



ST. MARY UNIVERSITY SCHOOL OF GRADUATE STUDIES

Challenges and Opportunities of Electronic Banking in Ethiopia Banking

Industry:

In Case of Commercial Bank of Ethiopia

BY

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THESIS TITLE

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DECLARATION

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

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MR.).....

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Acronyms and Abbreviations

ATM	automatic teller machine
CBE	commercial bank of Ethiopia
ETB	Ethiopian birr
ICT	Information communication technology
NBE	National bank of Ethiopia

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Abstract

This study is conducted with Assessment of Opportunities and Challenges of E-Banking Service in CBE. The objective of this paper to assess adoption of E-banking in the commercial bank of Ethiopian banking services with respect to the challenges which can taking advantage of E-banking system and expected opportunity derived by adopting the system. To acquire the intended information the researcher use different data collection instruments like distributing close-ended questionnaire, conducting interview. The collected data was analyzed by using descriptive analysis such as tables and percentages. Among the different opportunity that initiate banks to adopt e-banking services: Improving customer services, Facilitating the work to be done fast, helping to facilitate work with minimum error, Simplifying the activity of employees of the bank in the delivery of services to customers, Enhancing the image of the bank, improving efficiency, reducing paper work, reduces queues in the banking hall, Increasing Revenues of the bank, reduction of cost, and improves relationship with customers. It also investigated the major challenges for the electronic banking services in commercial bank of Ethiopia as of infrastructural, legal and regulatory, socio-cultural, and illiteracy related challenges. To address various challenges identified on the study, the study suggests a series of measures which could be taken by government as well as commercial bank of Ethiopia.

Key words: -Banking industry, E-banking, Adoption and development of E-banking technology.

CHAPTER ONE

INTRODUCTION

As an introduction of the study, this chapter presents: background of the study, statement of the problem, research objective, research questions, research ,scope and limitation of the study, significance of the study and organization of the whole paper respectively.

1.1. Background of the Study

Information technology is considered as the key driver forth changes to take place around the world. For this reason, the traditional banking services are getting modernized by the use of electronic banking. These changes are made mainly due to the developments in information and communication technology. Due to this growth in information and communication technology, the banking industry is entering into new phenomena of unprecedented form of competition supported by modern information and communication infrastructure especially through the use of internet (Shittu, 2010).

The concepts of e-banking become popular when the banking activities and information technology are merged. When the internet facilities enter into the banking sector, the inter-bank activities are linked through internet, the concept of “Electronic Banking or Net Banking” is also introduced. Electronic banking enables a customer to do banking transactions through the bank’s website in the internet. It is more or less like bringing the bank to customer’s computer, at the place and time of customer’s choice. (Devamohan, 2002). The application of this electronic banking service has become a subject of fundamental importance and concerns to banks and indeed a prerequisite for local and global competitiveness in the banking industry. This in turn motivates banks to spend more on information technology so as to achieve maximum returns and to attract large number of clients (Husni and Noor 2011).

The rapidly growing information and communication technology is knocking the front door of every bank in the world, where Ethiopian banks would never be exceptional. Electronic Banking has been widely used in developed countries and is rapidly expanding in developing countries. In Ethiopia, however, cash is still the most dominant medium of exchange, and electronic payment systems are at an evolving stage. In the face of rapid expansion of electronic payment systems throughout the developed and the developing world, Ethiopia’s financial sector cannot remain an exception in expanding the use of the electronic banking system. In this context, the study will

attempt to trace the present status of e-banking in commercial bank of Ethiopia, visualize the opportunities and looks at the challenges faced in providing the service.

1.2. Statement of the Problem

Electronic banking is a driving force that is changing the banking industry towards a more competitive and efficient situation. Electronic banking presents both an opportunity and challenge in terms of being able to provide the convenience, efficiency, and effectiveness of electronic banking to its customers. The main driver behind electronic banking inconvenience. It is available around the clock, is extremely time-saving, and is accessible from anywhere around the world.

Electronic banking is very efficient, and has helped cut down a lot of costs, and in the case of virtual banks it has cut down almost all costs (Alam,010). But the influences of electronic banking go far beyond this. With all these benefits and opportunities that electronic banking offers to the Ethiopian banking industry, there are a number of challenges which commercial banks operating in the country are facing in the provision of electronic banking services. One of the major hindrances is lack of appropriate technological infrastructure to support the service. The financial institutions also argue with internet challenges including its congested connection, security and quality of service (Megersa, 2010). There is also lack of specialists with the adequate technological skills to build that infrastructure. It might also be a challenge to convince customer, especially those who are not familiar with using the internet, and who might find it hard to try to deal with a service that they consider confusing and frustrating.

The Ethiopian financial sector has not been studied to any great extent, from the perspective of provision of electronic banking service (Megeras, 2010). The electronic banking service is introduced in Ethiopia in the late 2005. Though the service has been in operation for the last eight years, a very limited research has been conducted on the challenges and opportunities of electronic banking in Ethiopia in general and Dashen and Nib International banks in particular. Thus, this study attempts to fill this gap and contributes to the literature on the electronic banking service in Ethiopia. Therefore, the main purpose of this study is investigating the challenges and opportunities in the implementation of electronic banking in commercial bank of Ethiopia.

1.3 Research Questions

The study has addressed the following basic research questions:-

1. What are the major challenges for adoption of E-banking service in banking industry in Ethiopia?
2. What are the benefits of adoption of E-banking service from viewpoint of the bank?
3. What are the driving forces toward the adoption and development of E-banking technology in the Ethiopian banking industry?
4. What are the existing opportunities for adoption and development of E-banking technology in Ethiopia?

1.4. Objectives of the Study

The general objective of the study is to examine the challenges and opportunities of electronic banking in commercial bank of Ethiopia.

1.4. 1 specific Objectives of the Study

The specific objectives of the study are:-

- To explore the challenges encountered in the adoption and development of E-banking in Ethiopian banking industry.
- To find benefits realized by the banks in the adoption of E-banking technology to Challenges and Opportunities of Electronic Banking in Ethiopia
- To identify the driving forces towards the adoption and development of E-banking service in Ethiopia; and
- To identify the existing opportunities for the adoption and development of E-banking service in Ethiopia.

1.5 Significance of the Study

The findings of the study will be significant as it is expected to enhance the awareness level of stakeholders with regard to the challenges and opportunities of implementing and using electronic banking in Ethiopia. In this regard, the study will have a great importance in filling the knowledge gap that exists among stakeholders. The stakeholders involved include the National Bank of Ethiopia (NBE), commercial banks, insurances, microfinance institutions, other concerned individuals and organizations. The research will also identify the technical and operational challenges of electronic banking in Ethiopia and suggests ways by which they could

be tackled. Furthermore, the outcome of the study is expected to assist other researchers for further studies in the area of electronic banking.

1.6. Scope of the Study

In pursuance of the objective of the study, the research paper focuses on examining the challenges and opportunities of electronic banking in commercial bank of Ethiopia .In order to conduct an empirical investigation in the implementation of electronic banking, the study examined the nature of electronic banking services in commercial bank of Ethiopia.

1.7. Limitation of the Study

While conducting the study, the sample is taken only the commercial banks of Ethiopia; and doesn't include the remaining commercial banks that are operating in the country. Hence the generalizations may not be applicable to them. There was challenge that respondents were not properly responded to the whole content of the questionnaire due to misunderstandings, lack of knowledge, or commitment to the subject matter. However, to minimize these problems, the researcher used interceptive interviewing technique and some of the questionnaire which are distributed to the Bank's employee was selectively distributed for those individuals the researcher believe that they have the potential, ability and capacity to respond the questioner properly.

