



ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

**Assessment of Challenges and Opportunities Of
E-banking In Commercial Bank of Ethiopia Bole
District; Addis Ababa Ethiopia**

By

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June 2024

Addis Ababa, Ethiopia

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**A Thesis Submitted to St Mary University of School of
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As members of the Examining Board of the final MBA, open defense, we Certify that we read and evaluated the thesis prepared by Saba Hailu and recommend that it be accepted as fulfilling the thesis requirement for the degree of Master of Business Administration.

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Statement of Declaration

I, hereby, declare that this thesis entitled “Assessment of Challenges and Opportunities of E-Banking in Commercial Bank of Ethiopia Addis Ababa” in partial fulfillment of the requirement of the Masters of Degree in Business Administration with the guidance and support of the research supervisor. This study is my original work and has not been presented for any degree or diploma program in this or any other university/institution, and all sources of materials used for the thesis has been duly acknowledged.

Declared by: Saba Hailu

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Endorsement

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

.....

.....

Advisor

Signature

St. Mary's University,

Addis Ababa June, 2024

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List of Acronym

ATM- Automatic Teller Machine

E-Banking- Electronic Banking

EFT- Electronic Fund Transfer

ICT- Information and Communication Technology

IT- Information Technology

NBE- National Bank of Ethiopia

OECD- Organization for Economic Cooperation and Development

PC- Personal Computer

POST- Point of Sale Transfer

PIN- Personal Identification Number

SMS- Short Message Service

SPSS- Statistical Package for Social Science

IMF- International Monetary Fund

PDA- Personal Digital Assistant

NGO- Non-governmental Organizations

CBE- Commercial Bank of Ethiopia

POP- Point of Purchase

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Abstract

This study assesses the challenges and opportunities of E-banking services in the commercial bank of Ethiopia. Sample size of the study consists of 171 respondents and data was gathered from 13 branches of Commercial Bank of Ethiopia. A simple random sampling method was employed to draw the sample from the population. A Quantitative research approach was employed to answer the research questions that emerged through the review of existing literature and the experiences of the researcher in respect to the E-banking service in Ethiopia. The study statistically analyzed data obtained from the survey questionnaire. The result of the study indicated that, the major challenges commercial banks of Ethiopia high cost of implementation of the E-banking system, lack of customer awareness, lack of sufficient government support, legal and regulatory differences and lack of trust. The study identified operational and services benefits from using of E-banking services such as increased productivity, generate foreign currency, increased reliability and improve customer service, increase accessibility of the bank services, The study also indicated existing opportunities for E- banking service such as Legal frame works that enforce banking industries to expand technological innovation, Commitment of the government to strengthen the banking industry, the existence of high demand, and Improvement in the banking habit of the society. The study recommended banks to facilitate proper and continuous training for their employees, increasing security for E-banking products, create deep awareness about E-banking service to the community while the government should support banking sector by facilitating sufficient ICT infrastructure development and issue clear and workable legal frameworks to ease the implementation and growth of E-banking service in commercial bank of Ethiopia selected branches.

Keywords: - Challenges, opportunities E-banking service system

CHAPTER ONE: INTRODUCTION

1.1. BACKGROUND OF THE STUDY

The financial systems of most developing countries are cash driven; meaning that monetary transactions are basically made through the exchange of banknotes and coins for goods and services. However, this trend is now giving way to a modern and sophisticated payment system where the currency and notes are converted to data, which are in turn transmitted through the telephone lines and satellite transponders. This is because of rapid technological progress and development in the financial market (Ozuru, et al. 2010; Johnson, 2005).

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 system. While E banking has improved efficiency and convenience, it has also posed several challenges to the regulators and supervisors (Uppal R. and Rimpi Jatana, 2007).

The existence of the internet can make a world without boundaries, in other words, the internet allows us to connect with anyone without having to come face to face and take a long time. The Internet is used not only for searching for information, education, communication channels, and entertainment but also it uses as a source of income for the community (Anitha, 2012).

The history of modern banks in Ethiopia was established in the 1905 reign of Emperor Menelik II , the first bank was called the Bank of Abyssinia After ten years the bank started issuing bank notes. The Commercial Bank of Ethiopia (CBE) is one of the oldest public banks established in 1942 as a State Bank. Since then, CBE has gone through different reforms and mergers coming out as one of the most reputable and biggest commercial banks in the country. It has more than 31.4 million account holders in its 1,700 plus branches stretching throughout the country and 6.4 million customers using E-banking. Its outreach to individual depositors, small and medium-scale businesses, and private and public mega-investment projects has made it the largest single bank in the country to have a significant impact on the economy of the country. CBE played a significant role as both the engine of the country's economic growth and mobilizing savings for further investment. (CBE. Environmental and Social Policy 2020).

E-banking, a term used for a 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 (Imola and Claudia, 2014)

E-banking encompasses the provision of banking services and products by banks to their customers through electronic mediums. This definition also extends to the use of information and communication technology (ICT) by banks to provide services and manage customer relationships more quickly and satisfactorily. E-banking covers both computer and telephone banking. For many banks, the inclination to e-banking services improves customer services while closely welding customers to the bank. The adoption of e-banking is also seen as a new method of expanding the customer base and to also counteract the aggressive effort made by traditional banking institutions. E-banking allows customers to inquire about information and carry out most banking services such as account balance inquiry, bill payment and inter-account transfers through the internet. E-banking, therefore, includes systems that enable financial institutions, customers, individuals and businesses to access accounts, transact business, and obtain information on financial products and services through public or private networks (Bismark et al, 2015).

Therefore, this study was designed to identify the challenges and opportunities of adopting and developing E-banking services on commercial bank of Ethiopia bole distraction Addis Ababa.

1.2. Statement of the problem

Electronic banking provides many advantages for bank and customers as well. Therefore, many banks have invested heavily in Electronic banking services. Although Electronic banking provides many benefits, many individuals still refuse this service. Since the acceptance or rejection of new technology depends on the factors that influence individuals' behavioral intention toward this technology, there is a need to determine which factors influence individuals' intention to accept new technology. Electronic banking like other new technology faces many problems associated with its acceptance (Abbasi, 2001).

The introduction of electronic banking in to the banking sector is to bring extra opportunities to the customers there by to enhance the banks 'profitability. Unless this technology brings increase customer satisfaction than the traditional brick and mortar branches customer may perceive as the same as different branches rather than a new means of delivery channels (Worku, etal,2016).

The modern e-banking methods like ATMs, Post Machine ,Debit cards, Credit cards, Tele banking, Internet banking, Mobile banking and others are new to the Ethiopian banking sector. E-banking which refers to the use of modern technology that allows customers to access banking services electronically whether it is to withdraw cash, transfer funds, to pay bills, or to obtain commercial information and advices are little knowing Ethiopia (Ayana, 2012).

All banks in Ethiopia are too late to move with technological advancement. Every bank customer is highly dissatisfied by the disappointing status of financial development in Ethiopia. Even the time wasted in traveling for search of bank branches and the long waiting time to access the account is disappointing. This is particularly because of the non-integration of branches of the same bank (Beza Muche (2010).

To sum up, the previously conducted studies in Ethiopia on the issue of E-banking by Ayana (2012), Abdulkadir (2014), Worku (2015) Henok (2015), Kassahun (2016), Meron (2017), Tamirat (2017), Hayat (2017) Yikeber (2018) and Nardos (2018) having its own gap in scope. Among the studies conducted on the title in the last three years, Hayat (2017) "E- Banking adoption in Ethiopia: A Case of Commercial Bank of Ethiopia" focused on mobile banking only as a title and Commercial bank of Ethiopia from the industry which is very limited and Tamirat Assefa (2017) on assessment of factors affecting adoption of agent banking the case of Lion International

Bank S.C. (agent perspective) which is also limited in scope and it is from the agents perspective. Even if the above researchers are conducted their research on single element of e-payment such as mobile banking, internet banking, ATM or agent banking and no attention is given over-all what e-payment in general looks like. In addition to this, the technology is dynamic and the numbers of participant banks in the growing technology are increasing, so the sector needs up-to-date studies to identify challenges and opportunities of its implementation and expansion to overcome the challenges and harness the opportunity of e-payment.

Therefore this study intended to identify the threat and the related opportunities that come with e – banking system in Ethiopia taking commercial bank of Ethiopia Addis Ababa Bole District as researched area based on the research problems discussed above.

1.3. Objectives of the Study

1.3.1 General Objective

The general objective of this study is an assessment of the opportunities and challenges of e-banking in Commercial Bank of Ethiopia (CBE).

1.3.2 Specific Objectives

- To assess the current practices and extent of the E-banking system at Commercial Bank of Ethiopia Bole District
- To examine the challenges faced by E-banking System at Commercial Bank of Ethiopia Bole District
- To identify opportunities for the adoption and growth of E-banking at the Commercial Bank of Ethiopia Bole District
- To determine the driving forces towards the adoption of e-banking at the Commercial Bank of Ethiopia Bole District

1.4 Research Questions

The basic research questions of the study were:

- What looks like the current practices and extent of e-banking services in commercial bank of Ethiopia Bole District?

- What are the challenges that affect the e-banking system of commercial banks of Ethiopia Bole District?
- What are the opportunities for adoption and growth of e-banking in commercial bank of Ethiopia Bole District?
- What are the driving forces towards the adoption of e-banking service in commercial bank of Ethiopia Bole District?

1.4 Significance of the Study

The outcomes and results of this research have potential value to the institution in terms of investigating the different challenges and opportunities for the adoption of this service delivery channel and by recommending solutions for the identified problems, this study will help banks to benefit from the adoption of this technology to provide efficient and effective financial service for its customer and strengthen them. It helps to fill significant knowledge gaps about E-banking landscape in Ethiopia; thereby it will give business insight to researchers and students about the problem and stimulate further investigation of the issue.

1.5 Scope of the Study

The study focused only on the challenges and opportunities of E-banking in the commercial bank of Ethiopia. The studies were conducted at thirteen selected commercial banks in Bole District Addis Ababa. It does not cover the challenges on the remaining one hundred seven branches of commercial banks of Ethiopia.

The investigation based itself on qualitative and quantitative data generated through administering a survey questionnaire and document examination. Primary and secondary data sources considered for the purpose included: officials and other employees of the bank and relevant documents produced by CBE and other organizations or institutions.

1.6 Limitation of the Study

While conducting the study, the sample is taken only from thirteen branches of commercial banks of Ethiopia in Addis Ababa Bole District and doesn't include the remaining branches of commercial banks of Ethiopia in Addis Ababa. Hence the generalizations may not be applicable to them.

In addition, the study focused on investigating the challenges and opportunities of E-banking faced by the bank side implementation in commercial banks of Ethiopia.

