in the case of using the e-banking for commercial purposes are important concerns.

According to Mohammed (2014), even though e-banking make availability easy and transaction smooth by saving time, minimizing the risk of carrying cash and cost of transaction on the contrary, it has its own risk like many legal and security issues and chance of fraud to be very serious concerns of electronic banking so it needs expertise and training on the area. Even if it reduce the number of head counts of the bank as the machineries and the technology perform the work of the clerk to process transaction ,the

services costs and running costs are the major threats related with e-banking .

2.6.2 Opportunities of Card-banking

Ethiopia's public and private banking systems affect the development of the national economy. The expansion of Ethiopian banking sector in support of economic development will inevitably involve greater international connections, bringing with them new and expanded correspondent banking relationships. These correspondent relationships are valuable for supporting international trade.

Tekabe and Gadise (2016) studies on Challenges and Opportunities of E-payment in Ethiopia Banking Industry: With the reference of private commercial banks. The main objectives of the studies are identifying the challenges and prospects of e-banking payment in Ethiopia. Under these studies the researchers were used primary and secondary source of data to collect the necessary data the researchers were used stratified sampling and simple random sampling techniques. The sample size was taken based on Bill Godden formula. The result shows that UNECA(United Nation Economic Commission for Africa), World Bank and UNCTAD (United Nations Conference on Trade and Development) are helping developing countries to design national e-strategies, including e-commerce, via National Information and Communication Infrastructure plans (UNCTAD (2004) and commitment of the governments: The Ethiopian government considers ICT as an indispensable tool to alleviate poverty and facilitate a state-transformation aiming an effective and efficient service delivery. It has initiated commendable ICT policy frameworks and several E-Government projects and the commercial banks in Ethiopia should take advantage of already developed best and existing software applications are the opportunities of e-banking payment in Ethiopia.

On the other hand the study conducted by Mohammed (2014) on Ethiopia banker's perception of electronic banking in Ethiopia – a case of Adama city. The researcher employs primary data (questionnaire) and the data analyzed using mean score analysis and found that e-banking is “a means to save time and minimize inconveniences” as the most and the least advantage of electronic banking whereas “Need for expertise and training and charge a high cost for services” are considered as the most and the least risk associated with electronic banking.

Government policy

Proclamation No. 592/2008 Banking Business Proclamation Page 4200 Foreign nationals or organizations fully or partially owned by foreign nationals may not be allowed to open banks or branch offices or subsidiaries of foreign banks in Ethiopia or acquire the share of Ethiopian banks.

Currently this policy gives an advantage to Ethiopian banks, as it has eliminated the would be unfair competition. If the government do allows the foreign banks to enter to the country, it will be a threat to our banks as the Ethiopian's banks are underdevelopment and didn't reach to the level of service rendered by most foreign banks. The competition will be tough and might have a potential to dissolve them. Even if the proclamation safe guard the current situation of the banks in the long run, our banks should have to plan and work towards being world class bank.

Infrastructure Development in Ethiopia

Ethiopia's electricity coverage, which was only 8 percent 25 years back, has now reached 56%. Ethiopia's total electricity generation capacity, which was 370 megawatt 25 years ago, now increased by tenfold. And also Ethiopian road authority (ERA) was again reestablished by proclamation No80/1997 with the objective to develop and administer highways, to ensure the standard of road construction and to create proper conditions on which the road network is coordinately promoted. Ethiopia's total road coverage has reached 120,000 km, attributing the success to the huge investment on road infrastructure in the past 25 years. On the other hand Ethio Telecom, Until June 2015 the number of broadband internet subscribers was 1.9 million. Mobile internet data coverage will also reportedly grow from 8.5 million to 16.9 million users, while overall internet data coverage reach 10 percent from 3.3 percentage of the end of last GTP. <http://preciseethiopia.com> May(2016).

2.7. Importance of Card-banking to banking industry

Electronic banking systems provided easy access to banking services. The interaction between user and bank has been substantially improved by deploying ATMs, Internet banking, and more recently, mobile banking (Claessens et al. 2002). Electronic banking (E-banking) reduces the transaction costs of banking for both Small and Medium Enterprises

(SMEs) and banks. SMEs need not visit banks for banking transactions, providing round the clock services. Customers prefer E-banking for conveniences, speed, round the clock services and access to the account from any parts of the world. E-banking offers benefits to banks as well. Banks can benefit from lower transaction costs as E-banking requires less paper work, less staffs and physical branches (Cheng, 2007). E-banking leads to higher level of customers satisfaction and retention (Poatoglu & Ekin, 2001). E-banking reduces loan processing time as borrowers loan application can be viewed by loan processing and loan approval authority simultaneously (Smith & Rupp, 2003). Typically, loan applications received at branch level and send to head office for approval. This documents transfer to and from branch to head office consume much time and delay loan sanction period (Riyadh et al., 2009). Beside to the above, the importance's of E-banking services are as follows:

Increased Revenues - Increased revenues as a result of offering e-channels are often reported, because of possible increases in the number of customers, retention of existing customers, and cross selling opportunities. Whether these revenues are enough for reasonable return on investment (ROI) from these channels is an ongoing debate. It has also allowed banks to diversify their value creation activities. E-banking has changed the traditional retail banking business model in many ways, for example by making it possible for banks to allow the production and delivery of financial services to be separated into different businesses. This means that banks can sell and manage services offered by other banks (often-foreign banks) to increase their revenues. This is an especially attractive possibility for smaller banks with a limited product range. E-banking has also resulted in increased credit card lending as it is a sort of transactional loan that is most easily deliverable over the internet. Electronic bill payment is also on rapid rise (Young, 2007) which suggests that electronic bill payment and other related capabilities of e-banking have a real impact on retail banking practices and rapidly expanded revenue streams.

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

Enhanced Image: E-banking helps to enhance the image of the organization as a customer focused innovative organization. This was especially true in

early days when only the most innovative organizations were implementing this channel. Despite its common availability today, an attractive banking website with a large portfolio of innovative products still enhances a bank's image. This image also helps in becoming effective at e-marketing and attracting young/professional customer base.

Efficiency- To implement e-banking, organizations often have to re-engineer their business processes, integrate systems and promote agile working practices. These steps, which are often pushed to the top of the agenda by the desire to achieve e-banking, often result in greater efficiency and agility in organizations. However, radical organizational changes are also often linked to risks such as low employee morale, or the collapse of traditional services or the customer base. In addition, Electronic banking has also helped banks in proper documentation of their records and transactions. Banks can become more efficient than they already are by providing Internet access for their customers. The Internet provides the bank with an almost paper less system.

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

Other Important Facilities- E- banking gives customer the control over nearly every aspect of managing his bank accounts. Besides the Customers can, Buy and Sell Securities, Check Stock Market Information, Check Currency Rates, Check Balances, See which checks are cleared, Transfer Money, View Transaction History and avoid going to an actual bank.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter highlights the research methodology employed to carry out this thesis, applied research approaches, research designs, sources of data, methods of data gathering & sampling techniques together with justifications for choosing one against the other. It also describes how these methods would be implemented to find answers for the purpose of the research. Finally the ethical consideration of the research mentioned.

3.1. Research Approaches

There are three approaches of business research, namely descriptive, exploratory, and explanatory. Descriptive research attempts to describe situations or phenomena concerns with facts. Exploratory research focuses on the discovery of ideas and insights by looking for new knowledge through exploration. And Explanatory research aimed to explain the cause and effect relationship between variables.

The appropriate research approach for this study is descriptive as the main objective of the paper is to assess challenges and opportunities of e-banking practice.

3.2. Research Design

According to Creswell (2009), research designs are plans and procedures that span the decision from broad assumptions to specific methods of data collection and analysis. Research design can give a general road map or plan of the research by guiding the general methodology of the study. Thus the overall road map of the research is defined by its design.

This study employs a quantitative research design. Data collected through standardized and structured questionnaire.

3.3 Source of Data

The sources of data that this research employs are both primary and secondary data. Primary data are originated by the researcher for the specific purpose of addressing the problem at hand (Malhotra, 2005). There are number of ways to collect primary data like

through questionnaires, interview, focus group discussions, etc. as deemed necessary per the research design undertaken. For this particular research primary data obtained by structured questionnaires from respondents.

Secondary data are data that are collected for some purpose other than the problem at hand (Malhotra, 2005). Secondary data are usually collected from annual report of CBE, brochures, company website (different web sites, journals, and internet were used). The researcher tried a lot to find contemporary and much related secondary information to use them as a stepping board for the research.

3.4 Methods of Data Collection

Data collected by self-administered questionnaires from employee of the bank. It is a positivist research method. It includes the low level of involvement of the researcher. A questionnaire is a series of questions asked to individuals to obtain statistically useful information about a given topic. When properly constructed and responsibly administered, questionnaires become a vital instrument by which statements can be made about specific groups or people or entire populations. Questionnaires are frequently used in quantitative and social research. The researcher used questionnaires with close-ended question to gather relevant data to the study.

Data collection Instrument

To collect primary data from the respondent's the instrument applied was a structured self-administered questionnaire with predetermined questions. The questions are close ended that give respondents to choose and rate by using Likert scale. Likert scale is applied with options ranging from strongly agree to strongly disagree with options neither agree/disagree included. Personally administered questionnaires provide high response rate, questions can be more detailed, rapport with respondents and usually a convenience.