1.8. Organization of the Thesis

This study was organized into five chapters. The first chapter is an introductory part where background of the study, statement of the research problem, objectives of the study, significance of the study, scope and limitations of the study are dealt with. Chapter two dealt with reviews of literatures. The research methodology is examined in chapter three. In the fourth chapter, the results of the study was presented and discussed in detail. Finally, the paper ended up by drawing conclusions and providing recommendations to promote e-banking services in commercial bank of Ethiopia.

CHAPTER TWO

LITERATURE REVIEW

The purpose of this chapter is to review the literature in the area of E-banking adoption and development and mainly focused on the challenges, benefits, drivers and opportunities of adopting E-banking technology. This review of literature establishes a framework, which can guide the study.

2.1 Theoretical literature reviews

2.1.1 Concept and Definition of E-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). The term of E-banking often refers to online banking/Internet banking which is the use of the Internet as a remote delivery channel for banking services. With the help of the internet, banking is no longer bound to time or geography.

E-banking is the modern delivery channel for banking services. Banks have used electronic channels for years to communicate and transact business with both domestic and international corporate customers. With the development of the Internet and the World Wide Web (WWW) the latter half of the 1990s, banks are increasingly using electronic channels for receiving instructions and delivering their products and services to their customers. This form of banking is generally referred to as e-banking or Internet banking, although the range of products and services provided by banks over the electronic channel vary widely in content, capability and sophistication. E-banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels.

The definition of e-banking varies amongst researches partially because electronic banking refers to several types of services through which bank customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, Mols, Sathye, 1998,1998,1999). For example, Burr (1996) describes it as an electronic connection between bank and customer in order to prepare, manage and control financial transactions.

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 (Sohail & Shanmugham, 2003).

2.1. 2 Evolution of E-Banking

Since the late 1990s E-Banking has developed from virtual insignificance to tens of millions of users worldwide (OECD, 2001). However, E-Banking is the product of different generations of electronic transactions. The current web-based internet is the latest of several generations of systems: Automated Teller machine (ATMs), Phone Banking, PC or House Banking. Automated teller machines (ATMs) were the first well-known machines to provide electronic access to customers where as in phone banking, users call their bank's computer system on their ordinary phone and use the phone keypad to perform banking transactions.

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.

2.1.3 Types of E-banking

1 Electronic Card

Cheques and drafts have replaced the traditional payment system with money as a medium of settlement and further development in the field has been with the advent of electronic cards. The most commonly used electronic cards include ATM cards, Debit cards, Credit cards and Smart cards. ATM card is a kind of plastic card, which allows a cardholder to withdraw money from his bank account through automated teller machine. This card can be used also for other banking services like deposit and transfer to any other account by using the ATM machine. Credit card is the modern electronic plastic card that may be used repeatedly to borrow money or buy products and services on credit. VISA, Master Card, American Express and Discover is commonly known and widely used credit cards throughout the world. The decision with which card to go depends on the comparison of the features of the specific card (not the brand). The most important features, of course, are Interest rate and Annual fees.

Debit cards are electronic plastic cards directly tied to bank account and the amount of money the cardholder can spend with it is limited to the amount of money he/she has in the bank. It is called debit card because when cardholder uses a debit card, the transaction debits (withdraws) the amount of the transaction from cardholders' account, usually on the same day (C.S.V Murthy, 2004).

2 Mobile Banking

Mobile banking (also known as M-banking or SMS banking) is a term used for performing balance checks, account transactions, payments etc. via a mobile device such as a mobile phone. Mobile banking is most often performed via SMS or the Mobile Internet but can also use special programs called clients downloaded to the mobile device. The standard package of activities that mobile banking covers are: mini-statements and checking of account history; alerts on account activity or passing of set thresholds; monitoring of term deposits; access to loan statements;

access to card statements; mutual funds/equity statements; insurance policy management; pension plan management; status on cheque, stop payment on cheque; ordering check books; balance checking in the account; recent transactions; due date of payment (functionality for stop, change and deleting of payments); PIN provision, change of PIN and reminder over the internet; blocking of (lost/stolen) cards; domestic and international fund transfers; micro-payment handling; mobile recharging; commercial payment processing; bill payment processing; peer to peer payments; withdrawal at banking agent and deposit at banking agent (Rahman, 2006).

3 Internet banking

Internet banking refers to systems that enable bank customers to get access to their accounts and general information on bank products and services through the use of banks website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations (Thulani et al, 2009). For those that have access to the internet and a computer all you need to do is proceed to your banks website and login. From there you have access to all of your accounts that you have at that bank. Transfer funds between your accounts with ease. You can also use online banking to see how much money you have in your accounts and where the money you have spent has gone.

2.1.4. Benefits of Electronic Banking

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

➤ Benefits to Customer

E-Banking offers substantial advantage to customers in the form of convenience, time saving and easy access to the banking services. The customers can transact in their account at anytime and anywhere throughout the country or outside the country. There is no time and place restriction. The customers need not visit a branch for each and every transaction and no need to wait in the long queue. By this they can save the time. The customers can avail 24 hours a day and 7 days a week access to banking services at anywhere. With the help of e-banking, the easy access to the banks will be another advantage to the customers. Thus the e-banking provides sophisticated services to the customers (Devamohan, 2002).

Dawd (2004) also argued that cardholders can be benefited from the safe and convenient nature of using cards for payment. Moreover, payment cards can make life easy for people who want to travel abroad as it minimizes the volume of cash one needs to carry and the associated risk of theft. From merchants' point of view, those merchants who accept cards enable to increase their sales as card holders prefer merchants who can accept their card for payment. Moreover, by reducing the amount of cash on hand, merchants can manage to reduce risks as well as costs related to cash management.

2. Benefits to Banks

The first benefits for the banks offering electronic banking services is better branding and better responsiveness to the market. In this competitive world, E-banking helps the banks to attract more number of customers and tackle the competition from other banks. According to Olga (2003), those banks that would offer such services would be perceived as leaders in technology implementation. Therefore, those banks that provide the service can enhance the customer satisfaction through sophisticated services.

By providing secured e-Banking services, the banks can also avoid fraudulent activities.

With the help of e-banking, banks can save time and hence they can increase the number of transactions and business (Devamohan, 2002). The other benefits of e-banking are possible to measure in monetary terms. The main goal of every company is to maximize profits for its owners and banks are not an exception. In this regard, automated e-banking services offer a perfect opportunity for maximizing profits (Olga, 2003).

3. Benefits to the Economy

As e-banking provide opportunity to banking sector to enlarge their customer base, it has a consequence to increase the volume of credit creation which in turn results in better economic condition. The positive impacts of electronic banking are immense for economic development of a nation. Some of the economic benefits of e-banking as identified by Dawd (2009) are as follow:

- Reduction of the cost for printing cash notes and its related distribution
- Enhancement of Aggregate Deposit
- Banking the un-banked
- Increasing the potential for hard currency generation

2.1.5 Challenges of Electronic Banking

Electronic banking despite its numerous benefits, there are challenges in the implementation of e-banking applications. Some of the identified challenges as revealed by previous research works include security, infrastructure, regulatory and legal issues and Socio-Cultural challenges.

1. Security

One of the biggest challenges and the basic requirements of e-banking is ensuring its security. Securing the process in e-banking involves authenticating data of the customer and banker and protecting the information to be transmitted from interception. This authentication can be done using user ID and passwords. In addition a means must be provided that prevent repudiation both by the merchant and customer once the payment process has taken place (Barnes and Hunt, 2001).

According to Worku (2010), e-banking systems must also take into account the need of multilateral security keys i.e. security needs of all participating parties in the e-banking system. An e-payment system that is not secured may not get trust from its users. Trust is one of the crucial factors to ensure the acceptance of e-banking system by users.

Martina (2005) also indicated that 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 customers. It is imperative for banks to understand and address security concerns in order to leverage the potential of ICTs in delivering e-banking applications. Software failures can also be considered as security challenges as it destroy entire portions of a network and bring huge losses. According to Tadesse and Kidan (2005), some of the major security challenges include the following.