1.7 Organization of the Study

This paper consists of five chapters with different sections and sub-sections. Chapter one presents the introduction for the main part of the paper, and chapter two states the theoretical and empirical literature review about the E-banking services in some countries. Chapter three discusses research

methodology. Chapter four focuses on results and discussions. Finally, Chapter Five gives a conclusion and recommendation for the study.

CHAPTER TWO:

LITERATURE REVIEW

This chapter contains both the theoretical and empirical review of the study. The theoretical framework includes introduction to e-banking, definition of e-banking, evolution of e-banking, types of e-banking, importance of e-banking, and banking in Ethiopia respectively. In addition, it also includes empirical review of the study from different researchers in different countries.

2.1 Theoretical Review

2.1.1 Introduction to E-banking

The definition of e-banking varies slightly amongst researchers, e-banking can be defined as the use of electronic channels for banking products and services and is subset of electronic finance which includes several delivery channels such as the internet, wireless communication networks, ATM, telephone banking and other transactional electronic banking mediums. The term transactional e-banking is also used to distinguish the use of banking services from the mere provision of information. According to the IMF (2002)

Electronic 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 cheque or cash. Electronic banking (e-banking) has changed the face of commercial banking in recent times by bridging geographical, industrial, and regulatory gaps as well as creating innovative products and services and more market opportunities for banks and customers (Ayuba and Aliyu (2015). According to Daniel defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery plat forms that can be used with different terminal devices such as personal computers and mobile phone with browser or desktop software, telephone or digital television (Daniel, 1999)

Electronic Banking Systems, in its most proficient form, offer instant verification and transfer and reduces the flow of costly paper in the recordkeeping process. Application of technology in

banking offer opportunity for reduction of both paper and people. Banks have developed electronic banking service for three main reasons.

- To protect and increase market share
- To reduce operating cost by substituting physical capital and technology for labor
- To generate new revenue

Electronic banking allow banks to expand their markets for traditional deposit taking and credit extension activities, and to offer new products and services or strengthen their competitive position in offering existing payment services. In addition, electronic banking could reduce operating costs for banks. More broadly, the continued development of electronic banking and electronic money may contribute to improving the efficiency of the banking and payment system and to reducing the cost of retail transactions nationally and internationally. The development in information technology has contributed positively to economic growth through several channels. ICT has led to a productivity growth through the impact on activity processes. Banks have been increasing their own size and financial strength and expanding the scope of their products lines to meet the growing demand of their customers. Abid and Noreen (2006)

2.1.2 Definition of E-Banking

E-banking has been defined in many ways by different scholars; Daniel (1999) defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as personal computers and mobile phone with browser or desktop software, telephone or digital television; Abid and Noreen (2006) defined it as any use of information and communication technology and electronic means by a bank to conduct transactions and have interaction with stakeholders; Magembe et al.(2002) also defined electronic banking (e-banking) is nothing but e-business in banking industry. E-banking is a generic term for delivery of banking services and products through electronic channels, such as the telephone, the internet, the cell phone, etc. 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).

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.

Another definition of E-banking is that, it is the use of a computer to retrieve and process banking data (statements, transaction details, etc.) and to initiate transactions (payments, transfers, requests for services, etc.) directly with a bank or with other financial service provider remotely via a telecommunications network (Yang, 1997, p.2). 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), ATMs, POS, kiosk, or touch tone telephone (Alagheband, 2006.).

2.2 Types of E-banking

Among the many e-banking delivery channels to provide banking service to customers, ATM, POS, Mobile & Tele-banking and internet banking are the most widely used and discussed below:-

Automated Teller Machines (ATM)

This is a computerized telecommunications device that provides the customer of a financial institution with space to financial transaction in a public space without the need for a human clerk or bank teller. It also sells recharge cards and transfer funds; it can be accessed 24 hours/7 days with account balance enquiry (Fenuga, 2010). ATM is same as teller point but it run automatically through identity like card and password. It does not need any slip or Cheque but it is very much based on account holder's ATM card and it's Password. Generally, ATM machines provide the same services, such as money withdrawal, balance enquiry, mini statement.

INTERNET BANKING

Internet banking allows customers of a financial institution to conduct financial transactions on a secure website operated by the institution, which can be a retail or virtual bank, credit union or society. It may include any transactions related to online usage. Banks increasingly operate websites through which customers are able not only to inquire about account balances, interest and exchange rates but also to conduct a range of transactions. Unfortunately, data on Internet banking are scarce, and differences in definitions make cross-country comparisons difficult (Alabar, 2012).

Point-of-Sale Transfer Terminals (POS)

POS also sometimes referred to as point of purchase (POP) or checkout is the location where a transaction occurs. A "checkout" refers to a POS terminal or more generally to the hardware and software used for checkouts, the equivalent of an electronic cash register. A POS terminal manages the selling process by a salesperson accessible interface. The same system allows the creation and printing of the receipt. POS systems record sales for business and tax purposes (Shittu, 2010).

MOBILE BANKING

Mobile banking also known as M-Banking is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or PDA. The earliest mobile banking services were offered over Short Message Service (SMS), a service known as SMS banking. Mobile banking is used in many parts of the world with little or no infrastructure, especially remote and rural areas. This aspect of mobile commerce is also popular in countries where most of their population is unbanked. In most of these places, banks can only be found in big cities, and customers have to travel hundreds of miles to the nearest bank. The scope of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information (Tiwari et al., 2007).

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).

Tele-banking

Telephone banking service is provided by phone. To access an account, it is required to dial a particular telephone number and there are several options of services. Options included Checking account balance, funds transfer between current, savings and credit card accounts Bill payments, Stock exchange transaction receive statement via fax loan payment information. (Habibur, Mohammed & Sayeed, 2012)

2.3 The Evolution of E-Banking

Innovation in E-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 early 1980's, in New York where it was offered by major banks in that city, such as Citibank and Chase Manhattan. The United Kingdom banks started to adopt the concept in 1983 when the Bank of Scotland first introduced it. Back then it required a computer terminal, a monitor, and a telephone line. It was also offered through a numeric keypad on a telephone enabling sending messages to the bank. The early services were very basic ones such as viewing your bank statements and paying your bills online. It was not a full transaction banking service; however, it paved the way for the more comprehensive and sophisticated E-banking services that we see today (Shannak, 2003).

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 machines (ATMs), Phone Banking, PC.

Automated teller machines (ATMs) were the first well-known machines to provide electronic access to customers whereas in phone banking, users call their bank's computer system on their ordinary phone and use the phone keypad to perform banking transactions.

2.3.1 Importance of E-Banking

Electronic banking is a new industry which allows people to interact with their banking accounts via the Internet from virtually anywhere in the world. The electronic banking system addresses several emerging trends: customer demand for anytime, anywhere service, product time-to market imperatives and increasingly complex back-office integration challenges. This system allows consumers to access their banking accounts, review most recent transactions, request a current statement, transfer funds, view current bank rates and product information and reorder checks (Yi-Jen Yang, 2011).

Understanding e-banking service is important for several stakeholders since it helps them to derive benefits from it. Many banks and other organizations have already implemented or are planning to implement e-banking because of the numerous potential benefits associated with it. Some of these major benefits according to Shah & Clarke (1997) are briefly described below.

2.3.2 From the Banks Point of View

The first benefits for the banks offering e-banking services were better branding and better responsiveness to the market. The other benefits were possible to measure in monetary terms. The main goal of every company was to maximize profits for its owners and banks were not any exception. Automated e-banking services offered a perfect opportunity for maximizing profits.

Attracting High Value Customers

E-Banking often attracts high profit customers with higher-than-average income and education levels, which helps to increase the size of revenue streams. For a retail bank, e-banking customers are therefore of particular interest, and such customers are likely to have a higher demand for banking products. Most of them are using online channels regularly for a variety of purposes, and for some there is no need for regular personal contacts with the bank's branch network, which is an expensive channel for banks to run (Berger & Gensler, 2007). Some research suggests that

adding the Internet delivery channel to an existing portfolio of service delivery channels results in nontrivial increases in bank profitability (Young, 2007). These extra revenues mainly come from increases in non-interest income from service charges on deposit/current accounts. These customers also tend to be of high-income earners with greater profit potential.

Enhanced Image

E-banking helps to enhance the image of the organization as a customer focused innovative organization. This was especially true in the 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 a young/professional customer base.

Increased Revenues

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

Easier Expansion

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

The main benefit from the bank customers' point of view was significant saving of time by the automation of banking services processing and introduction of easy maintenance tools for managing customer's money. The main benefits of e-banking were as follows:

- Increased comfort and timesaving-transactions made 24 h a day, without requiring physical interaction with the bank.
- Funds management: Customers can download their history of different accounts and do a "what-if" analysis on their own PC before affecting any transaction on the web.
- Corporations had easier access to information as they checked on multiple accounts at the click of a button. Better cash management.
- E-banking facilities speed up the cash cycle and increases efficiency of business processes as large variety of cash management instruments is available on Internet sites of banks.
- Private customers looked for slightly different kinds of benefits from e banking (SaidulHassan.et al, 2010).

Benefits of E-banking

Banks just like other businesses are turning to information technology to improve business efficiency, service quality and attract new customers. Farshad et al., (2013) aver that the most important factors encouraging consumers to use online banking are lower fees followed by reducing paperwork and human error. Subsequently electronic channels can lead to lower transaction costs which are very competitive (Claessens and Kliengbiel, 2000). Farshad et al., (2013) is of the view that disputes can be minimized between the employees as there is a clear flow of processes. Conducting business outside the normal branch working hours has also been a

factor that has been considered convenient for bankers, inexpensive access to the bank 24/7 and seven days a week. Increased availability and accessibility of more self-service distribution channels help bank administration in reducing the expensive branch network and associated staff overheads. A reduction in the percentage of customers visiting the banks with an increase in alternative channels of distribution will also minimize the queues in branches (Thornton and White, 2001). According to Thornton and White (2001) this ultimately leads to improved customer satisfaction. Jayawardhena and Foley (2000) observe that electronic banking increases competition within the banking system and from non-bank financial institutions.

Electronic Banking, as already stated, has greatly serviced both the public and the banking industry. This has resulted in the creation of a better enabling environment that supports growth, productivity, and prosperity. Besides many tangible benefits in the form of reduction of cost, reduced delivery time, increased efficiency, reduced wastage, banking electronically controlled and thoroughly monitored environment and discourage many illegal and illegitimate practices associated with banking industry like money laundering, frauds, and embezzlements. Further E-banking has helped banks in better monitoring of their customer base. This is a useful tool in the hands of the bank to device suitable commercial packages that are in conformity with customer needs. As e-banking provides opportunity to banking sector to enlarge their customer base, a consequence to increase the volume of credit creation which results in better economic condition. Besides, E-banking has also helped in documentation of the economic activity of the masses (Mahdi Salehi, 2004).