3.5 Population and Sampling

3.5.1 Population of the study

According to Zikmund (2010), a population is any complete group that shares some set of characteristic. A sample is a subset or some part from a larger population.

The target population for the study is staff of E-payment team and employees in Addis Ababa city from five selected branches. Researcher select five south districts branches namely **Gofa sefer, kirkos, Finfine, Mexico, and HiyotAmba branch** and from three e-payment departments team of commercial bank of Ethiopia: E-payment Technical team, E-payment operational team and E-payment business team.

3.5.2 Sampling Technique

From the total population those sample selected by using non probability sampling which is Judgmental Sampling techniques because those selected employee were specially engaged in the area of E-payment.

3.5.3 Sample Size

While determining a sample size several factors need to be considered like type of sample required, time constraint, and budget, required estimation of precision and variability of elements in the population.

The justification for determining the sample size to be 200 for this particular study is: Taro Yamane (1973) formula with 95% confidence level.

$$\text{Yamane formula (1973)} \quad n = \frac{N}{1 + N(e)^2}$$

Where N = Size of population

n = Size of sampling

e = Deviation of sampling or margin of error at 5%

$$n = \frac{400}{1 + 400(0.05)^2}$$

$$n = \frac{400}{1 + 400(0.0025)}$$

$$n = \frac{400}{1 + 1}$$

$$n = \frac{400}{2}$$

$$n = \underline{200}$$

From the 200 questionnaires distributed only 187 are responded and 13 are found to be unusable. This makes the response rate 83.3%.

3.6 Methods of Data Analysis

The data collected using primary and secondary data sources analyzed summarized by using tables, figure, frequency distributions, and percentages analyzed using descriptive statistics for the general information. The data analyzed with the Statistical Package for Social Study (SPSS).

3.7 Ethical considerations

In order to keep the confidentiality of the data given by respondents, the respondents are not required to write their name and assured that their responses treated in strict confidentiality. The purpose of the study is disclosed in the introductory part of the questionnaire. The researcher tried to avoid misleading or deceptive statements in the questionnaire and the questionnaires distributed only to voluntary participants.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1. Chapter overview

This chapter deals with the analysis of the data, the results and discussion. The data has been collected based on standardized close ended questionnaire. The analysis for the questionnaire is purely quantitative. A total of 200 questionnaires have been distributed to the sample respondents and 187 collected; this makes the response rate 83.3%. In addition to this the information from secondary data like annual report of CBE, brochures, company website (different web sites, journals and internet) were used to elaborate major facts related to card-banking practice of CBE.

4.2. Reliability test

Reliability of a scale is often assessed by test –retest reliability or by internal consistency (Zikmund et al., 2010). The most commonly indicator used for computing the internal consistency is coefficient alpha. Thus; in this study reliability was ensured by computing Cronbach’s Alpha for all constructs.

The construct exhibited a Cronbach alpha value of 0.838, thus they are accepted as being reliable.

Table 1. Cronbach’s alpha

Reliability Statistics

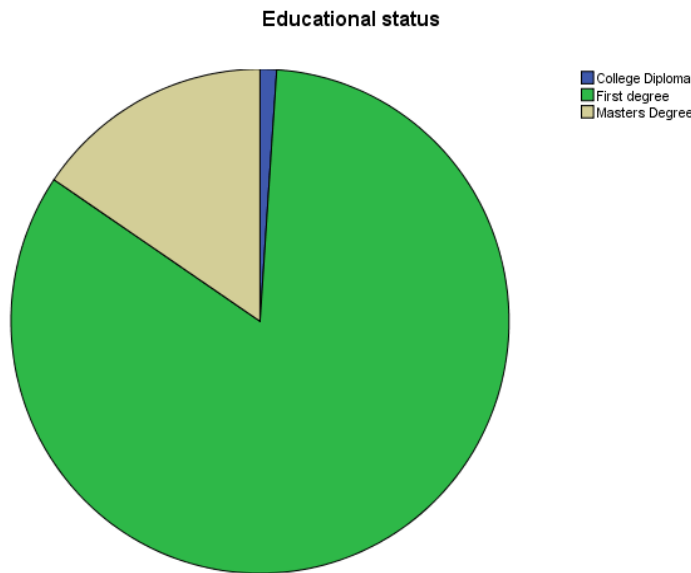
Cronbach's Alpha	N of Items
.838	28

4.3. Educational Status

Table 2 Educational Status

	Frequency	Percent	Valid Percent	Cumulative Percent
College Diploma	2	1.1	1.1	1.1
First degree	156	83.4	83.4	84.5
Masters Degree	29	15.5	15.5	100
Total	187	100	100	