- Disclosure of private information
- Counterfeiting
- Illegal alteration of payment data

2. Infrastructure

The other challenge for e-payment is proper infrastructure. For the effective deployment of e-banking, it is necessary to have a reliable and cost effective infrastructure that can be accessible to the majority of the population.

The most common communication infrastructure for e-banking is computer network such as Internet. Most e-banking systems use internet to communicate with their customers. The other communication infrastructure available for e-banking users is the mobile network used for mobile phone. Automating the banking activities is another prerequisite for e banking system. Closed financial network that links banks and other financial institutions is necessary. This network is usually used between banks or other financial institution for clearing and payment confirmation Alhaji Ibrahim H. (2009).

3. Regulatory and Legal Issues

National, regional or international set of laws, rules, and other regulations are important prerequisites for successful implementation of e-banking services. Some of the main elements include rules on money laundering, supervision of commercial banks and e money institutions by supervisory authorities, payment system oversight by central banks, consumer and data protection, cooperation and competition issues (European Central Bank, 2002).

4. Socio-Cultural Challenges

Cultural and historical differences in attitudes and the use of different forms of money (e.g. use of credit card in North America and use of debit cards in Europe) complicate the task of developing an electronic payment system that is applicable at international level. Difference in the degree of the required security and efficiency among peoples of different cultures and level of development aggravates the problem (Tadesse and Kidan, 2005).

According to Kumaga (2010) consumer's confidence and trust in the traditional payment system has made customers less likely to adopt new technologies. New technologies will not dominate the market until customers are confident that their privacy will be protected and adequate assurance of security is guaranteed. New technology also requires the test of time in order to earn the confidence of the people, even if it is easier to use and cheaper than older methods.

2.1.6. Opportunities of Adoption of E-Banking

The study that was conducted in Omani banks by Al-Sabbagh, I., &Molla, A. (2004) using exploratory research found that bank manager' perceptions of four concepts: perceived relative advantage, Perceived organizational performance, perceived customer/organizational relationship and perceived ease of use provided a broader understanding of e-banking adoption in the banking industry.

The first construct: Perceived Relative Advantage construct relates to the degree to which bank managers think that Internet technology might help their bank gain advantages in the industry. From the literature, three major issues emerged relating to the perception of relative advantage: convenience of services; innovative use of IT; and management of banking services Al-Sabbagh, I., &Molla, A. (2004).

The second construct: Perceived Organizational Performance is associated with how much a bank manager thinks Internet technology could improve their organizational performance. Three issues: profitability; market environment and employee productivity were utilized to explore this construct in depth. From the broad question related to profitability, two impediments are indicated: high technology investment cost and the need for economies of scale for Internet technology use are inhibiting the rate of E-banking adoption. Productivity of employees was another issue of interest. Most respondents expected that their business efficiency could be improved on the Internet Al-Sabbagh, I., &Molla, A. (2004).

The third construct: Perceived Customer/Organizational Relationship relates to how a bank manager perceives Internet technology adoption in terms of improving the relationship with their customers. In the literature, three major issues emerge related to the perception of customer/organizational relationship: customer trust, customer commitment, and customer satisfaction Al-Sabbagh, I., &Molla, A. (2004).

The final construct: Perceived Ease of Use measures how easy a bank manager believes that Internet technology is to use. The literature suggests that if technology is perceived to be easy use then the rate of adoption will increase. The research threw up three major issues related to perceived ease of use: easy to navigate, easy to learn and easy to manage. The last issue related to management of financial transactions on the Internet Al-Sabbagh, I., &Molla, A. (2004).

In general, Review of Empirical studies shows that understanding the practice of E-banking in Ethiopia, Africa and in the other worlds. The study mostly deals about the opportunities and

challenges of E-banking practice. Some studies are also deals about the critical success factors in E-banking is important for banking industries because it would potentially help them improve their strategic planning process. The main obstacles and barriers that oppose E-banking practice are the concerns of security, privacy of information and technology investment cost. Also the literature review indicates that according to the customers there are different factors that influencing the practice of E-banking such as, perceived advantages and other factors related to the services itself & how to be accepted and used by the customers, which differ from country to country, reflecting the economic and technological development in each country. This study will generally tried to assess the general practice, benefits of e-banking for the banks, customers and general economy. Problems related with the implementation of E-banking and also the practice of E-banking by customers. And also try to assess the possible intervention by the government that will promote the development of this service Ram and Sheth (1989).

2.2 History of Banking in Ethiopia

2.2.1. The Early Banking Era in Ethiopia

The history of banking in Ethiopia dates back to the beginning of 20th century. The agreement that was reached in 1905 between emperor Menilik II and Mr. McGillivray, representative of the British owned National Bank of Egypt marked the introduction of modern banking in Ethiopia (Charles, ND). Following this agreement, the first bank called “*Bank of Abyssinia*” inaugurated on February 16, 1906 by the emperor. Bank of Abyssinia was totally a foreign owned private bank whose share was sold in Addis Ababa, New York, Berlin, Paris, Rome, London, Cairo and Vienna to raise the agreed capital of £500,000 Pound sterling. Within the first 15 years of operation Bank of Abyssinia opened a branch in different parts of the country, in this regard; Harar branch was opened at the same time with inauguration of the Bank at Addis Ababa. Two years later another branch at Dire-Dawa, Gore, Dessie and transition office in Djibouti in 1920 was opened (Megersa, 2010). The governor was McGillivray and latter succeeded by H.Guldie, Miles and C.S. Collier were in charge from 1919 until the liquidation of the Bank in 1931. Since societies at that time were new for banking services, the journey of Bank of Abyssinia was costly and profit was recorded only in 1914, 1919, 1920 and from 1924 onwards.

2.2.2. The Imperial Regime

Emperor Hailesilassie, the new Emperor in 1930 continued the Menilik’s policy aiming at independence, modernization and progress of the country. Haileselassie being the board of

directors of the Bank of Abyssinia, strongly gave priority to the reform of the Ethiopian monetary and banking system due to the fact that, the only issuing bank operating in the country was owned and controlled by foreigners (Megersa, 2010). The Imperial ruling issued on August 29, 1931 and chartered the new bank as *Bank of Ethiopia* and also represented the first banking law ever passed in the country. Following this, the *Bank of Ethiopia* started operation in November 1931 with the same governor (C.S.Collier) premises of the ceased Bank of Abyssinia.

Bank of Ethiopia was purely Ethiopian institution and was the first indigenous Bank in Africa. Bank of Ethiopia with branch in Harar, Dire-Dawa, Gore, Dessie, Debre Tabor and agency offices in Gambella, Gimbi and transit office in Djibouti continued successfully until the Italian invasion in 1935. During the invasion, the Italians established the branch of their main Banks, such as Bancad'Italia, Banco Di Roma, Banco Di Napoli, and Banca Nazionale Del Lavoro and started operation in the main towns of Ethiopia. But they ceased operation immediately when Italian abolished except Banco di Roma and Banco Di Napoli which remained in Asmera. Another foreign Bank, Barclay Bank, came to Ethiopia with the British troops and organized Banking services in Addis Ababa until its withdrawal in 1943 (Megersa, 2010).

By April 15, 1943 the *State Bank of Ethiopia* commenced operation after eight months preparation. It acted as central and commercial bank, until the law of 1963 that came into force, separating the function of central and commercial bank which lead to the creation of National Bank of Ethiopia and Commercial Bank of Ethiopia. This Law also permitted foreign bank operation domestically limiting their share holding only to 49%. Both National Bank of Ethiopia and Commercial Bank of Ethiopia started operation in January 1964. The first private bank, *Addis Ababa Bank S.C* was established on Ethiopian initiative and started operation in 1964. There was also financial institution operating in the country like, the *Imperial Saving and Home Ownership Public Association (ISHOPA)* which was a Mortgage Bank (Muvva and Sisay, 2011). There was also a *Saving and Mortgage Corporation of Ethiopia*, whose aim and duties was to accept saving and trust deposit and provide agricultural loan which was replaced by *Investment Bank of Ethiopia*, and then hanged to Investment Corporation Share Company, then industrial and finally by 1970 established the *Agricultural and Development Share Company*.