2.4 Banking History in Ethiopia

A reference to the Ethiopian history reveals that the first bank in the country, Bank of Abyssinia was founded during the regime of Emperor Menelik II in February 1905. Due to a foreign domination of its management (mainly the British), the then Bank of Abyssinia was forced to dissolve and in its place was established the Bank of Ethiopia in 1931 whose management was still left to foreigners due to the then lack of skilled manpower in the country.

The appearance of E-banking in Ethiopia goes back to the late 2001, when the largest state owned, Commercial Bank of Ethiopia (CBE) introduced ATM to deliver service to the local users. In addition to eight ATM Located in Addis Ababa, CBE has had Visa membership since November

14, 2005. But, due to lack of appropriate infrastructure it failed to reap the fruit of its membership. Despite being the pioneer in introducing ATM based payment system and acquired visa membership. (Gardachew, 2010)

2.5 Electronic Banking in Ethiopia

Undeniably the largest state-owned bank, Commercial Bank of Ethiopia, introduced ATM service for local users in 2001 with its fleet of eight ATMs located in Addis Ababa (Gardachew, 2010). Then after Dashen Bank come in to the picture in 2006 with its ATMs that provide service to Dashen Debit Cardholders and International Visa Cardholders coming to Ethiopia Dashen Bank, worked aggressively to maintain its lead in electronic payment systems. United Bank was the first to introduce telephone and Internet banking systems - including text messages (SMS) - by the end of 2008 (United Bank web report, 2015).

Thereafter, Wegagen Bank introduced Core banking system since July 2000 that helps to connect its head office with branches through network. The bank signed an agreement with Technology Associates (TA), a 19 Kenyan based IT firm, for the development of the solutions for the payment system and installation of a network of ATMs on December 30, 2008. Currently, Wegagen Bank is providing card payment services (through ATM and POS), internet banking as well as mobile banking services (Wegagen Bank web report, 2015) Zemen Bank, which follows a single branching strategy, has launched prepaid bank card which can be used without opening deposit account at the bank also providing electronic payment services through ATMs located in various locations of the country.

The Commercial Bank of Ethiopia CBE has launched internet banking services in its effort to diversify its business ventures and reach a broader section of customers by providing alternative medium of transactions. In June 15, 2012 The services are divided into personal and corporate internet banking. With CBE's internet banking individual customers can check their balances transaction details transfer funds transfer money to business partners, family and friends place standing orders, view cheque details, etc around the clock from the comfort of their homes or offices without having to visit a branch. Ethiopia is underdeveloped and therefore there is an all

immediate need to embark on capacity building arrangements and modernize the banking system by employing the state-of-the-art technology being used anywhere in the world.

With a growing number of import-export businesses, and increased international trades and international relations, the current banking system is short of providing efficient and dependable services and therefore all banks operating in Ethiopia should recognize the need for introducing electronic banking system to satisfy their customers and meet the requirements of rapidly expanding domestic and international trades, and increasing international banking services (Worku, 2010).

2.7 E-Banking faces in the adoption of Risks

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

Operational risks

As security considerations are paramount, as banks may be subject to external or internal attacks on their systems or products. Operational risk can also arise from customer misuse, and from inadequately designed or implemented electronic banking and electronic money systems. Banks faces three main types of operations risk: such as volume forecasts, management information systems and Outsourcing.

Accurate volume forecasts have proved difficult - One of the key challenges encountered by banks is how to predict and manage the volume of customers that they will obtain. Many banks going on-line have significantly misjudged volumes. When a bank has adequate systems to cope with demand it may suffer reputational and financial damage, and even compromises in security if extra systems that are inadequately configured or tested are brought on-line to deal with the capacity problems.

The second type of operations risk concerns management information systems. Again, this is not unique to E-banking. Banks may have difficulties in obtaining adequate management information to monitor their e-service, as it can be difficult to establish/configure new systems to ensure that sufficient, meaningful, and clear information is generated. Such information is particularly important in a new field like e-banking.

Finally, a significant number of banks offering e-banking services outsource related business functions, e.g. security, either for reasons of cost reduction or, as is often the case in this field, because they do not have the relevant expertise in-house. Outsourcing a significant function can create material risks by potentially reducing a bank's control over that function. (Kaur & Rajneesh, 2014).

Security Issue:

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

The security risk is the main threat from hackers, who can use several types of information of public peoples for reason of criminal activity. While Sometimes hackers hike the passwords of the clients cause to theft their money or some hidden or secret information (Kazmi & Hashim, 2015).

Reputational risk

Some reasons for this risk are a system or product not functioning as expected, significant deficiencies in the system, security breaches (external or internal). Any problems encountered by one firm in this new environment may affect the business of another, as it may affect confidence in the Internet as a whole. There is therefore a risk that one rogue e-bank could cause significant problems for all banks providing services via the Internet. This is a new type of systemic risk and is causing concern to e-banking providers. Overall, the Internet puts an emphasis on reputational risks.

2.8 Empirical literature review

2.8.1 Challenges and Opportunities of E-Banking

Several empirical studies examined the challenges and opportunities of E-banking service, adoption and implementation in both developed and developing countries in general and also studies in Ethiopia are available. A brief review of each of the different studies is presented in the following discussions.

The study conducted in Bangladesh on the challenge of E-banking adoption and implementation by M. M. Rahman (2008). The study result point out that 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.

Another study conducted by Seyed (2013) on studying the effect of E-Banking on Bank Profitability; Case Study Selected Asian Countries stated E-Banking as one of the gifts to human beings by computer technology. The study covers four banks that have adopted online banking in Asian selected countries between 1990 and 2010 with support of a short-run cointegration relationship after allowing for the heterogeneous country effect. The long-run relationship is estimated using a full-modified OLS. By using bank specific and macroeconomic control variables, the researcher investigate the impact of internet banking on the return on assets (ROA) and equity (ROE). Accordingly, the results show that internet banking variable has had a positive effect on the performance of the banking system.

Another study on E-banking and profitability was done in Nigeria by Abaenewe et al (2013) investigated the profitability performance of Nigerian banks following the full adoption of electronic banking system using judgmental sampling method was adopted by utilizing data collected from four Nigerian banks. The profitability performance of these banks was measured in terms of returns on equity (ROE) and returns on assets (ROA). With the data collected, we tested the pre- and post-adoption of E-banking performance difference between means using a standard statistical technique for independent sample at 5 percent level of significance for performance

factors such as ROE and ROA. The study revealed that the adoption of electronic banking has positively and significantly improved the returns on equity (ROE) of Nigerian banks. On the other hand and on the contrary, it also revealed that e-banking has not significantly improved the returns on assets (ROA) of Nigerian banks. The findings of this study have motivated new recommendations for bank customers, bank management and shareholders about electronic banking adoption for banking operations.

A study conducted by Wondwossen & Tsegai (2005) on the challenges of E-banking adoption in selected commercial banks in Ethiopia observed that the following reasons considered being the hindrance factors for the use of electronic payment system in Ethiopia. These hindrance factors include, lack of appropriate infrastructure for E-payment, lack of internet facilities with customer and learning how to interact with bank website. Moreover, factors that affect adoption of E-banking in the country regarding the technological factor, organizational factor and Environmental factor. Another study conducted in Ethiopia on Challenges and Opportunities of Electronic Banking in Ethiopian Banking Industry by Kassahun (2016) indicated that, the major challenges Ethiopian banking industry faces in the adoption and development of E-banking technology are, high cost of implementation of E-banking, lack of customer awareness, limitation in network infrastructure and internet related support services, low levels of computer literacy, low level of ICT infrastructure, lack of sufficient government support, legal and regulatory differences with cross-country security risk and lack of trust.

The study identified operational and services benefits from adopting and developing of E-banking technology such as increase productivity, reduces paper work, reduce transaction cost, generate foreign currency, increase reliability and reducing errors as operational benefits and facilitate development of new products, facilitates marketing and market access, improve customer service, reduce long queues in banking halls, increase accessibility of the bank services, create good relation among banks and clients and encourages price transparency as services benefits.

2.8.1.1. Challenges faced by E-Banking

According to Gardachew (2010) Ethiopian banking industry faces numerous challenges to adopt E-banking system and grab the opportunities presented by ICT applications in general. The Key Challenges for E-banking applications are:

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

- **Regulatory and Legal Issues** – inexistence of proper legal and regulatory framework.
- **Non-readiness of banks and other stakeholders (acceptability)** – even though some have shown impressive willingness, some banks are still not fully ready for this new payment regime.
- **Cyber security issues** - 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 and businesses and potentially harm banking 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. In the deployment of e-banking application, attention should be drawn to the prevention of cyber-crime.
- **Resistance to changes in technology among customers and staff due to:**
 - Lack of awareness on the benefits of new technologies.
 - Lack of trained personnel in key organizations
 - Tendency to be content with the existing structures.
 - People are resistant to new payment mechanisms.
 - Frequent connectivity failure in telephone lines
 - Frequent power interruption

Opportunities of E-Banking

According to M.s, M Rahman (2008) in Bangladesh e-banking is now a global phenomenon. Apart from the developed countries, the developing countries are experiencing strong growth in e-banking. The government's emphasis on setting up ICT park, raising allocation for developing ICT infrastructure, waiving taxes on computer peripherals and other measures including the automation program of banking sector and competition among the scheduled banks in improving customer services have accelerated the prospects of e-banking. The fact that the overall commercial banks branch in Ethiopia compared to the size of the population and the area of the country is very minimal, it creates a good advantage to expand E banking facilities and reach the widespread population of the country through virtual banking systems.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Designing appropriate research methodology is a prerequisite to conduct good research work. Accordingly, this chapter discusses the methodology by which the searcher used to conduct this study. Thus, background of the study area, research design, sampling, data source and method of collection and method of data analysis are presented below respectively.

3.2 Research Design

The research design is the blueprint that shows research type selection, appropriate data type to be collected and methods of data analysis. Commonly, there are three types of research. One is descriptive, which is mostly describing the existing situation as it is. The second type is explanatory which is describing relationship or cause and effect among variables. The third type of research is exploratory, which is experimental in nature. The research method in this study is descriptive survey type. Descriptive research includes surveys and fact-finding enquiries of different kinds. The major purpose of descriptive research is description of the situation as it exists at present. This method is chosen because it is a sound to identify and explain investigations of challenges and prospects of implementing electronic banking in Commercial Bank of Ethiopia.

3.3 Research Approach

As per Creswell (2003) there are three approaches that are used in conducting given research. These are quantitative, qualitative, and mixed research approach. Quantitative research approach focuses primarily on the construction of quantitative data, and quantitative data is a systematic record that consists of numbers constructed by the researcher utilizing the process of measurement and imposing structure (Kent, 2007). The quantitative research approach employs measurement that can be quantifiable while the qualitative approach cannot be measured (Bryman & Bell, 2007). In a mixed research approach inquirers draw liberally from both qualitative and quantitative assumptions (Creswell, 2009).