Source: Result of SPSS, 2017



Source: Result of SPSS, 2017

Figure 5 Educational Status of the Respondents

As shown on figure5, 2(1.1%) are college diploma, 156(83.4%) are 1st degree holder, 29(15.5%) are masters degree holders. The mean distribution of education is 3.14, this shows majority of the employees are degree holder, this is a big opportunity for the bank to create awareness for customers on how to use card-banking and give immediate solution

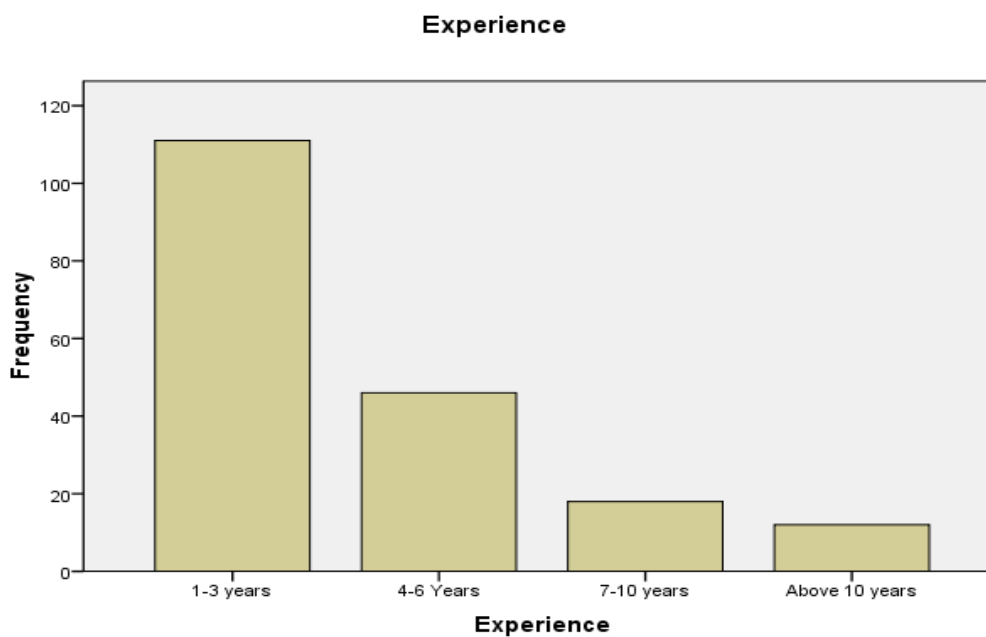
for customer's disputes. With the help of these educated workforce that bank have potential to make a change on the area.

4.4. Service year in banking sector

Table 3 Experience

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1-3 years	111	59.4	59.4	59.4
4-6 Years	46	24.6	24.6	84.0
7-10 years	18	9.6	9.6	93.6
Above 10 years	12	6.4	6.4	100.0
Total	187	100.0	100.0	

Source: Result of SPSS, 2017



Source: Result of SPSS, 2017

Figure 6 Year of experience

As shown on figure 6, 59.4% employees have an experience of 1-3 years, 24.6% 4-6 years, 9.6% 7-10 years and 6.4% of employees above 10 years. As shown on the above the figure ,majority of the workforce serve the Bank less than 3years ,on the contrary the experienced staffs are insignificant .

4.5. Customer related factors

Table 4 Customer related factors

Item		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean
Customers resistance to change for using new technology	Frequency	59	83	22	18	5	2.1
	Percent	31.60%	44.40%	11.80%	9.60%	2.70%	
Financial illiteracy of the society	Frequency	33	69	51	23	11	2.5
	Percent	17.60%	36.90%	27.30%	12.30%	5.90%	
Illiteracy of customers	Frequency	41	86	21	29	10	2.4
	Percent	21.90%	46.00%	11.20%	15.50%	5.30%	

Source: Result of SPSS, 2017

As we can see from the above table, the calculated mean scale for Item 1 is 2.1, which implies that customers resist change to new technology, this is related with the culture of the society and has become challenge for e- banking practice in CBE. Item 2 state, the mean scale for financial illiteracy of the society is 2.5, it indicates majority of respondent witnessed that the financial illiteracy of the society is high, which is bottle neck for usage & expansion of e-banking. For the last item, the calculated mean scale shows a value 2.4, large number of the existing & the potential customer of the Banks are illiterate ,this aroused from its market coverage that include urban & rural area.