2.2.3. The DergueRegim

Following the declaration of socialism in 1974, the government extended its control over the whole economy and nationalized all corporations. The three Private Banks, Addis Ababa Bank S.C, Roma and Napoli merged after nationalization in 1976 to form the second largest Bank called Addis Bank. By August 2, 1980 Addis Bank and Commercial Bank of Ethiopia merged to form the sole commercial bank in the country, Commercial Bank of Ethiopia (CBE). The Saving and Mortgage Corporation S.C and Imperial Savings and Home Ownership Public Association also merged to form the *Housing and Saving Bank* with a working capital of Birr 6 million. By 1979, Agricultural and Industrial Bank under the umbrella of National Bank of Ethiopia named as *Agricultural and Industrial Development Bank (AIDB)* was established (Megersa, 2010). In the country National Bank of Ethiopia (NBE), Commercial Bank of Ethiopia (CBE) and Agricultural and Industrial Development Bank (AIDB) were the only financial institutions enjoying monopoly in their respective areas of operation.

2.2.4. The EPRDF Regime

Following the economic policy change in 1991, financial sector reform has also taken place. The Monetary and Banking proclamation No. 83/1994 and the licensing and supervision of banking business No. 84/1994 laid down the legal basis for investment in the banking sector. Consequently, after the proclamation, Awash International Bank the first private bank was established in 1994, then Dashen Bank, Bank of Abyssinia, Wegagen Bank, United Bank and Nib International Bank were established from 1994 to 1999 which forms a group of six private banks as the first batch of private banks establishment period (Charles, ND).

As a second batch, another eight private banks were also established from 2005 to 2011 six years after of the first batch establishment which encompass Cooperative Bank of Oromia, Lion International Bank, Zemen Bank, Oromia International Bank, Buna International Bank, Berhan International Bank, Abay Bank and Addis International Bank ,according to their respective order of establishment period. Currently, there are three state owned banks (*Commercial Bank of Ethiopia, Development Bank of Ethiopia and Construction and Business Bank*) and sixteen (16) private commercial banks operating in the country.

2.3 Empirical Review

2.3.1 International study

According to MM Mahman (2008) in Bangladesh despite huge demand from the business community as well as the retail customers particularly the urban customers, electronic banking (e-banking) is still at a budding state due mainly to a number of constraints such as unavailability of a backbone network connecting the whole country; inadequacy of reliable and secure information infrastructure especially telecommunication infrastructure; sluggish ICT penetration in banking sector; insufficient legal and regulatory support for adopting e-banking and so on. The concept of e-banking includes all types of banking activities performed through electronic networks. It is the most recent delivery channel of banking services, which is used for both business-to-business and business-to-customer transactions.

However, in true sense, e-banking includes activities like payment of bills and invoices, transfer of funds between accounts, applying for a loan, payment of loan installments, sending funds to third parties via emails or internet connections regardless of where the client is located. Leow, Hock Bee (1999) state that the terms PC banking, online banking, Internet banking, telephone banking or mobile banking refers to a number of ways in which customer can access their banks without having to be physically present at the bank branch. Therefore, e-banking covers all these ways of banking business electronically. Since e-banking offers some smart services benefiting both banks and customers compared with traditional banking system, it has become imperative to make necessary room for banks to flourish e- banking. Among others, attractiveness of e-banking includes: it lowers transaction cost; provide 24- hour services; ensure increased security and control over transactions; reduces fraud risk; performs higher volume of transactions with less time; increases number and volume of value payment through banks; allows remote transactions facilities that replace physical presence of a customer in a bank branch and; increases transaction speed and accuracy. On the other hand, traditional banking is time-consuming and more costly and therefore, e-banking is replacing traditional banking all over the world.

In addition, an exploratory study that was conducted in Zimbabwe by ChituraTofara (2008) indicated that incompatibility with the existing system, cost of implementation, security concerns, lack of expertise, inadequate legislation and consumer acceptance are the major challenges for the adoption of e-banking in the country's banking industry.

Kaleem and Ahmad (2008) argued that in undertaken E-banking transactions, customers are always concerned about hackers and anti-social elements. Hacking enables the unethical hackers to penetrate the accounts of online bankers and spend their money. Availability of confidential information which is just secured by a username and password makes it vulnerable to such threats. Most of the banks try to make their sites secured by implementing latest network security software. Learn to keep your cards, documents and passwords safe, and monitor your accounts to safeguard yourself from bank fraud committed through identity theft.

E-bankers should install virus scanners and keep them and their systems up-to- date especially PC banking. They should avoid practices that easily lead to security hazards in particular they should not start up arbitrary executable attachments received via electronic e-mail. Users should check fingerprints of certificates against the fingerprints that are (should be) given by the bank on official paper documents (Claessens et al., 2002; BSP, 2006).

2.3.2 Local studies

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 and 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 (Gardachew 2010). But risks related with security issue, lack of competition among local & foreign banks and social awareness on the E-banking system were not addressed.

Gardachew (2010) conducted research on the opportunities and challenges of E-banking in Ethiopia. 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, lack of suitable legal and regulatory frame works for E-commerce and E- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks. According to Gardachew (2010), Opportunities offered by ICT through e-learning programs and Commitment of the governments on development of ICT infrastructures is considered as drivers of using Ecommerce and E-payment systems.

2.4 Knowledge Gap

Much documentation on E-banking services has been carried out elsewhere. However, in developing countries like Ethiopian, there is little evidence concerning E-banking. As far as E-banking is concerned, a lot of researches on internet banking, mobile banking and modern service delivery channels have been done in different countries in the world. As per the knowledge of the researcher only a very limited number of researches have been done on E-banking in Ethiopian Banking like that of (Ayana, 2012), (Gardachew,2010) and(Wondwossen and Tsegai, 2005). Therefore, more studies are still required to assess challenges and opportunity of E-banking in the country to identify areas in which the country lags behind their E-banking adoption and diffusion. The previous studies focused on factors influencing adoption of E-banking technology. This study focused on different factors affecting not only adoption but also development of E-banking technology in Ethiopian Banking industry. Secondly, this study also conducted following almost all type of E-banking products is being provided by almost all commercial banks in Ethiopia. This study is, therefore, intending to fill the gap by describing the challenges and opportunities of Ethiopian commercial banks in adopting and developing E-banking technology.

CHAPTER THREE

RESEARCH METHODOLOGY

Designing appropriate research methodology is a prerequisite in order to conduct a good research work. Accordingly, this chapter discusses about the methodology by which the researcher was uses to conduct this study. Thus, research design, sampling, data source and method of collection and method of data analysis, research is presented below respectively.

3.1 Research Design

Descriptive cross sectional research design was adopted for this study. According to Cooper and Schindler (2003), a descriptive study is concerned with finding out the what, where and how of a phenomenon. Descriptive research design was chosen because it enabled the researcher to generalize the findings to a larger population.

3.2 Research Approach

In order to attain the objective of the study and answer the research questions, the researcher adopted mixed research approach. The rationale of using a mixed approach is to gather data that could not be obtained by adopting a single method (Creswell, 2003). Hence, the basis of such approach helps to neutralize the limitations of applying a single approach in connection with the qualitative and quantitative nature of the research questions.

3.3 Population of the Study

The population for this study was grouped and categorized based on the type of user's and service providers. Based on this, the study has three level strata which include:

- Commercial Banks (Service providers)
- Shops, Supermarkets, hotels, gas stations (User firms)
- Individual users.