In this study, the researcher adopted a qualitative study approach because it provided in- depth information to address the objectives. In all, 43 questionnaires were administered to the selected

banks to solicit information concerning the E-banking. Part of the information was also gathered from reports in the bank concerning E-banking services.

3.4 Population

In research methods, the population is the entire aggregation of items from which samples can be drawn (Yahiya, 2011 cited on Kassahun, 2016). The population of the present study the one commercial bank under study i.e. Commercial Bank of Ethiopia is all over the country 1,739 branches; in Addis Ababa, there are 120 branches. But a study may entail a large population that cannot all be studied In order to undertake this study, the researcher purposely sampled 13 branches of the bank which adopted E-banking technology. Those branches are in Addis Ababa.

3.5 Sample Size

According to Kothari (2004), a sample design is a definite plan to get a sample from the target population; the study takes an estimation sample of the population. To select a representative sample, the researcher used the probability sampling technique. The reason for taking the probability-sampling technique is the possibility of getting a representative list of the target population or exact population. Among probability sampling techniques, the study used a random sampling technique to distribute the questionnaires. To determine the sample size Ronald M Weirs (2002), states that "because of the tremendous amount of time and money required for a complete census of the large population a sample can be more accurate than a census in conducting a real-world study". When the sample is used there also sampling error, which occurs because of the use of the sampling method. This sampling error can be decreased by taking a large sample size. The total populations of the study were employees who are working in the selected branch of commercial bank of Ethiopia. For selecting a sample from each public sector stratified random sampling is used. The main purpose of stratification is to reduce sampling error and to increase efficiency. It involves the division or stratification of a population by partitioning the sampling frame into non-overlapping and relatively homogeneous groups. For this study, the researcher has used Yamane's (1967) formula with a 95% level of confidence and 5% acceptable error to determine sample size as $n = \frac{N}{1+N(e)^2}$

Where:

n = required respondents (171)

e_2 = error limit (0.05)

N = population size (299)

3.6 Data Collection Methods

3.6.1 Questionnaire

The questionnaires were related to the research questions and the objective of this study. Such a data collection instrument is developed to gather large data (Clark V. L., 2008). For this study, the researcher used a structured questionnaire in the form of a Likert scale to collect the required data from the sample respondents.

The questionnaires were organized into two sections. The first part deals with the respondent profile or demographic information. The second part is related to the challenges and opportunities of e-banking in the commercial bank of Ethiopia measured on a 5 scale Likert.

3.6.1.1 Questionnaire Design

A questionnaire is the most used and popular data gathering tool that helps in collecting data from a large number of respondents. The layout of the questionnaire is very simple to encourage meaningful participation by the respondents. The questions have set as concisely / to the point/ as possible with care taken to the actual wording and phrasing of the questions. The reason for the appearance and layout of the questionnaire are important in any survey where the questionnaire is to be completed by the respondent (John, et al., 2007). Questionnaires are set based on the reviewed literature.

The questions used in the questionnaire were closed-ended five-point Likert scale item Questions. The five alternatives are: strongly agree, agree, Neutral, disagree and strongly Disagree. According to Zikmund (1994), using a Likert scale allows the respondents to indicate their attitudes by checking how strongly they agree or disagree with the constructed statements.

The type of scale used to measure the items on the instrument is an interval scale. To get a clear understanding of the respondents with the questionnaire, the researcher tried to be precise and distributed these to the respondents.

3.7. Methods of Data Analysis

After the researcher collected data through a questionnaire, to make it understandable the raw data were checked, tallied, numbered, arranged, and organized in tables. In accordance with data collection tools, quantitative approaches were applied. Thus, the analysis of the data, being

collected has been done in line with data types. That means data obtained through close-ended questionnaires were analyzed quantitatively. Descriptive analysis was applied by using modern tools (software) SPSS version 26 because SPSS is known for its ability to process large amounts of data with its wide as spectrum of statistical procedures purposely for social scientists as stated by (Onyango, 2001) and (Mugenda, 2008). The researcher used the Descriptive data analysis method and interpreted it qualitatively.

3.8. Reliability and Validity

3.8.1 Validity

Validity always relates to the extent to which the research data as well as the methods for finding the data are accurate, honest, and on target (Denscombe, 2003). Relevant information requires careful planning to ensure that the information is clearly related to research objectives and collected from the individuals best suited to providing the information. Obtaining information that is complete and accurate requires well-planned information collection instruments and survey administration procedures.

Statistical Conclusion Validity examines the extent to which conclusions derived using a statistical procedure are valid. This type of validity was addressed through the selection of the right statistical method used for measuring the variables. Since this specific study is quantitative it is worth to consider the issue of statistical conclusion validity.

3.8.2 Reliability

Reliability refers to whether an instrument can be interpreted consistently across different situations. Reliability differs from validity in that it relates not to what should be measured, but instead to how it is measured. Hair et al. (2007) define reliability as the extent to which a variable or a set of variables is consistent in what it is intended to measure. Duffy, Duffy, and Kilbourne (2001) asserted, that Cronbach's α measures the consistency with which participants answer items within a scale. Duffy et al. (2001) further stated a high α (greater than .60) indicates that the items within a scale are measuring the same Construct.

3.9 Ethical Consideration

This study was carried out in line with the necessary approval and permission letter from St Mary University and the written permission that was given by the bank based on a written inquiry made by the researcher. Throughout the whole process of data collection, all the respondents have been

treated in an ethical manner with mutual understanding of each other, furthermore, a brief introduction is made about the study and its objectives to the key informants. In this process, the researcher tried to let the participants know the purpose of the research and participate upon their consent. The questionnaire provided to the respondents contained general information about the purpose of the study. In addition to that it tried to indicate that the respondents need not mention their names in the questionnaire and that all the responses are kept confidential.

CHAPTER FOUR

4. Results and Discussions

4.1 Introduction

The findings of the study were presented and analyzed in this chapter. The questionnaire was developed in five scales ranging from five to one; where 5 represents strongly agree, 4 agree, 3 Neutral, 2 disagree, and 1 strongly disagrees. These five scales are treated as interval scales to conduct statistical analysis. Harry and Deborah (2012) stated that Likert scale data, can analyzed at the interval measurement scale. Likert scale items are created by calculating a composite score (sum or mean) from four or more type Likert-type items; the composite score for Likert scales can be analyzed at the interval measurement scale. Descriptive statistics recommended for interval scale items include the mean for central tendency and standard deviations for variability.

A total of 171 questionnaires were distributed to employees and 171(100%) questionnaires were obtained valid and used for analysis. To analyze the data that is collected through questionnaire descriptive statistics was employed. After making the necessary coding, the data in the computer was analyzed by using SPSS version 26 which is a specialized statistics program that can provide sufficient tools for analyzing the collected data. In descriptive statistics, frequency counts and percentage mean and standard deviation are used to analyze various characteristics of the same population. This statistical tool helps to determine the relative standing characteristics such as sex, age, academic qualification, and work experience. The tools used to analyze variables related to the topic under study for each variable and the findings are presented in tabular summaries, and their implications are discussed.

4.2 General Information of the respondents

4.2.1. Gender

| | Gender | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|--------------------|
| Valid | Male | 65 | 38 | 38 | 38 |
| | Female | 106 | 62 | 62 | 100.0 |
| | Total | 171 | 100.0 | 100.0 | |

Table; 4.1 the gender Composition of Respondents

Source; Own Survey, 2023

With regard to the gender composition 65(38%) of the respondents were Males and the remaining 106(62%) of the respondents were Female respondents. This indicated that the Gender composition is Female respondents was more than that of males.

4.2.2. Age

| | Age | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 21-30 | 130 | 76 | 76 | 76 |
| | 31-40 | 33 | 19.3 | 19.3 | 95.3 |
| | 41-50 | 8 | 4.7 | 4.7 | 100.0 |
| | Total | 171 | 100.0 | 100.0 | |

Table; 4.2 the Age Composition of Respondents

Source; Own Survey, 2023

According to table 4.2 shown above, whose age between 21-30 years consists of 130(76%) of the total sample size. 33(19.3%) of respondents are between the age of 31-40 and 8 (4.7%) of the total sample are under the age of 40-50. Hence it indicates that the age composition of the respondents is dominated by a relatively young population.

4.2.3. Educational Level

| Educational Level | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------|-------------------------|-----------|---------|---------------|--------------------|
| Valid | First Degree | 90 | 52 | 52 | 52 |
| | Master Degree and Above | 81 | 48 | 48 | 100.0 |
| | Total | 171 | 100.0 | 100.0 | |

Table 4.3 Education level composition of respondents

Source; own survey; 2023

Regarding to the level of education, the table above shows 90 (52%) respondents were first degree holders and the remaining 81 (48%) respondents are master's degree holders but from the respondents there were no Diploma holders. This revealed that almost all of the respondents are first degree and above holders and assumed that they are most probability highly educated.

4.2.4. Working Experiences

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------------|-----------|---------|---------------|--------------------|
| Valid | 1-3 years | 40 | 23.4 | 23.4 | 24 |
| | 4-6 years | 57 | 33.3 | 33.3 | 57.3 |
| | 7-10 Years | 58 | 33.9 | 33.9 | 91.6 |
| | Above 10 years | 16 | 9.4 | 9.4 | 100.0 |
| | Total | 171 | 100.0 | 100.0 | |

Table 4.4 Work Experience of Respondents

Source; Own Survey, 2023

As table 4.4 shown above, those respondents whose experience is between 1-3 years consists of 40(23.4%) of the total sample size. Of the total respondents 57(33.3%) is consisted by those whose experience is between 4-6 years and 58(33.9%) respondents are those with 7-10 years' experience. The remaining respondents 16(9.4%) is covered by those respondents who worked more than 10 years in the sectors. This indicated us most of the respondents have 3-10 years' work experience.

4.3 Descriptive Statistics Analysis

This section presents the results of the descriptive statistical analyses of the data and their interpretations. The descriptive statistics used are the frequency with its percent, means, and standard deviations. The main purpose of using this statistical parameter is to interpret the average response rate of respondents for each item. The respondents were to give their independent opinion on the practice, challenge, and Opportunity of E Banking in the case of Bole District Branch.