4.6. From the bank internal factors

Table 5 The bank internal factor

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The low level of integrated technical, operational and business solution team	Frequency	37	72	31	32	15
	Percent	19.80%	38.50%	16.60%	17.10%	8.20%
Lack of immediate services to customers regarding captured cards and timely adjustment of refused transactions	Frequency	42	69	30	32	14
	Percent	22.50%	36.90%	16.00%	17.10%	7.50%
Lack of marketing activities to promote card-banking offering	Frequency	32	56	34	48	17
	Percent	17.10%	29.90%	18.20%	25.70%	9.10%
The low level of awareness that the Bank has created on customers how to use card banking	Frequency	42	60	23	41	21
	Percent	22.50%	32.10%	12.30%	21.90%	11.20%
The price that the Bank has charged for the card	Frequency	21	40	16	57	53
	Percent	11.20%	21.40%	8.60%	30.50%	28.30%

Source: Result of SPSS, 2017

Based on the employees' response shown on table 5, technical, operational & business teams are not integrated to each other as required & immediate service, when machine failure happened to process transaction and release card. The level of awareness given by the Bank on how to use e-banking is low, which is unfortunate for the Bank, as the Bank is pioneer for the service. In line with this per the respondents rating the market activities to promote card Banking 17.1% strongly agree with this, 29.9% agree, 25.7% disagree, 9.1% strongly disagree and the rest are indifferent. It indicates little has done so far, thus effort should be exerted on promotion & advertizing. In relation to the price that the bank charges for the card, majority of the respondent disagree with this.

4.7. Security

Table 6 Security

Item		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Lack of legal and regulatory framework in Ethiopia regarding e-payment	Frequency	22	54	48	50	13
	Percent	11.80%	28.90%	25.70%	26.70%	7.00%
Lack of customers awareness not to put pin code with the card and proper care while withdrawing money	Frequency	25	76	40	33	13
	Percent	13.40%	40.60%	21.40%	17.60%	7.00%
Frauds on card payment are easily detected because of the quality of camera	Frequency	26	37	47	49	28
	Percent	13.90%	19.80%	25.10%	26.20%	15.00%

Source: Result of SPSS, 2017

As we can see from the above table, for the first question 11.8% and 28.9% of the respondents said strongly agree and agree that the lack of legal and regulatory framework in Ethiopia regarding e-payment. This shows that legal and regulatory framework in Ethiopia regarding e-payment is loose. 54% of the respondents said, in general awareness of the card holders, on appropriate care that should be taken to keep the pin code & usage of the card to with draw money is inadequate. Item three from the above table, significant number of the respondent disagree with the statement that is the quality of camera is poor to detect fraud.

4.8. Infrastructure Factors

Table 7 Infrastructure factors

Item		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean
Lack of ICT development and low level of internet penetration	Frequency	78	59	23	12	15	2.01
	Percent	41.70%	31.60%	12.30%	6.40%	8.00%	
Electric power coverage of the country and its interruption	Frequency	69	64	15	19	20	2.2
	Percent	36.90%	34.20%	8.00%	10.20%	10.70%	
Accessibility of roads to connect cities among the country	Frequency	39	54	53	21	20	2.6
	Percent	20.90%	28.90%	28.30%	11.20%	10.70%	
Telecommunication coverage of the country	Frequency	58	68	13	29	19	2.4
	Percent	31.00%	36.40%	7.00%	15.50%	10.20%	

Source: Result of SPSS, 2017

As we can see from the above table, according to employees rating the lack of ICT development and low level of internet penetration are rated around the mean scale 2. This shows lack of ICT development and low level of internet penetration is the major challenges of e-banking (card-banking). The second question under infrastructure factors is that electric power coverage of the country and its interruption out of the total respondents 69 & 64 respondents strongly agree & agree & believes electric power coverage of the country and its interruption have significant impact on challenges of e-banking (card-banking), 19 & 20 respondents disagree & strongly disagree with the statements and the rest of the respondents are indifferent. The third question under infrastructure factors is accessibility of roads to connect cities among the country employees rated the mean scale is around 2.6. This shows that majority of the respondent neither support nor opposes the statement. The last question under infrastructure factors is telecommunication coverage of the country, the mean scale of the respondents around 2.4. This shows majority of the respondents agree with the statement. The overall mean scales of infrastructure factors are 2.3 this shows poor development of infrastructure is major challenge to e-banking practice.

Generally, as the country is under development stage and performing growth & transformation, there is no sufficient infrastructure and even with the already built structure there is so much interruption due to the undertaking activities related with electric power supply, telecom (ICT & internet) & road construction.

4.9. Technology

Table 8 Technology

Item		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Lack of various languages that supports card-banking service in CBE	Frequency	49	48	37	30	23
	Percent	26.20%	25.70%	19.80%	16.00%	12.30%
Uptime of ATM machines used by CBE is relatively high	Frequency	34	69	42	31	11
	Percent	18.20%	36.90%	22.50%	16.60%	5.90%

Source: Result of SPSS, 2017

As shown in the above table, the first question posted to employees that is lack of various languages that supports card-banking service in CBE, of the respondents 26.2% & 25.7% said strongly agree and agree, 19.8% of them neutral, 16.0% and 12.3% said disagree and strongly disagree. From the above feedback the service lacks customization of the language to the local people. Had it been with their mother tongue, it would have been easy and user friendly.