3.4 Sample Size determination of the Study

In conducting research usually required specifying sample size if the population is very large. This is due to the fact that addressing total population is difficult for many reasons such as time limitation, budget constraints and transportation. So for this study the researcher used 83samples

from the total population of 474. And the researcher use Yamane's formula to determine the sample size.

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

Where N= population size or total population

e= level of confidence error

n= number of sampling size

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

$$n = \frac{474}{1 + 474(0.1)^2}$$

$$n = \frac{474}{5.74} \dots \dots \dots n = 82.58 \approx 83.$$

Type of strata	Number of participant	n*number of participant / population size	Sample from each strata
Commercial Banks (Service providers	157	83*157/474	27
Individual users	150	83*150/474	26
Shops,	55	83*55/474	≈ 10
Supermarkets	57	83*57/474	10
, hotels	55	83*55/474	≈ 10
Total	474	83	83

Therefore the sample size of this study was 83 that are taken by using proportionate stratified sampling technique from all strata.

3.5 Sample and Sampling Technique

Stratified sampling was adopted so as to give each item in the population an equal probability of being selected. The sample was selected from the target population of 474 possible respondents by taking a proportionate ratio of the target population in each stratum. Therefore the sample size of this study was 83 respondents.

3.6 Data Source and Method of data Collection

For the purpose of this research, and in order to achieve the objectives of the study both primary and secondary sources of data was employed. Secondary data was collected from different websites, annual reports of banks, case studies, journal articles, magazines and different books that are reviewed in the area of e-banking.

Primary data was collected from bank employees, owners/operators of business entities,(shop, supermarkets ,hotels and individual users ., National Bank of Ethiopia and Ministry of Finance and Economic Development. The researcher collected the primary data in two ways- that was through personally administered questionnaire and interview methods

3.7 Data Analysis and Presentation

The questionnaire responses were first grouped into various categories. Inferential statistics was employed to analyze the data used in the study. The analyzed data was presented infrequency distributions tables, percentage and word statements for ease of understanding and analysis of the data.

3.8 Validity of data

Validity refers to the accuracy of an assessment, the ability of scale or measuring instrument to measure what it intended to measure. It allows the researcher to determine of the item on an assessment target their goal or not.

Content validity was achieved by ensuring the presence of relationship between the questionnaire and the research objective. Content validity was achieved by ensuring the relevance, clarity and objectivity of questions.

3.9 Reliability of data

Reliability refers to the degree that indicate of the dimension is free from accidental errors and offers constant data, there yielding consistent result.

Regarding reliability of instruments, the research was made sure the reliability by pre-testing the questionnaire to staffs at Ethiopian commercial bank. The researcher had given questionnaires to some group of respondents and re-testing was done.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

The general objective of the study is to examine the challenges and opportunities of electronic banking in commercial bank of Ethiopia. This chapter deals with the result, discussion or data presentation analysis and interpretation of data collected. This analysis tried to assess the challenges and opportunities of electronic banking in commercial bank of Ethiopia. The analysis of the study has conducted based on unstructured interview with concerned person in organization and self-administered questionnaires distributed to employees and customers and 83 questionnaires were distributed. But of this 75 (90%) were collected and the rests 8(10%) of questionnaires were not returned because of respondents different factors like unwillingness, time shortage and other factors.

Table 4.1 Response Rate

Description	Questionnaires	Frequency	Percentage (%)
Data collected from employees and customers	Returned	75	90%
	Unreturned	8	10%
	Total	83	100%

Sources: survey, 2021

As table 4.1 shows that the total numbers of the participants were 83 employees and customers of the commercial bank of Ethiopia; but out of 83 participants only 75 (90%) of them returned the questionnaires to the researcher and the rests 8(10%) the questionnaire were not returned because of respondents different factors like unwillingness, time shortage and other factors

4.2 Profile of Respondents

Table 4.2 profile of employees

NO	Item	Variable	Frequency	Percentage
1	Sex	Male	21	60%
		Female	14	40%
		Total	35	100%
2	Age	18-25 Yrs	12	35%
		26-36 Yrs	16	45%
		37-47 Yrs	7	20%
		>48 Yrs	0	-
		Total	35	100%
3	Education level	Diploma	0	0%
		Degree	24	66.67%
		Master	9	26.67%
		<i>PHD</i>	2	6.66%
		Total	35	100%
4	Work experience	0-2 years	9	26.67%
		3-5	14	40%
		6-10	7	20%
		>10	5	13.33%
		Total	35	100%

Sources: survey, 2021

The above table 4.2 indicates that 60% (21) of respondents are male and the rest 40% (14) of them are female. This shows that the participation of females is less than males in Ethiopian commercial bank .

In the case of classification of respondents by age of respondents 35% (12) of the total population is found in age between 18-25 Years, and followed by those respondents which are found between 26-36 years, constituting around 45% (16) of the total respondents and 20% (7) are the respondents found in age between 37-47 years. Finally, there are no respondents whose age is above 48 years. From this analysis the researcher understood commercial bank of Ethiopia have average of productive forces which is positively affecting their organizational performance.

With regard to the educational qualification 24(66.67%) of respondents were degree holders) ,9(26.67%)of respondents were master holders and 2(6.66%)of them were philosophical doctorate(PHD) holders . this implies that the majority educational status of CBE's employees is first degree holders. and the second majority educational level is second degree (master holders) and the least educational level of CBEs employees is PHD level. In relation to work experience of employees, the table shows that 26.67% respondents are below 2 years' experience; 40% of respondents the employees have an experience of between 3-5years; 20% respondents of the employees have an experience between 6-10 years, and the remaining respondents representing 13.33% of the employees has an experience of above 10 years]

Table 4.3 profile of customers

NO	Item	Variable	Frequency	Percentage
1	Sex	Male	24	60%
		Female	16	40%
		Total	40	100%
2	Age	18-25 Yrs	5	12.5%
		26-36 Yrs	13	32.5%
		37-47 Yrs	15	37.5%
		>48 Yrs	7	17.5%
		Total	40	100%
3	Education level	Diploma	18	45%
		Degree	22	55%
		Master	0	0%
		<i>PHD</i>	0	0%
		Total	40	100%
4	Work experience	0-2 years	20	50%
		3-5	15	37.5%
		6-10	5	12.5%
		>10	0	%
		Total	40	100%

Sources: survey, 2021

The above table 4.2.2 indicates that 60% (24) of respondents are male and the rest 40% (16) of them are female. This shows that the participation of male customers are is greater than females customers in Ethiopian commercial bank .

Regard to age classification of the respondents about 5(12.5%) them are aged 18-25 years ,13(32.5%) of the respondents are found 26-36 years ,about 15(37.5%) of the respondents are between 37-47 years and the rest 7(17.5%) of the respondents are aged greater than 48 years .This indicates that the majority of CBE,s customers are more adult comparing to other age group customers .

When we see the educational background of the customers about 18(45%) of the respondents are diploma holders and about 22(55%) of the respondents are degree holders. this implies that the majority customers of commercial bank have moderate educational background.

In relation to work experience of customers, the table 4.2.2 shows that 50% respondents are below 2 years' experience; 37.5% of respondents the customers have an experience of between 3-5years; 12.5% respondents of the employees have an experience between 6-10 years, and there is no respondent who has work experience above 10 years.

4.3 Descriptive Analysis

In this part the responses of the respondents for the variables indicated below were measured on five point Liker scale with: 1= strongly disagree, 2= disagree, 3 = neutral, 4= agree and 5= strongly agree. Apart from frequency and percentage, the descriptive statistics which are in the form of mean and standard deviation were presented . However, while making interpretation of the results of mean the scales were reassigned as follows to make the interpretation easy and clear.

With 5 point scales, the interval for breaking the range in measuring each variable is calculated by $5-1/5= 0.8$. It means items with scores that fall between the ranges of: 4.21 – 5.00 are considered as strongly agreed; 3.4 – 4.20 as agreed; 2.61 – 3.39 as Neutral; 1.81 – 2.6 as disagree and 1.00 – 1.8 strongly disagree. This formula is adapted from (Vichea, 2005).