According to Kajuju (2012), the scores of strongly agree /agree have been taken to present a Variable which had a mean score of 3.5 to 5 on the continuous Likert scale; ($3.5 \leq S.E < 5$). The scores of neutral have been taken to represent a variable with a mean score of 2.5 to 3.4 on the continuous Likert scale; ($2.5 \leq M.E < 3.4$). The score of disagree/strongly disagree has been taken to represent a variable that had a mean score of 0 to 2.5 on the continuous Likert scale; ($0 \leq L.E < 2.5$). A standard deviation of >0.8 implies a significant difference in the impact of the variable among respondents. Despite the above range of scoring, the researcher used her judgment to classify the range of scores obtained on the continuous 5-point Likert scale as follows variable with a mean score of 3.5 to 5 has taken as strongly agree/agree on the continuous Likert scale, a score of 0 to 2.4 as strongly disagree/disagree on the continuous Likert scale and medium (moderate) mean scores 2.5 to 3.4. "Any score can be assigned as long as the intensity of the response pattern is reflected in the score and the highest score is assigned to the response with the highest intensity." (Renjit Kumar: Research Methodology, pp.16)

4.3.1 Factors that affect E-banking in the commercial bank of Ethiopia.

4.3.1.1 Technological factor

| Questions/Statement | Likert scale | Frequency | Percent | Mean | Std. |
|---|-------------------|-----------|---------|-------------|-----------|
| | | | | Statistic | Deviation |
| Full of confidence with the security aspects | Strongly Disagree | 8 | 4.7 | 3.34 | 1.325 |
| | Disagree | 65 | 38.0 | | |
| | Neutral | 0 | 0 | | |
| | Agree | 57 | 33.3 | | |
| | Strongly Agree | 41 | 24.0 | | |
| crimes like money laundering and other financial are not easily facilitated through e-banking | Strongly Disagree | 8 | 4.7 | 2.77 | 1.063 |
| | Disagree | 80 | 46.8 | | |
| | Neutral | 42 | 24.6 | | |
| | Agree | 25 | 14.6 | | |
| | Strongly Agree | 16 | 9.4 | | |
| Users have trust by E-banking technology provided by banks | Strongly Disagree | 9 | 5.3 | 3.46 | 1.312 |
| | Disagree | 49 | 28.7 | | |
| | Neutral | 16 | 9.4 | | |
| | Agree | 48 | 28.1 | | |
| | Strongly Agree | 49 | 28.7 | | |
| Don't have risk to use E-banking technology assume by Customer | Strongly Disagree | 16 | 9.4 | 2.92 | 1.200 |
| | Disagree | 57 | 33.3 | | |
| | Neutral | 48 | 28.1 | | |
| | Agree | 25 | 14.6 | | |
| | Strongly Agree | 25 | 14.6 | | |

Table 4.5 Technological Factors

Source; own survey; 2023

As shown in Table: 4.5 above, ‘Full of confidence with the security aspects’ has a mean score of **3.34** (strongly agree 24%, 33.3% agree, neutral 0%, 38% disagree, and strongly disagree 4.3%). on “crimes like money laundering and other financial are not easily facilitated through e-banking” has the mean score **2.77** (strongly agree 9.4%, agree 14.6%, neutral 24.6%. disagree 46.8% and strongly disagree 4.7%); under “Users have trusted by E-banking technology provided by banks” has a mean score of **3.46** (strongly agree 28.7%, agree 28.1%, neutral 9.4%. disagree 28.7% and strongly disagree 5.3%); for the question “Don’t have risk to use E-banking technology assume by Customer” the mean score is **2.92** (strongly agree 14.6%, agree 14.6%, neutral 28.1%. disagree 33.3% and strongly disagree 9.4%).

This revealed that the security aspect of e-banking at commercial banks of Ethiopian is in some extent confident the same to that the crimes like money laundering and other financials are not easily facilitated through e-banking. With respect to the Users trust by E-banking technology provided by banks is in somewhat true but the risk to use E-banking technology assumed by Customers was moderate. The graph below also shows that the technological factor elements moderately affect the e-banking system of Commercial Bank of Ethiopia. The graph 4.2 below also shows that the cumulative mean score of the technological factor is 3.12. This implies that the respondents were agreed up on the impact of technological factors on the E-banking in commercial bank of Ethiopia to some extent.

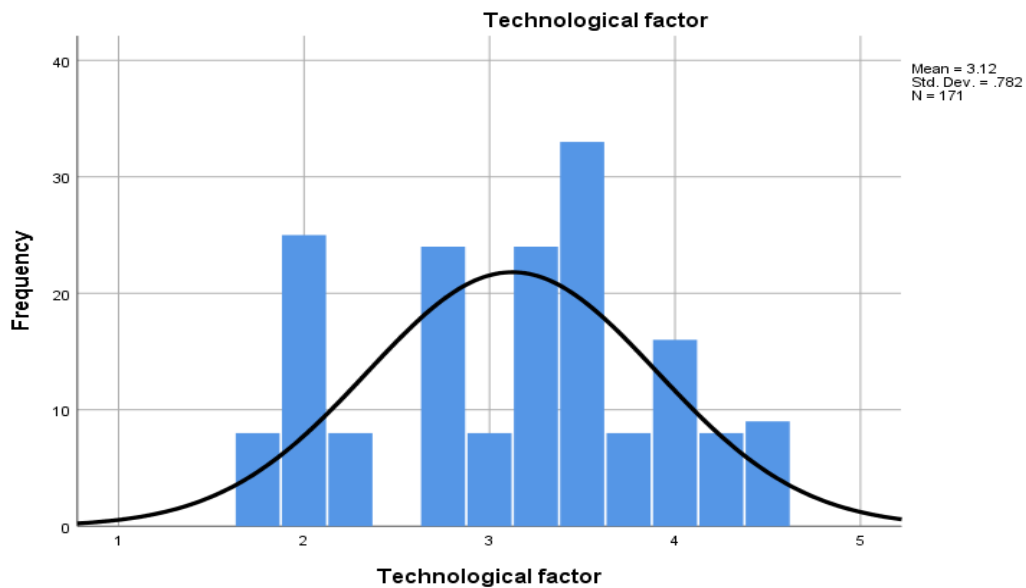


Fig 4.1 Technological factors that affect e-banking

4.3.1.2 Organizational factor

| Questions/Statement | Likert scale | Frequency | Percent | Mean | Std. Deviation |
|---|-------------------|-----------|---------|-------------|----------------|
| | | | | Statistic | Statistic |
| Well-developed customer awareness about E-banking products | Strongly Disagree | 33 | 19.3 | 3.01 | 1.397 |
| | Disagree | 40 | 23.4 | | |
| | Neutral | 16 | 9.4 | | |
| | Agree | 56 | 32.7 | | |
| | Strongly Agree | 26 | 15.2 | | |
| Well technical and managerial skills in implementation and use of E-banking technology | Strongly Disagree | 0 | 0 | 3.39 | 1.097 |
| | Disagree | 57 | 33.3 | | |
| | Neutral | 16 | 9.4 | | |
| | Agree | 73 | 42.7 | | |
| | Strongly Agree | 25 | 14.6 | | |
| Low cost of implementation of E-banking. (such as cost of ICT equipment and network, software and reorganization) | Strongly Disagree | 32 | 18.7 | 2.70 | 1.302 |
| | Disagree | 56 | 32.7 | | |
| | Neutral | 41 | 24.0 | | |
| | Agree | 16 | 9.4 | | |
| | Strongly Agree | 26 | 15.2 | | |

Table 4.6 Organizational Factors
Source; own survey; 2023

As shown in table: 4.6 above, under ‘Well-developed customer awareness about E-banking products’ has a mean score of **3.01** (strongly agree 15.2%, agree 32.7%, neutral 9.4%, disagree 23.4% and strongly disagree 19.3%). on “Well technical and managerial skills in implementation and use of E-banking technology” has the mean score **3.39** (strongly agree 14.6%, agree 42.7%, neutral 9.4%, and disagree 33.3%); under Questions/Statement “Low cost of implementation of E-banking. (such as cost of ICT equipment and network, software and reorganization” has a mean score of **2.70** (strongly agree 15.2%, agree 9.4%, neutral 24%. disagree 32.7% and strongly disagree 18.7%). This shows us the awareness of customers about E-banking is not that much developed. There is also limitation of technical and managerial skills in implementing and using of E-banking technology at commercial bank of Ethiopia. In addition to this, the cost of implementation of E-banking not as low as expected in the case of commercial bank of Ethiopia.

The graph 4.2 below indicated that the cumulative mean score of the organizational factor is 3.03 which means the organizational factors influence on E-banking practice in commercial bank of Ethiopia is moderate.