The other question was posted to employees was uptime of ATM machines used by CBE is relatively high, in this regard 18.2% employees said strongly agree, 36.9 % agree, 22.5% neutral, 16.6% and 5.9 % said disagree and strongly disagree respectively.

4.10 Questionnaires related to prospects of e-banking (card-banking)

Table 9 Prospects of e-banking (card-banking)

Item		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean
Expansion of higher institutions	Frequency	54	64	38	21	10	2.3
	Percent	28.90%	34.20%	20.30%	11.20%	5.30%	
Economic development and improvement in GDP to change the welfare of the society	Frequency	45	72	38	23	9	2.4
	Percent	24.10%	38.50%	20.30%	12.30%	4.80%	
Deposit mobilization increment	Frequency	42	85	27	24	9	2.3
	Percent	22.50%	45.50%	14.40%	12.80%	4.80%	
Increase in Loan turnover	Frequency	23	58	65	37	4	2.7
	Percent	12.30%	31.00%	34.80%	19.80%	2.10%	
Better performance of import/export in relation to LC (Letter of credit)	Frequency	26	60	63	29	9	2.7
	Percent	13.90%	32.10%	33.70%	15.50%	4.80%	
Expansions road	Frequency	43	78	43	17	6	2.3
	Percent	23.00%	41.70%	23.00%	9.10%	3.20%	
New establishment of electric power stations. (e.g. Renaissance dam)	Frequency	50	59	48	24	6	2.3
	Percent	26.70%	31.60%	25.70%	12.80%	3.20%	
ICT expansions	Frequency	49	84	31	15	8	2.2
	Percent	26.20%	44.90%	16.60%	8.00%	4.30%	
Expansion of microfinance institutions to decrease financial illiteracy of the society	Frequency	45	69	36	25	12	2.4
	Percent	24.10%	36.90%	19.30%	13.40%	6.40%	

Source: Result of SPSS, 2017

Item one on Table 9, employees is rated around the mean scale 2. This shows Banking industry operates on stiff competition & scarce of skilled human capital on the area, so the expansion of higher education has positive contribution to fill the man power shortage with this regard. Thus, we can say that opening of higher education institution is one of the major opportunities for the Bank.

The mean scale for Item number 2, respondents said that the economic development and improvement in GDP to change the welfare of the society are prospect of e-banking. Item three on the above table shows 22.5% and 45.5% are strongly agree and agree with deposit mobilization increment.

Item number four and five, the increase in loan turnover and better performance of import/export in relation to LC (Letter of credit) the calculated mean scales for the two statements are 2.7. This shows that employees neither support nor oppose the statements. Item five, 13.9% strongly agree, 32.1% agrees, 33.7% neutral, 15.5% disagree and 4.8% of them strongly disagree. Item six 23.0% and 41.7% of the respondent confirmed that expansion of road is prospects of e-banking. Item seven and eight new establishment of electric power stations and ICT expansions 50 and 49 respondents strongly agree and 59 and 84 respondents agree with them. Item number nine expansion of microfinance institutions to decrease financial illiteracy of the society 24.1% strongly agree, 36.9% agrees, 19.3% neutral, 13.4% disagree and 6.4% of them strongly disagree.

Based on the survey, expansion of higher institution, deposit mobilization increment and economic development are opportunities of e-banking.

As the country is on growth & transformation, the construction of infrastructure like road , expansion of telecom service and coverage of power supply will contribute to the progress of e-banking.

4.11 Government policy

Table 10 Government Policy

Item		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean
Government policy on blocking of foreign banks	Frequency	50	51	45	27	14	2.5
	Percent	26.70%	27.30%	24.10%	14.40%	7.50%	
NBE directives for expansions of financial institutions	Frequency	52	81	31	16	7	2.2
	Percent	27.80%	43.30%	16.60%	8.60%	3.70%	

Source: Result of SPSS, 2017

As shown in the above table, the first question posted to employees that government policy on blocking of foreign banks, of the respondents 26.7% said strongly agree and 27.3% agree, 24.1% of them neutral, 14.4% and 7.5% said disagree and strongly disagree respectively.

On the other hand NBE directives for expansions of financial institutions 27.8% employees said strongly agree, 43.3% agree, 16.6% neutral, 8.6% and 3.7% said disagree and strongly disagree respectively.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

In this final chapter, the main findings of the study summarized, conclusions are drawn from it and based on the results of the study recommendations are suggested.

5.1 Summary of the Findings

Based on the analysis and interpretation made in the previous chapter the major findings of the research work are as follows.