4.3.1 Opportunities for adoption of e-banking service

Tables 4.3.1 Opportunities of E-banking to bank

Item	SA		A		N		DA		SD		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
<i>Reduce queues in the banking hall</i>	40	53.33%	30	40%			5	6.67%	0	0%	4.4000	.80539
<i>Reduces paper work</i>	45	60%	30	40%	0	0%	0	0%	0	0%	4.6000	.49320
<i>Increases the productivity of the bank</i>	30	40%	25	33.33%	5	6.67%	15	20%	0	0%	3.9333	1.13105
<i>Helps to perform transaction at lower cost</i>	55	73.33%	20	26.67%	0	0%	0	0%	0	0%	4.7333	.44519
<i>Increase Revenues of the bank</i>	50	66.67%	25	33.33%	0	0%	0	0%	0	0%	4.6667	.47458
<i>Enhance the image of the bank</i>	45	60%	30	40%	0	0%	0	0%	0	0%	4.6000	.49320
<i>Increase efficiency of the bank.</i>	60	80%	15	20%	0	0%	0	0%	0	0%	4.8000	.40269
<i>E-banking enables 24 hour accessibility</i>	47	62.67%	28	37.33%	0	0%	0	0%	0	0%	4.6267	.48695

<i>to the bank service</i>												
<i>Enables the bank to expand its service provision easy</i>	51	68%	24	32%	0	0%	0	0%	0	0%	4.6800	.46962
<i>Improves relationship with customers</i>	57	76%	18	24%	0	0%	0	0%	0	0%	4.7600	.42996
<i>Reduce queues in the banking hall</i>	48	64%	27	36%	0	0%	0	0%	0	0%	4.6400	.48323

Sources: survey, 2021

The above table 4.3.1 showed that the results of the items fall in the strongly agreed range. The items which ask for respondents whether e-banking *Reduce queues in the banking hall* (mean 4.4000 and SD.80539), whether e-banking *Reduces paper work* (mean 4.6000and SD.49320), whether e-banking *Increases the productivity*(mean 3.9333 and 1.13105), whether e-banking *Helps to perform transaction at lower cost*(mean 4.7333and SD.44519), whether e-banking *Increase Revenues of the bank* (mean 4.6667 and SD.47458), whether e-banking *Enhance the image of the bank*(mean 4.6000and SD.49320), whether e-banking *Increase efficiency of the bank*(mean 4.8000 and.40269), whether E-banking enables 24 hour accessibility to the bank service (mean 4.6267 and SD.48695), whether e-banking *Enables the bank to expand its service provision easy* (mean 4.6800 and SD.46962) whether e-banking *Improves relationship with customers* (4.7600 and 42996), whether e-banking *Reduce queues in the banking hall* (mean 4.6400and SD.48323).The result implies that adopting of e-banking has many opportunities to banks as the factors listed above .

Tables 4.3 .2 opportunities of E-banking to customers

Item	SA		A		N		DA		SD		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
E-banking enables 24-hour accessibility to the bank service	40	53.33%	30	40%	0	0%	5	6.67%	0	0%	4.4000	.80539
E-banking enables customers to use bank services conveniently	37	49.33%	38	50.67%	0	0%	0	0%	0	0%	4.4933	.50332
E-banking system saves time of customers	42	56%	33	44%	0	0%	0	0%	0	0%	4.5600	.49973
E-banking services enable users to complete banking activities more	35	46.67%	25	33.33%	0	0%	15	20%	0	0%	4.0667	1.13105

easily												
E-banking service increase customer satisfaction	25	33.33%	30	40%	0	0%	20	26.67%	0	0%	3.8000	1.17404

Sources: survey, 2021

The above table 4.3.2 showed that the results of the items fall in the strongly agreed and agree range. The items which ask for respondents whether E-banking enables 24-hour accessibility to the bank service (mean 4.4000 and SD.80539), whether e-banking enables customers to use bank services conveniently (*mean*4.4933 *and* *SD*.50332), whether e-banking system saves time of customers (*mean* 4.5600 and *SD*.49973), whether e-banking services enable users to complete banking activities more (*mean* 4.0667 and *SD*1.13105), whether E-banking service increase customer satisfaction (*mean* 3.8000 *and* *SD*1.17404),

Based on shown in the above table 4.3.2 the results from all respondents indicates e-banking services enables the customers to access for 24 hours services ,e-banking enables the customers to save their times ,to make easy their banking transaction, and e-banking also increase the customers satisfactions . In general the majority respondents are agree for the above listed factors .so we can conclude that e-banking service has multiple benefits and opportunities for the customers.

4.4 challenges of E-banking services

Table 4.4.1 Infrastructural Challenges

Item	SA		A		N		DA		SD		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
Frequent power interruption	29	38.67%	30	40%	0	0%	16	21.33%	0	0%	1.17404	1.12
Low level of internet penetration	34	45.33%	26	34.67%	0	0%	15	20%	0	0%	4.0533	1.12
Poorly developed telecommunication infrastructure	39	52%	36	48%	0	0%	0	0%	0	0	4.5200	.50
Broken and slow internet connection	45	60%	30	40%	0	0%	0	0%	0	0%	4.6000	.49
Limitation in ICT infrastructure	40	53.33%	25	33.33%	0	0%	10	13.33%	0	0%	4.2667	1.00

Sources: survey, 2021

As the table 4.4.1 shown that Frequent power interruption(mean3.9600 SD 1.12033) , Low level of internet penetration(mean4.0533 and SD1.12578), Poorly developed telecommunication infrastructure(4.5200and SD .50296,) Broken and slow internet connection (mean 4.6000 and SD.49320)and Limitation in ICT infrastructure(mean4.2667 and SD 1.00449) , the result implies that the above listed factors affect the smooth practice of E-banking services respectively, largest number of

respondents agreed that Low level of internet penetration and poorly developed infrastructure affect the practice of E-banking services.

This implies that ICT infrastructure in Ethiopia for internet access is not sufficient to use E-banking service. Therefore, one of the major obstacle factor identified in this study is lack of ICT infrastructure, to use E-banking service, such as internet banking, mobile banking, ATM and others

4.4.2 Illiteracy related challenges

Table 4.4.2 Illiteracy related challenges

Item	SA		A		N		DA		SD		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
Lack of educated and efficient staff in e-banking context	31	41.33%	29	38.67%	0	0%	15	20%	0	0%	4.0133	1.1088
Lack of customer awareness with E-banking product	33	44%	42	56%	0	0%	0	0%	0	0%	4.4400	.4997
Customers disability to access e-banking services	44	58.67%	31	41.33%	0	0%	0	0%	0	0%	4.5867	.4957

Customer low levels of computer literacy	33	%	42	%	0	%	0	%	0	%	4.4400	.4997
Lack of demand from customer's side	30	40%	30	40%	0	%	15	20%	0	%	4.0000	1.1028

Sources: survey, 2021

As shown on the table 4.4.2. majority of respondents are agree and strongly agree with the above listed illiteracy related challenges but there is a little bit lack of educated and efficient staff in e-banking context, lack of customer awareness with E-banking product, customer low levels of computer literacy, Lack of demand from the customer's side and customer's disability to access e-banking services is the major illiteracy related challenges that hinders adoption of e-banking services in commercial bank of Ethiopia.