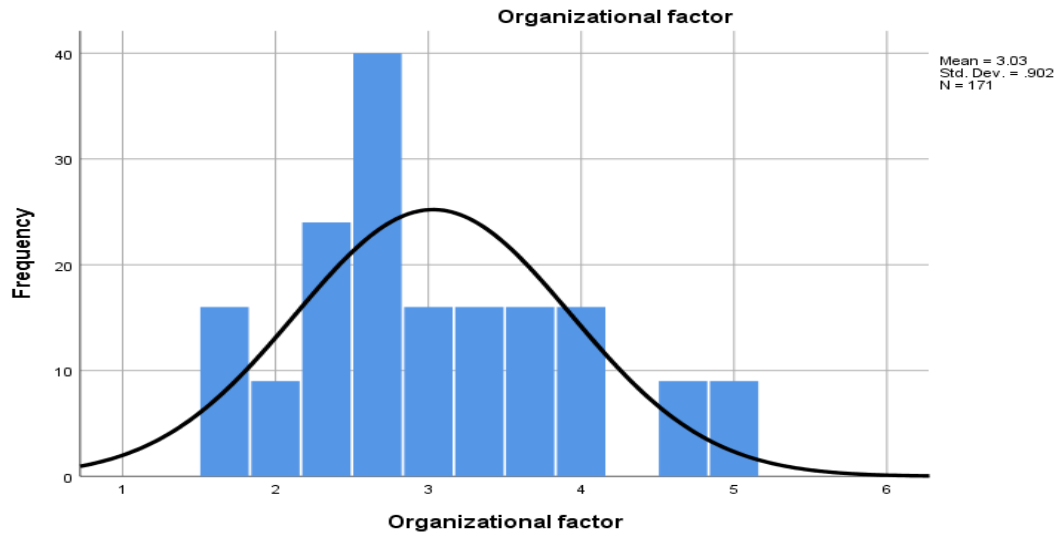


Fig 4.2 organizational factors that affect e-banking

4.3.1.3 Environmental factor

| Questions/Statement | Likert scale | Frequency | Percent | Mean | Std. Deviation |
|---|-------------------|-----------|---------|-----------|----------------|
| | | | | Statistic | Statistic |
| There is government role to support customers' willingness | Strongly Disagree | 24 | 14.0% | 3.06 | 1.218 |
| | Disagree | 24 | 14.0% | | |
| | Neutral | 65 | 38.0% | | |
| | Agree | 33 | 19.3% | | |
| | Strongly Agree | 25 | 14.6% | | |
| Have better legal framework for E-banking | Strongly Disagree | 16 | 9.4% | 3.20 | 1.222 |
| | Disagree | 32 | 18.7% | | |
| | Neutral | 57 | 33.3% | | |
| | Agree | 33 | 19.3% | | |
| | Strongly Agree | 33 | 19.3% | | |
| Have law mandating the bank to access E-banking technology | Strongly Disagree | 8 | 4.7% | 3.57 | 1.057 |
| | Disagree | 17 | 9.9% | | |
| | Neutral | 48 | 28.1% | | |
| | Agree | 65 | 38.0% | | |
| | Strongly Agree | 33 | 19.3% | | |
| Sufficient network infrastructure and internet related support services | Strongly Disagree | 49 | 28.7% | 2.57 | 1.410 |
| | Disagree | 49 | 28.7% | | |
| | Neutral | 24 | 14.0% | | |
| | Agree | 24 | 14.0% | | |
| | Strongly Agree | 25 | 14.6% | | |
| Have experience by computer literacy | Strongly Disagree | 0 | 0% | 3.39 | .856 |
| | Disagree | 33 | 19.3% | | |
| | Neutral | 48 | 28.1% | | |
| | Agree | 81 | 47.4% | | |
| | Strongly Agree | 9 | 5.3% | | |
| No limitation of ICT infrastructure | Strongly Disagree | 41 | 24.0% | 3.70 | 4.485 |
| | Disagree | 32 | 18.7% | | |
| | Neutral | 33 | 19.3% | | |
| | Agree | 40 | 23.4% | | |
| | Strongly Agree | 25 | 14.6% | | |
| Have well adequate strong coordination, interaction and cooperation between banks and other decision making centers in E -banking context | Strongly Disagree | 0 | 0% | 3.11 | 1.029 |
| | Disagree | 65 | 38.0% | | |
| | Neutral | 40 | 23.4% | | |
| | Agree | 49 | 28.7% | | |

| | | | | | |
|--|-------------------|----|-------|------|-------|
| | Strongly Agree | 17 | 9.9% | | |
| Present of financial networks that links different banks | Strongly Disagree | 0 | 0% | 3.47 | .966 |
| | Disagree | 33 | 19.3% | | |
| | Neutral | 49 | 28.7% | | |
| | Agree | 64 | 37.4% | | |
| | Strongly Agree | 25 | 14.6% | | |
| Frequent power has not disruption | Strongly Disagree | 16 | 9.4% | 2.87 | 1.090 |
| | Disagree | 49 | 28.7% | | |
| | Neutral | 65 | 38.0% | | |
| | Agree | 24 | 14.0% | | |
| | Strongly Agree | 17 | 9.9% | | |
| Uniform Platform by Banks i.e. law mandating the banks to use common software platform | Strongly Disagree | 8 | 4.7% | 3.06 | .906 |
| | Disagree | 32 | 18.7% | | |
| | Neutral | 82 | 48.0% | | |
| | Agree | 40 | 23.4% | | |
| | Strongly Agree | 9 | 5.3% | | |

Table 4.7 Environmental Factors

Source; own survey; 2023

As shown in table 4.7 above, under ‘There is government role to support customers’ willingness’ has a mean score of **3.06** (strongly agree 14.6%, agree 19.3%, neutral 38.0%, disagree 14.0% and strongly disagree 14.0%). This implies that to some extent the government has a role to support the customers’ willingness.

The response for “Have better legal framework for E-banking” has the mean score **3.20** (strongly agree 19.3%, agree 19.3%, neutral 33.3%, disagree 18.7% and Strongly disagree 9.4%); under Questions/Statement “Have law mandating the bank to access E-banking technology” has a mean score of **3.57** (strongly agree 19.3%, agree 38.0%, neutral 28.1%. disagree 9.9% and strongly disagree 4.7%). Under “Sufficient network infrastructure and internet related support services” the mean value is 2.57 (strongly agree 14.6%, agree 14.0%, neutral 14.0%. disagree 28.7% and strongly disagree 28.7%). For the statement “Have experience by computer literacy” has the mean score 3.39 (strongly agree 5.3%, agree 47.4%, neutral 28.1% and disagree 19.3%).

The response for “No limitation of ICT infrastructure” the mean score is 3.70 (strongly agree 14.6%, agree 23.4%, neutral 19.3%, disagree 18.7% and Strongly Disagree 24.0). With regard to the statement “Have well adequate strong coordination, interaction and cooperation between banks and other decision-making centers in E -banking context” able 4.3.4 above indicates that mean score 3.11 (strongly agree 9.9%, agree 28.7%, neutral 23.4%, and disagree 38.0%), “Present of

financial networks that links different banks” mean scores 3.47(strongly agree 14.6%, agree 37.4%, neutral 28.7%, and disagree 19.3%). “Frequent power has not disruption” mean score 2.87 (strongly agree 9.9%, agree 14.0%, neutral 38.0%, disagree 28.7% and strongly Disagree 9.4%) and “Uniform Platform by Banks i.e. law mandating the banks to use common software platform” mean score 3.06 (strongly agree 5.3%, agree 23.4%, neutral 48.0%, disagree 18.7% and strongly Disagree 4.7). This shows us with regard to legal framework for E-banking, Sufficient network infrastructure and internet related support services, experience by computer literacy, No limitation of ICT infrastructure, adequate strong coordination, interaction and cooperation between banks and other decision making centers in E -banking context, Present of financial networks that links different banks, Frequent power has not disruption”, “Uniform Platform by Banks i.e. law mandating the banks to use common software platform the respondents are moderately agreed, but on mandating the bank to access E-banking technology they are strongly agreed. Generally, as we show from the graph 4.3 below, the environmental factor is to somewhat affects the E-banking system of Commercial bank of Ethiopia with a mean score 3.2.

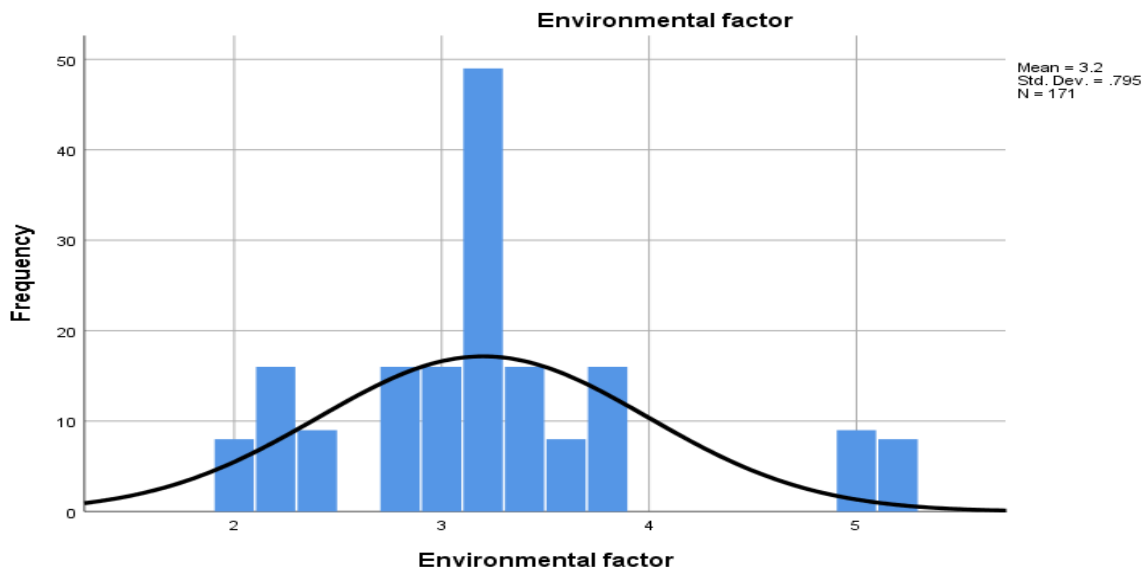


Fig 4.3 Environmental factors that affect e-banking

4.3.2 Benefits of E-Banking

Despite different challenges faced by adopting and extending of E-banking technology in Ethiopia banking industry, there are enormous benefits expected from introducing of E-banking technology which includes operational and services benefits.

4.3.2.1 Operational Benefits

| Questions/Statement | Likert scale | Frequency | Percent | Mean | Std. Deviation |
|---|-------------------|-----------|---------|-----------|----------------|
| | | | | Statistic | Statistic |
| Reduced paper work | Strongly Disagree | 0 | 0 | 4.39 | .996 |
| | Disagree | 16 | 9.4 | | |
| | Neutral | 16 | 9.4 | | |
| | Agree | 24 | 14.0 | | |
| | Strongly Agree | 115 | 67.3 | | |
| Low transaction cost | Strongly Disagree | 0 | 0 | 3.99 | 1.114 |
| | Disagree | 24 | 14.0 | | |
| | Neutral | 34 | 19.9 | | |
| | Agree | 32 | 18.7 | | |
| | Strongly Agree | 81 | 47.4 | | |
| Enhance productivity in the banking industry | Strongly Disagree | 16 | 9.4 | 4.15 | 1.240 |
| | Disagree | 0 | 0 | | |
| | Neutral | 24 | 14.0 | | |
| | Agree | 34 | 19.9 | | |
| | Strongly Agree | 97 | 56.7 | | |
| Enhance foreign currency generation | Strongly Disagree | 8 | 4.7 | 3.86 | 1.289 |
| | Disagree | 25 | 14.6 | | |
| | Neutral | 32 | 18.7 | | |
| | Agree | 24 | 14.0 | | |
| | Strongly Agree | 82 | 48.0 | | |
| Increase reliability and error free transaction | Strongly Disagree | 0 | 0 | 3.39 | 1.053 |
| | Disagree | 49 | 28.7 | | |
| | Neutral | 32 | 18.7 | | |
| | Agree | 65 | 38.0 | | |
| | Strongly Agree | 25 | 14.6 | | |

Table 4.8 Operational Benefits

Source; own survey; 2023

This topic tries to explain the benefit of E-banking in operational and service activities. With respect to operational benefit, the researcher raised some questions/statements. As shown the above table 4.8, the question “Reduced paper work” has a mean score of **4.39** (strongly agree

67.3%, agree 14.0%, neutral 9.4%, disagree 9.4%). With regard to “Low transaction cost” has the mean score **3.99** (strongly agree 47.4%, agree 18.7%, neutral 19.9%, and disagree 14.0%); under Statement “Enhance productivity in the banking industry” mean score of **4.15** (strongly agree 56.7%, agree 19.9%, neutral 14.0%, and strongly disagree 9.4%), “Enhance foreign currency generation” mean score is 3.86 (strongly agree 48.0%, agree 14.0%, neutral 18.7%, disagree 14.6% and strongly Disagree 4.7%) and “Increase reliability and error free transaction” mean score 3.39 (strongly agree 14.6%, agree 38.0%, neutral 18.7%, and Disagree 28.7%). This shows us E-banking Reduces paper work, lowers transaction cost, Enhance productivity in the banking industry, Enhance foreign currency generation but with regard to Increase reliability and error free transaction there may be some limitation with mean score of 3.39.