- ✚ The general profile of the respondent's shows that 83.4% of the respondents are degree holder; this is a big opportunity for the bank. With the help of this educated workforce that bank has potential to make a change on the area.
- ✚ In relation to year of experience, majority of the workforce serve the bank less than 3 years.
- ✚ In relation to challenges of e-banking current practice from the customer related factors, customer's resistance to change for new technology, the calculated mean scale is 2.1, which implies that customers resist change to new technology, this is related with the culture of the society and has become challenge for card-banking practice in CBE.
- ✚ In relation to financial illiteracy, on average 54.5% of the respondent agree with the statement. It indicates majority of respondent witnessed that the financial illiteracy of the society is high, which is bottle neck for usage and expansion of card-banking. For illiteracy of the customer, the calculated mean scale shows a value 2.4, large number of the existing and the potential customer of the banks are illiterate, this aroused from its market coverage that include urban & rural area.
- ✚ According to employees opinion the factors taken in to consideration in the bank internal factors on average 58.3% of the respondent agree with low level of integrated technical operational and business team, 59.4% of the respondent agree with lack of immediate service to customers and timely adjustment of refused transaction, 54.5% said that the low level of awareness on how to use card-banking

are challenges of card-banking, 47.1% of the respondent agree with low level of marketing activity to promote card-banking offerings and in relation to the price that the bank charges for the card, majority of the respondent disagree with this.

- ✚ With regards to security, 40.6% of the employees respond that lack of legal and regulatory framework in Ethiopia regarding e-payment are challenges of card-banking, 54% of the respondent agree with lack of awareness not to put pin code with card and proper care while withdrawing money. 41.2% of the respondents disagree with the statement frauds on card payment easily detected because of the quality of camera on the ATM machines.
- ✚ According to infrastructure factors, employees rating the lack of ICT development and low level of internet penetration are rated around the mean scale 2. This shows lack of ICT development and low level of internet penetration is the major challenges of card-banking.
- ✚ In relation to electric power coverage of the country and its interruption, out of the total respondents 71.1% agree and believes electric power coverage of the country and its interruption have significant impact on challenges of card-banking.
- ✚ According to accessibility of roads to connect cities among the country, 49.7% employees agree with the statement. The last question under infrastructure factors is telecommunication coverage of the country, the mean scale of the respondents around 2.4. This shows majority of the respondents agree with the statement.
- ✚ The overall mean scales of infrastructure factors are 2.3 this shows poor development of infrastructure is major challenge to e-banking practice. Generally, as the country is under development stage and performing growth and transformation, poor development of infrastructure and even with the already built structure there is so much interruption due to the undertaking activities related with electric power supply, telecom(ICT and internet) and road construction.
- ✚ In relation to technology on average 51.9% of the respondents agree with lack of various languages that supports card-banking service in CBE, from the above feedback the service lacks customization of the language to the local people. Had it been with their mother tongue, it would have been easy and user friendly.

- ✚ According to employees opinion with regard to prospects of card-banking, mean scale expansion of higher institution is 2.3. Although economic development and improvement in GDP to change the welfare of the society mean scale is 2.4 and it is opportunity to e-banking.
- ✚ Prospects of card-banking with regard to deposit mobilization increment on average 67.9% of the respondent agree with the statement. The other aspect here is increase in loan turnover and better performance of import/export in relation to letter of credit (LC) mean scale is 2.7, this shows employees neither support nor oppose respectively.
- ✚ In relation to expansion of road, electric power and ICT, majority of the respondents agree with all are prospects of card-banking. Last section for card-banking prospect, the mean scale for expansion of microfinance institution to decrease financial illiteracy of the society is 2.4.
- ✚ According to government policy, on average 54% of the respondents agree with government policy on blocking of foreign banks are prospects of e-banking, the other aspect here is NBE directives for expansion of financial institution, 71.1% of employees agree with the statement.

5.2 Conclusions

Based on the findings of the research work, the researcher outlines the following as conclusion of the research work.

The current practice and challenges of Card-banking

- ✚ In relation to customers related factors majority of the customers are uneducated and financial illiterate, also customers resist for new technology,
- ✚ From the bank internal factors ,there is low level of integrated technical, operational and business solution team, lack of immediate service to customers regarding captured cards and timely adjustment of refused transaction. Low level of awareness that the bank created on customers how to use card-banking and also lack of marketing activities to promote card-banking.
- ✚ According to security issues, there is lack of legal and regulatory framework in Ethiopia regarding e-payment, lack of customer awareness not to put pin code with

card and proper care while withdrawing money and frauds on card-banking is not detected easily because of ATM camera not show quality picture.

- ✚ As per the assessment, infrastructure is the major challenges of card-banking. Employees testify lack of ICT development and low level of internet penetration, poor electric coverage of the country, low level road to connect cities among the country and poor telecommunication coverage of the country are challenges of card-banking.
- ✚ Issues related to technology majority of the respondent agreed with lacks customization of the language to the local people that supports card-banking service in CBE.