4.4.3 Regulatory and legal issue challenges

Table 4.4.3 Regulatory and legal issue challenges

Item	SA		A		N		DA		SD		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
Lack of suitable legal and regulatory framework for E-banking.	32	42.67%	33	44%	0	0%	10	13.33%	0	0%	4.1600	.97315

Lack of law mandating the bank to adopt E-banking technology	25	33.33%	25	33.33%	0	0%	25	33.33%	0%	0%	3.6667	1.25562
Cross-country legal and regulatory differences	30	40%	25	33.33%	0	0%	20	26.67%	0	0%	3.8667	1.21180
Lack of sufficient government support affects customers' willingness	45	60%	30	40%	0	0%	0	0%	0	0%	4.6000	.49320

Sources: survey, 2021

As shown on the table 4.4.3. majority of respondents are strongly agree and agree on Lack of suitable legal and regulatory framework for E-banking ,cross-country legal and regulatory differences and Lack of sufficient government support to enhance customers' willingness considered as regulatory and legal issue related challenges that faces commercial bank of Ethiopia . On the other side the respondents said good law mandating the bank to adopt e banking technology. Based on the above table 4.7.3 we conclude electronic payments are not currently covered in Ethiopian legal system. Lack of such legal framework may thus hinder the introduction of cost effective modern electronic payment instrument such as ATMs, credit and debit cards, mobile/telephone/internet banking.

4.4.4 Socio-cultural related challenges

Table 4.4.4 Socio-cultural related challenges

Item	SA		A		N		DA		SD		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
Level of development of the society	28	37.33%	25	33.33%	0	0%	22	29.34%	0	0%	3.7867	1.23347
Consumer's confidence and trust in the traditional payment system	37	49.33%	23	30.67%	0	0%	15	20%	0	0%	4.0933	1.14104
Cultural and historical differences in attitudes Resistance to changes	43	57.33%	27	36%	0	0%	5	6.67%	0	0%	4.4400	.80940
Difference in efficiency	25	33.33%	35	46.67%	0	0%	15	20%	0	0%	3.9333	1.06965

among peoples of different cultures												
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Sources: survey, 2021

The result of the table 4.4 .4 implies that e-banking services are challenged by socio-cultural related problems as of level of development of society, customers trust in the traditional banking system and resistance to change. The respondents of focused group discussion also agreed that the customers have a confidence in the traditional banking system, this confidence results not to use even if, not to think to use new- e-banking products. These challenges are created as a result of low level of awareness in the society, low level of urbanization rate and high illiteracy rate of the society.

Since most of the societies are cash based society, they do not give value for electronic money to made different transaction like paper or coin money. On the bases of this concept the respondents were asked whether such culture affect the customers to use E banking practice easily.

4.5 benefit of E-banking services

Table 4.5.1 benefit of E-banking to customers

Item	SA		A		N		DA		SD		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
E-Banking offers substantial advantage to customers in the form of	46	61.33%	29	38.67%	0	0%	0	0%	0	0%	4.6133	.49027

time saving.												
The customers can transact in their account at anytime and anywhere throughout the country or outside the country.	50	66.67%	25	33.33%	0	0%	0	0%	0	0%	4.6667	.47458
There is no time and place restriction.	47	62.67%	28	37.33%	0	0%	0	0%	0	0%	4.6267	.48695
The customers can avail 24 hours a day and 7 days a week access to banking services at anywhere.	55	73.33%	20	26.67%	0	0%	0	0%	0	0%	4.7333	.44519
payment cards can make life easy for people who	30	40%	25	33.33	0	0%	20	26.67%	0	0%	3.8667	1.21180

want to travel abroad as it minimizes the volume of cash one needs to carry and the associated risk of thief													
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Sources: survey, 2021

Table 4.5.1 indicates that the majority of respondents are strongly agree and agree that E-Banking offers substantial advantage to customers in the form of time saving; The customers can transact in their account at anytime and anywhere throughout the country or outside the country; There is no time and place restriction; The customers can avail 24 hours a day and 7 days a week access to banking services at anywhere. Payment cards can make life easy for people who want to travel abroad as it minimizes the volume of cash one needs to carry and the associated risk of thief.

4.5.2 Benefit of E-banking to banks

Table 4.5.2 benefit of E-banking to banks

Item	SA		A		N		DA		SD		Me an	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
better branding to the market.	30	40%	23	30.67%	0	0%	22	29.33%	0	0%	3.8133	1.24871

E-banking helps the banks to attract more number of customers and tackle the competition from other banks	25	33.33 %	35	46.67 %	0	0%	15	20 %	0	0%	3.9333	1.06965
With the help of e-banking, banks can save time and hence they can increase the number of transactions and business	53	70.67 %	22	29.33 %	0	0%	0	0%	0	0%	4.7067	.45836
automated e-banking services offer a perfect opportunity for maximizing profits	24	32%	26	34.67 %	0	0%	25	33.33 %	0	0%	3.6533	1.24654

Sources: survey, 2021

According to table 4.5.2 about 40% and 30.67% strongly agree and agree respectively e-banking make better branding to the bank and about 29.33% disagree to the indicated factor. Most of the respondents are agree that E-banking helps the banks to attract more number of customers and tackle the competition from other banks; with the help of e-banking, banks can save time and hence they can increase the number of transactions and business; automated e-banking services offer a perfect opportunity for maximizing profits.

4.6 driving force of E-banking adoption

Table 4.6 .1 driving force of E-banking adoption

Item	SA		A		N		DA		SD		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
downsizing, gaining competitive advantage,	33	44%	30	40%	0	0%	12	16%	0	0%	4.1200	1.03923
Increasing market share	40	53.33%	22	29.33%	0	0%	13	17.33%	0	0%	4.1867	1.09906
improving bank's image	39	52%	31	41.33%	0	0%	5	6.67%	0	0%	4.3867	.80360
the government support is a strong driver fore-banking adoption	45	60%	30	40%	0	0%	0	0%	0	0%	4.6000	.49320

Sources: survey, 2021

As indicated in the table 4.6.1 above, about 44% and 40% of the respondents are strongly agree and agree that gaining competitive advantage is one of the driving force of –banking adoption and about 16% of the respondents are disagree about this factor .in general most of the

respondents believe that adoption of e banking services have the driving of downsizing, gaining competitive advantage; Increasing market share; improving bank's image and the government support is a strong driver for e-banking adoption in Ethiopia .

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

This chapter provides the key conclusion and recommendation on the issue that are raised in this research paper especially on the aspect of the challenge and opportunity of E- banking service in commercial bank of Ethiopia .

5.1 summary of finding

Based on the analysis made in chapter four the following summaries are made on the assessment of the opportunities and challenges e-banking service in Ethiopia.

- The major opportunities of adapting e-banking service to bank are Reduce queues in the banking hall ; Reduces paper work , Increases the productivity of the bank , Helps to perform transaction at lower cost , Increase Revenues of the bank, Increase Revenues of the bank, Enhance the image of the bank , Increase efficiency of the bank., E-banking enables 24 hour accessibility to the bank service , Enables the bank to expand its service provision easy , Improves relationship with customers and Reduce queues in the banking hall
- The major opportunities of adapting e-banking service to customers are enables 24-hour accessibility to the bank service, enables customers to use bank services conveniently, saves time of customers, enable users to complete banking activities more easily and increase customer satisfaction .
- In the study the researcher got that the major driving force of e-banking adoption are increasing market share, downsizing, and gaining competitive advantage, improving bank's image and the government support.
- On the other hand, the study found that; increasing speed and efficiency, productivity, reliability and accessibility of financial service and also acts as information control tool for governments are the benefits of E-banking for the Economy. E-banking system, such as ATM, mobile banking, internet banking and others are not well practiced by Ethiopian banking industry. This is due to low level of ICT infrastructure and lack of legal frameworks a, Absence of skilled man power, Cost incurred during the purchases of the software and the device.