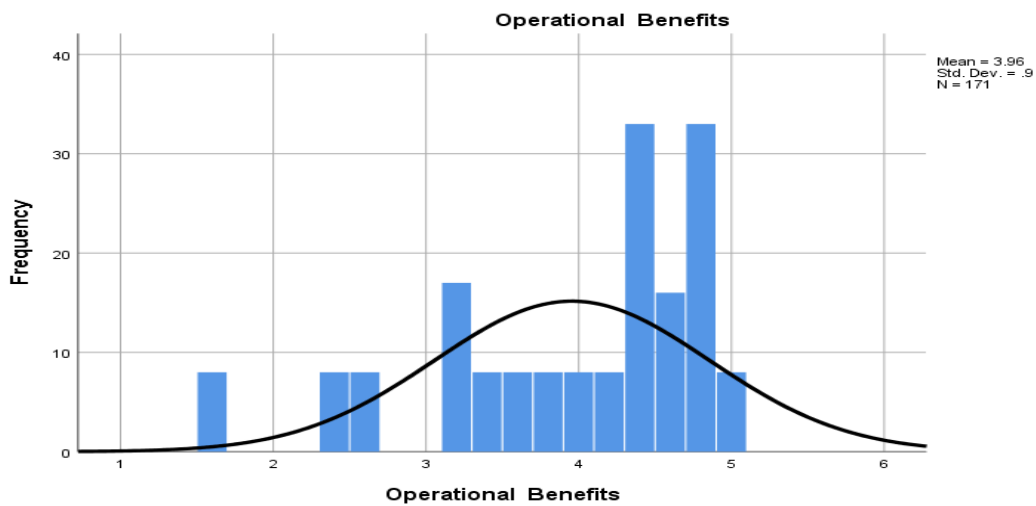


Fig 4.4 operational Benefits of E-banking

4.3.2.2 Services Benefits

| Questions/Statement | Likert scale | Frequency | Percent | Mean | Std. Deviation |
|---|-------------------|-----------|---------|-----------|----------------|
| | | | | Statistic | Statistic |
| Facilitates development of new products and new business in the banking industry | Strongly Disagree | 0 | 0 | 4.05 | .903 |
| | Disagree | 8 | 4.7 | | |
| | Neutral | 41 | 24.0 | | |
| | Agree | 56 | 32.7 | | |
| | Strongly Agree | 66 | 38.6 | | |
| convenient, in terms of 7/24 hours services, accessibility, i.e. No time limit to access bank account and information | Strongly Disagree | 8 | 4.7 | 4.19 | 1.048 |
| | Disagree | 8 | 4.7 | | |
| | Neutral | 8 | 4.7 | | |
| | Agree | 66 | 38.6 | | |
| | Strongly Agree | 81 | 47.4 | | |
| Enhance accessibility of the bank's services (in terms of place) | Strongly Disagree | 8 | 4.7 | 4.14 | 1.081 |
| | Disagree | 8 | 4.7 | | |
| | Neutral | 17 | 9.9 | | |
| | Agree | 57 | 33.3 | | |
| | Strongly Agree | 81 | 47.4 | | |
| Improve customers service delivery | Strongly Disagree | 8 | 4.7 | 4.05 | 1.089 |
| | Disagree | 8 | 4.7 | | |
| | Neutral | 25 | 14.6 | | |
| | Agree | 57 | 33.3 | | |
| | Strongly Agree | 73 | 42.7 | | |
| Improving transaction speeds | Strongly Disagree | 16 | 9.4 | 4.00 | 1.270 |
| | Disagree | 8 | 4.7 | | |
| | Neutral | 17 | 9.9 | | |
| | Agree | 49 | 28.7 | | |
| | Strongly Agree | 81 | 47.4 | | |
| Reduce queues in the banking hall | Strongly Disagree | 16 | 9.4 | 3.96 | 1.175 |
| | Disagree | 0 | 0 | | |
| | Neutral | 25 | 14.6 | | |
| | Agree | 64 | 37.4 | | |
| | Strongly Agree | 66 | 38.6 | | |
| Create better relationship among banks and clients | Strongly Disagree | 16 | 9.4 | 3.81 | 1.219 |
| | Disagree | 0 | 0 | | |
| | Neutral | 50 | 29.2 | | |
| | Agree | 40 | 23.4 | | |
| | Strongly Agree | 65 | 38.0 | | |
| Encourages price transparency | Strongly Disagree | 16 | 9.4 | 4.01 | 1.232 |
| | Disagree | 0 | 0 | | |

| | | | | | |
|--|----------------|----|------|--|--|
| | Neutral | 32 | 18.7 | | |
| | Agree | 41 | 24.0 | | |
| | Strongly Agree | 82 | 48.0 | | |

Table 4.9 Services benefits
Source; own survey; 2023

With respect to service benefit, the researcher raised some questions/statements. As shown the above table 4.9, the question “Facilitates development of new products and new business in the banking industry” has a mean score of **4.05** (strongly agree 38.6%, agree 32.7%, neutral 24.0%, disagree 4.7%). With regard to “convenient, in terms of 7/24 hours services, accessibility, i.e. No time limit to access bank account and information” has the mean score **4.19** (strongly agree 47.4%, agree 38.6%, neutral 4.7%, and disagree 4.7% and Strongly Disagree 4.7%); under Statement “Enhance accessibility of the bank's services(in terms of place)” mean score of **4.14** (strongly agree 47.4%, agree 33.3%, neutral 9.9%, Disagree 4.7% and strongly disagree 4.7%), “Improve customers service delivery” mean score is 4.05 (strongly agree 42.7%, agree 33.3%, neutral 14.6%, disagree 4.7% and strongly Disagree 4.7%), “Improving transaction speeds” mean score 4.00 (strongly agree 47.4%, agree 28.7%, neutral 9.9%, Disagree 4.7% and strongly Disagree 9.4%), “Reduce queues in the banking hall” mean score 3.96 (strongly agree 38.6%, agree 37.4%, neutral 14.6%, and strongly Disagree 9.4%), with “Create better relationship among banks and clients” mean score 3.81 (strongly agree 38.0%, agree 23.4%, neutral 29.2%, and strongly Disagree 9.4%), and “Encourages price transparency” mean score 4.01 (strongly agree 48.0%, agree 24.0%, neutral 18.7%, and strongly Disagree 9.4%). This shows us E-banking Facilitates development of new products and new business in the banking industry, convenient, in terms of 7/24-hour services, accessibility, i.e. No time limit to access bank account and information, enhance accessibility of the bank's services (in terms of place), Improve customers service delivery, improving transaction speeds, reduce queues in the banking hall, Create better relationship among banks and clients, and Encourages price transparency.

Fig 4.5 below also Shows us E-banking has a service benefit at commercial bank of Ethiopia because the mean score is 4.03 with std. dev.= 0.974.

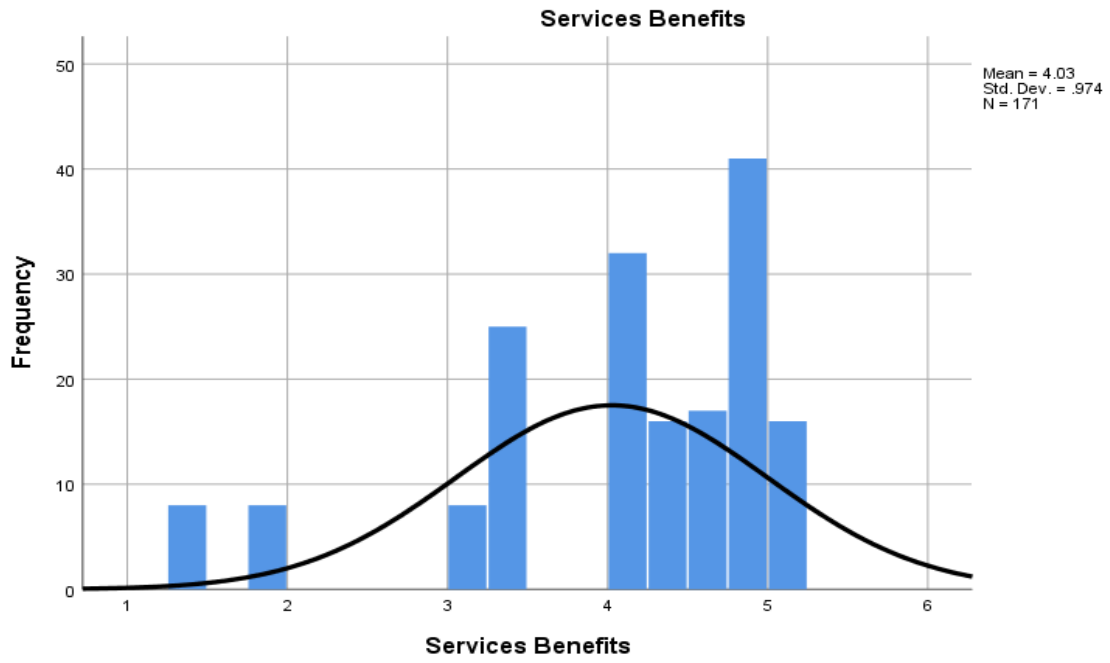


Fig 4.5 Services Benefits of E-banking

4.3.3 Driving forces for service and accessibility of E-banking service in commercial bank of Ethiopia

| statement | Likert scale | Frequency | Percent | Mean | Std. Deviation |
|--|-------------------|-----------|---------|-----------|----------------|
| | | | | Statistic | Statistic |
| Desire to improve organizational performance and productivity | Strongly Disagree | 8 | 4.7 | 4.20 | 1.136 |
| | Disagree | 16 | 9.4 | | |
| | Agree | 57 | 33.3 | | |
| | Agree | 0 | 0 | | |
| | Strongly Agree | 90 | 52.6 | | |
| Desire to improve the relationship with customers | Strongly Disagree | 8 | 4.7 | 4.19 | 1.048 |
| | Disagree | 8 | 4.7 | | |
| | Neutral | 8 | 4.7 | | |
| | Agree | 66 | 38.6 | | |
| | Strongly Agree | 81 | 47.4 | | |
| Desire to cover wide geographical area | Strongly Disagree | 0 | 0 | 4.29 | .931 |
| | Disagree | 16 | 9.4 | | |
| | Neutral | 8 | 4.7 | | |
| | Agree | 57 | 33.3 | | |
| | Strongly Agree | 90 | 52.6 | | |
| Desire to build organizational reputation | Strongly Disagree | 8 | 4.7 | 3.96 | 1.087 |
| | Disagree | 8 | 4.7 | | |
| | Neutral | 32 | 18.7 | | |
| | Agree | 58 | 33.9 | | |
| | Strongly Agree | 65 | 38.0 | | |
| Desire to reduce transaction cost | Strongly Disagree | 8 | 4.7 | 3.85 | 1.282 |
| | Disagree | 24 | 14.0 | | |
| | Neutral | 34 | 19.9 | | |
| | Agree | 24 | 14.0 | | |
| | Strongly Agree | 81 | 47.4 | | |
| Desire to improve customer service | Strongly Disagree | 0 | 0 | 4.06 | 1.172 |
| | Disagree | 32 | 18.7 | | |
| | Neutral | 16 | 9.4 | | |
| | Agree | 33 | 19.3 | | |
| | Strongly Agree | 90 | 52.6 | | |
| Desire to satisfy rapid change of customer needs and preferences | Strongly Disagree | 0 | 0 | 4.15 | 1.035 |
| | Disagree | 16 | 9.4 | | |
| | Neutral | 32 | 18.7 | | |
| | Agree | 33 | 19.3 | | |

| | | | | | |
|--|----------------|----|------|--|--|
| | Strongly Agree | 90 | 52.6 | | |
|--|----------------|----|------|--|--|