Opportunities of card-banking

- ✚ One of the findings revealed by this research work is issues related with opportunities of card-banking, the general profile of the respondent's majority of the employees are degree holder, this is a big opportunity for the bank to create awareness for customers on how to use card-banking and give immediate solution for customer's disputes. In relation to year of experience, majority of the workforce serve the bank less than 3 years.
- ✚ The employees believe that expansion of electric power, ICT, road and higher institution are opportunities of card-banking offerings. And also economic development and improvement in GDP, deposit mobilization increment and expansion of microfinance institutions are opportunities of card-banking.
- ✚ In relation to government policy, the employees believe on blocking of foreign banks and NBE directives for expansion of financial institution are opportunity to card-banking offerings.

5.3 Recommendations

Card banking system is an important issue, because it has a great impact on the whole banking system, at the same time it is difficult and need a lot of efforts to be adopted and accepted by the banking industry. Based on the findings of the research this section gives recommendation to CBE.

Having a well integrated team will help to increase effectiveness of card-banking service, so the researcher suggests the bank to enhance team work of technical ,operational and business solution team.

The bank recommended give immediate service to customers and timely adjustment of refused transaction and prompt assistance to the customer, in order to satisfy their needs and to delight them with the card-banking service.

As the customer accepts the new technology and have a knowhow to use card-banking service, the bank prosper, so the bank is recommended to facilitate card-banking awareness creation program on a continuous base for customers by using different media. And also the bank customizes the language to the local people. Had it been with their mother tongue, it would have been easy and user friendly

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Appendix

St. Mary's University

Master of Business Administration

Questionnaire

Dear Participant

This questionnaire is designed to conduct a research for partial fulfillment of the requirements of master of art in Business Administration. The purpose of this study is to analyze the challenges and opportunities of card- banking practice in Commercial Bank of Ethiopia. Thus, you are kindly requested to take your precious time and cooperate in filling this questionnaire at your convenience.

Your honest and accurate responses will make this study more valuable. Your responses are solely meant for academic purpose and kept confidential.

Thank you in advance for your cooperation.

General instruction:-please select the appropriate choice with a tick mark (√) or write your answer on the space provided.

Haregua Tadesse haregtad@gmail.com

Section I. General Profile:

1. Educational Status

Below Diploma Masters Degree

College Diploma

First Degree

2. How long have you served in the banking sector?

1 - 3 years 7 - 10

4 - 6 years above 10 years

Section II. Questionnaires related with challenges and opportunities of e- banking practice with reference to commercial bank of Ethiopia.

Instruction: Please indicate whether you agree or disagree with each statement by ticking on the space that specify your choice from the options that ranges from “strongly agree” to “strongly disagree”

1. SA=Strongly Agree 4. D=Disagree
2. A=Agree 5. SD=Strongly Disagree
3. N=Neutral

Part One: Questionnaires related to challenges of card-banking practice

No	Variable	SA	A	N	D	SD
	I. Customer Related Factors	1	2	3	4	5
1	Illiteracy of customer					
2	Financial illiteracy of the society					
3	Customers resistance to change for using new technology					
	II. From the Bank Internal factors					
4	The price that the bank has charged for the card					
5	The low level of awareness that the bank has created on customers how to use card banking					
6	Lack of marketing activities to promote card-banking Offering					
7	Lack of immediate services to customers regarding captured cards and timely adjustment of refused transactions					
8	The low level of integrated technical, operational and business solution team					
	III. Security					
9	Frauds on card payment are easily detected because of the quality of camera					
10	Lack of customer awareness not to put pin code with the card and proper care while withdrawing money					
11	Lack of legal and regulatory framework in Ethiopia regarding e-payment					
	IV. Infrastructure Factors					
12	Telecommunication coverage of the country					
13	Accessibility of roads to connect cities among the country					
14	Electric power coverage of the country and its interruption					
15	Lack of ICT development and low level of internet penetration					
	V. Technology					
16	Uptime of ATM machines used by CBE is relatively high					
17	Lacks of various languages that supports card-banking service in CBE					

Part two: Questionnaires related to prospects of card-banking

		SA	A	N	D	SD
18	Expansion of microfinance institutions to decrease financial illiteracy of the society					
19	ICT expansions					
20	New establishment of electric power stations. (e.g Renaissance dam)					
21	Expansions road					
22	Better performance of import/export in relation to LC (Letter of credit)					
23	Increase in loan turnover					
24	Deposit mobilizations increment					
25	Economic development and improvement in GDP to change the welfare of the society					
26	Expansion of higher institutions					
	Government policy					
27	NBE directives for expansions of financial institutions					
28	Government policy on blocking of foreign banks					

Thank you in advance for your cooperation.