5.2 conclusions

Based on the result of the finding in the study we conclude that adapting e-banking practice is very low in Ethiopia due to significant challenges that are low technological skilled employees ,and low literacy rate of society ,low technological infrastructure ,low regulatory and legal issues challenges ,lack of awareness using e-banking service by the societies .in other hand ,adapting e-banking service can bring many opportunities for banks as well as for customers'. The opportunities of adapting e-banking service to bank are Reduce queues in the banking hall ; Reduces paper work , Increases the productivity of the bank , Helps to perform transaction at lower cost , Increase Revenues of the bank, Increase Revenues of the bank, Enhance the image of the bank , Increase efficiency of the bank., E-banking enables 24 hour accessibility to the bank service , Enables the bank to expand its service provision easy , Improves relationship with customers and Reduce queues in the banking hall . The opportunities of adapting e-banking service to customers are enables 24-houraccessibility to the bank service, enables customers to use bank services conveniently, saves time of customers, enable users to complete banking activities more easily and increase customer satisfaction . In general, the findings of this study offer additional insights into the current E-banking situation and its implications for E-banking growth in Commercial bank of Ethiopia after the introduction of E-banking, banks get different challenges to practice E-banking effectively because of High rates of illiteracy, low level of internet penetration and poorly developed ICT infrastructure, lack of suitable legal and regulatory framework for E-banking, frequent power interruption, fear of risk and cultural related challenges of adoption e-banking.

5.3 Recommendation

As per the findings from the analysis of the collected data; the following recommendations are forwarded in order to promote and develop adoption of e-banking service in commercial bank of Ethiopia. .

- To exploit the benefit of E-banking system, banking industry operated in Ethiopia needs to familiarize their customers with the processes and benefits of the system and Branches

should pay special attention to deliver service to customers by using E- banking system, which can easily be accessible.

- Creating continuous social awareness about E-banking services by emphasizing its advantage like time saving, low cost and convinces through different forms of media advertising such as brochures, web pages etc and should build always to guarantee reliability or dependability of online transactions in order to build customer confidence & to improve the trust worthiness reputation of banks.
- The lack of legal and regulatory framework for e-banking services has discouraged banks from introducing these innovative payment instruments or where they have introduced, has put them at legal risk. Electronic payments are not clearly stated in Ethiopia legal system. Thus, government should issue laws that govern electronic payment. This helps financial service providers introduce innovative products currently in use around the world which are cost effective, efficient and safe.
- In general recommended to strengthen adoption of e-banking services in Commercial bank Ethiopia ; the government should support the electronic banking sector by investing a comprehensive regulatory and legal framework for e-commerce and e-payment, by providing incentives for financial institutions to invest rigorously on ICT and use of ecommerce.

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APPENDIX -A survey instrument (English version)

Dear Sir/Madam

The aim of this questionnaire is to Assessment of Opportunities and Challenges of E-banking service in Commercial bank of Ethiopia. The information you provide in response to the items in the questionnaire will be used as part of the data needed for a study of challenges and Opportunities of E-banking service in Commercial bank of Ethiopian. The results of the study are anticipated to supply to the understanding of the basic challenges and benefits of providing new technology in delivering of service to customers in commercial banks of Ethiopia. I would like to assure you that the information you provide will be used only for the purpose of achieving academic award. Your involvement is regarded as a great input to the quality of the research results. Hence, I believe that you will enlarge your assistance by participating in the study. Your honest and thoughtful response is invaluable. Thank you for your participation.

Section I: Demographic profile of respondents

Instruction

Please indicate the following by ticking (✓) on the spaces in front of response options:

1. **Gender :** Male

Female

2. **Age:** 18-25 26-36

37-47 above 48

3. **Educational level :**

Diploma Degree

Master PHD

4. **work experience: Work** experience

0-2 3-5

6-10 >10

Section II: study area questions

Instruction: Below are lists of statements pertaining to Adoption of E-banking. 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” .Each choices were identified by numbers ranged from 1 to 5. Note: SA- Strongly Agree, A- Agree, DA- Disagree, N- Neutral, SD- Strongly Disagree

Part one: Questionnaires related with opportunities of adopting E-banking services

1. From Bank Point of View

Item	SA	A	N	DA	SD
	1	2	3	4	5
<i>Reduce queues in the banking hall</i>					
<i>Reduces paper work</i>					
<i>Increases the productivity of the bank</i>					
<i>Helps to perform transaction at lower cost</i>					
<i>Increase Revenues of the bank</i>					
<i>Enhance the image of the bank</i>					
<i>Increase efficiency of the bank.</i>					
<i>E-banking enables 24 hour accessibility to the bank service</i>					
<i>Enables the bank to expand its service provision easy</i>					
<i>Improves relationship with customers</i>					
<i>Reduce queues in the banking hall</i>					

2. From Customer Point of View

Item	SA	A	N	DA	SD
	1	2	3	4	5
E-banking enables 24-hour accessibility to the bank service					
E-banking enables customers to use bank services conveniently					
E-banking system saves time of customers					
E-banking services enable users to complete banking activities more easily					
E-banking banking service increase customer satisfaction					

Part Two: Questionnaires related with challenges of E-banking services

1. Infrastructural Challenges

Item	SA	A	N	DA	SD
	1	2	3	4	5
Frequent power interruption					
Low level of internet penetration					
Poorly developed telecommunication infrastructure					
Brocken and slow internet conn ection					
Limitation in ICT infrastructure					

2. Illiteracy related challenges

Item	SA	A	N	DA	SD
	1	2	3	4	5
Lack of educated and efficient staff in e-banking context					
Lack of customer awareness with E-banking product					
Customers dis ability to access e-banking services					
Customer low levels of computer literacy					
Lack of demand from customer's side					

3. Regulatory and legal issue related challenges

Item	SA	A	N	DA	SD
	1	2	3	4	5
Lack of suitable legal and regulatory framework for E-banking.					
Lack of law mandating the bank to adopt E-banking technology					
Cross-country legal and regulatory differences					
Lack of sufficient government support affects customers' willingness					

4. Socio-cultural related challenges

Item	SA	A	N	DA	SD
	1	2	3	4	5
Level of development of the society					
Consumer's confidence and trust in the traditional payment system					
Cultural and historical differences in attitudes Resistance to changes					
Difference in efficiency among peoples of different cultures					

Part Three: Questionnaires related with benefit of E-banking services

1.From Customer Point of View

Item	SA	A	N	DA	SD
	1	2	3	4	5
E-Banking offers substantial advantage to customers in the form of timesaving.					
The customers can transact in their account at anytime and anywhere throughout the country or outside the country.					
There is no time and place restriction.					
The customers can avail 24 hours a day and 7 days a week access to banking services at anywhere.					
payment cards can make life easy for people who want to travel abroad as it minimizes the volume of cash one needs to carry and the associated risk of thief					

2 From Bank Point of View

Item	SA	A	N	DA	SD
	1	2	3	4	5
Better branding to the market.					
E-banking helps the banks to attract more number of customers and tackle the competition from other banks					
With the help of e-banking, banks can save time and hence they can increase the number of transactions and business					
automated e-banking services offer a perfect opportunity for maximizing profits					

Part four : Questionnaires related with driving force of E-banking adoption

Item	SA	A	N	DA	SD
	1	2	3	4	5
downsizing, gaining competitive advantage,					
Increasing market share					
improving bank's image					
the government support is a strong driver fore-banking adoption.					

APPENDIX - B

Interview Questionnaires

I. Opportunity of E-banking service

1. What are the benefits your branch gained from the adoption of ATM, internet banking and mobile banking system in the delivery of service to customers?
2. What are the advantages derived from the usage of technological tools like ATM, internet and mobile to deliver service to customers instead of using the traditional tools?
3. In your opinion what are the key factors that push to adopt ATM, internet banking and mobile banking system?
4. As Your opinion, what are the advantages / reasons that you consider of implementing E-Banking system?

II. Challenges of adopting E-banking services

1. What are the basic challenges of adopting new technological innovations like ATM, internet banking and mobile banking?
2. Do you see any social, Economic and legal challenges to the adoption of ATM, internet banking and mobile banking in your branch?
3. Do you think that government policy have impact on the adoption of E- banking system? (Please Specify/explain)