Table 4.10 Driving forces for accessibility of E-banking

Source; own survey; 2023

The above table 4.10 shows the driving forces for service and accessibility of E-banking service in commercial bank of Ethiopia. According the response of the respondents they agree and strongly agreed that among the driving forces for the service and accessibility of E-banking services in Commercial Bank of Ethiopia are Desire to improve organizational performance and productivity (mean score= 4.20), Desire to improve the relationship with customers (mean score= 4.19), Desire to cover wide geographical area (mean score= 4.29), Desire to build organizational reputation (mean score= 3.96), Desire to reduce transaction cost (mean score= 3.85), Desire to improve customer service (mean score= 4.06), and Desire to satisfy rapid change of customer needs and preferences (mean score= 4.15).

4.3.4 Existing opportunities in the country for accessibility of E-banking service

| statement | Likert scale | Frequency | Percent | Mean | Std. Deviation |
|--|-------------------|-----------|---------|-----------|----------------|
| | | | | Statistic | Statistic |
| Legal frame works that enforce banking industries to expand technological innovation | Strongly Disagree | 16 | 9.4 | 3.49 | 1.257 |
| | Disagree | 24 | 14.0 | | |
| | Neutral | 32 | 18.7 | | |
| | Agree | 58 | 33.9 | | |
| | Strongly Agree | 41 | 24.0 | | |
| Commitment of the government to strengthen the banking industry | Strongly Disagree | 32 | 18.7 | 3.40 | 1.433 |
| | Disagree | 8 | 4.7 | | |
| | Neutral | 40 | 23.4 | | |
| | Agree | 41 | 24.0 | | |
| | Strongly Agree | 50 | 29.2 | | |
| Support green development strategy for the government | Strongly Disagree | 40 | 23.4 | 3.02 | 1.276 |
| | Disagree | 0 | 0 | | |
| | Neutral | 65 | 38.0 | | |
| | Agree | 49 | 28.7 | | |
| | Strongly Agree | 17 | 9.9 | | |
| The existence of high demand | Strongly Disagree | 8 | 4.7 | 3.72 | 1.199 |
| | Disagree | 24 | 14.0 | | |
| | Neutral | 33 | 19.3 | | |
| | Agree | 49 | 28.7 | | |
| | Strongly Agree | 57 | 33.3 | | |
| Improvement in the banking habit of the society | Strongly Disagree | 16 | 9.4 | 3.74 | 1.318 |
| | Disagree | 24 | 14.0 | | |

| | | | | | |
|--|-------------------|----|------|------|-------|
| | Neutral | 8 | 4.7 | | |
| | Agree | 64 | 37.4 | | |
| | Strongly Agree | 59 | 34.5 | | |
| Commitment of the government to facilitate the expansion of ICT infrastructure | Strongly Disagree | 24 | 14.0 | 3.45 | 1.368 |
| | Disagree | 24 | 14.0 | | |
| | Neutral | 16 | 9.4 | | |
| | Agree | 65 | 38.0 | | |
| | Strongly Agree | 42 | 24.6 | | |

Table 4.11 Existing opportunities

Source; own survey; 2023

For the question raised by the researcher; “What are the existing opportunities in the country that initiates the accessibility of E-banking service?” as shown in the above table 4.11 the response of the respondents is “the existence of high demand” (mean score= 3.72), “Improvement in the banking habit of the society” (mean score= 3.74) and “Legal frame works that enforce banking industries to expand technological innovation (mean score= 3.49) are the most agreeable existing opportunities where as “Commitment of the government to strengthen the banking industry”(mean score= 3.40), “Support green development strategy for the government” (mean score= 3.02), and “Commitment of the government to facilitate the expansion of ICT infrastructure” (mean score= 3.45) are moderately existing opportunities in the country for accessibility of E-banking service.

4.4. Discussion on the Results

With regard to Technological factor:- As Afewerke Gugsu’s research (2015) finding, fear of risk is found to be one of the possible factors that hinder adoption of e-banking system in Ethiopia. This is different from the findings of this research in which the security aspect of the e-banking at commercial bank of Ethiopian is in some extent confident the same to that the crimes like money laundering and other financials are not easily facilitated through e-banking.

According to Tamru (2021) lack of customers trust with E-banking technology is one technological factor that have a negative impact for adoption and growth of E-banking technology but this study Users somewhat trust by E-banking technology provided by commercial bank.

Concerning to Organizational factor :-This study shows us the awareness of customers about E-banking is not that much developed. There is also limitation of technical and managerial skills in implementing and using of E-banking technology at commercial bank of Ethiopia. In addition to this, the cost of implementation of E-banking not as low as expected in the case of commercial bank of Ethiopia. This is in line with the findings of Tamiru (2021) in which High cost of implementing of E-banking technology such as cost of ICT equipment and network, software and re-organization, lack of technical and managerial skills in implementation and development of E-banking technology and lack of social awareness regarding E-banking services provided by banks were the major organizational challenges for implementation and growth of E-banking technology in the commercial banks.

With respect to environmental factor:- Under the statement of ‘There is government role to support customers’ willingness’; respondents were agreed to some extent which is different from the finding reported by Kassahun (2016) that lack of sufficient government support will affect customers’ willingness to use E-banking technological innovation

As per the response of the sampled participant lack of better legal framework for E-banking is the other challenge with mean of 3.20 which is consistent with the findings of Kassahun (2016) lack of legal framework for E-banking technology is considered as a challenge that will have a negative impact on the implementation and growth of E-banking technology in Ethiopia.

A report presented earlier by Kassahun(2016) there was lack of law mandating the bank to adopt E-banking technology innovation. Reversely this study revealed that their law mandating the bank to access E-banking technology” with a mean value of **3.57**.

Kassahun (2016) also found at his research; limitation in network infrastructure and internet related support services is the basic external challenge for adoption and growth of E-banking technology in Ethiopia, which is different from this study that “there is Sufficient network infrastructure and internet related support services”; a low level of customer computer literacy in the country is considered as basic challenge for implementation and growth of E-banking technology in Ethiopia which is similar with the response of this research for the statement “Have experience by computer literacy” respondents were not agree which has the mean value score of 3.39.

Kassahun (2016) also found that low level ICT infrastructure development in the country having is the other challenge which is different with the finding of this study that limitation of ICT infrastructure is not a challenge at commercial bank of Ethiopia. With regard to the statement “Have well adequate strong coordination, interaction and cooperation between banks and other decision-making centers in E -banking context” respondents are not agreed to some extent has mean score 3.11 which is consistent with the findings reported by there is no adequate coordination, interaction and cooperation between banks and other decision making centers in E-banking context.

The result further revealed that most respondents did not agree satisfactorily that “Presence of financial networks that links different banks” with a mean scores of 3.47, “Frequent power has not disruption “with mean score of 2.87. This is similar with the findings of Kassahun (2016) and Tamiru (2021) absence of financial networks that links different banks was the challenges that affect the adoption and growth of E-banking technology in commercial bank of Ethiopia.

Finally, with regard to “Uniform Platform by Banks i.e. law mandating the banks to use common software platform”; the respondents are agree with mean score 3.06 which similar with the finding of Kassahun (2016) that lack of law mandating the banks to use common software platform is a basic challenge of accessibility of E-banking services in commercial bank Ethiopia.

Concerning to operational Benefits:-According to the study conducted by Kassahun (2016) among the potential operational benefits E-banking technology in Ethiopia banking industry will increases productivity of the Bank, reduces paper work, lower transaction cost and generate foreign currencies which is indifferent with the finding of this study that accessibility of E-banking technology at commercial bank of Ethiopia Reduces paper work, lowers transaction cost, Enhances productivity in the banking industry and Enhances foreign currency generation,

Kassahun (2016) found in his study, With regard to E-banking technology adaptation, is increases reliability and reducing errors which is different this study found that in Increase reliability and error free transaction, there is some limitation with mean score of 3.39.

Services Benefits:-This study shows us E-banking Facilitates development of new products and new business in the banking industry, convenient, in terms of 7/24 hours services,

accessibility; i.e. No time limit to access bank account and information, Enhance accessibility of the bank's services (in terms of place), Improve customers service delivery, Improving transaction speeds, Reduce queues in the banking hall, Create better relationship among banks and clients, and Encourages price transparency. This is similar with the findings of the study conducted by Kassahun (2016)

Driving forces for service and accessibility of E-banking service in commercial bank of Ethiopia

Research conducted by Beza Muche (2010) indicated that desire to improve organizational performance, desire to improve the relationship with customers, desire to reduce transaction cost, desire to build organizational reputation and desire to satisfy customers are the major common driving forces that initiate banks for the adoption of e-banking as a means of service delivery to their customers. (Muche, 2010)

In line with this the response of the respondents under this study also show us Desire to improve organizational performance and productivity (mean score= 4.20), Desire to improve the relationship with customers (mean score= 4.19), Desire to cover wide geographical area (mean score= 4.29), Desire to build organizational reputation (mean score= 3.96), Desire to reduce transaction cost (mean score= 3.85), Desire to improve customer service (mean score= 4.06), and Desire to satisfy rapid change of customer needs and preferences (mean score= 4.15) are among the driving forces for the service and accessibility of E-banking services in Commercial Bank of Ethiopia.

Existing opportunities in the country for accessibility of E-banking service

Respondents of this research were agreed up on the statements “the existence of high demand” (mean score= 3.72), “Improvement in the banking habit of the society” (mean score= 3.74) which is similar with the finding of Tamiru (2021) the existence of high customers demand, and improvement in the banking habit of the society are the existing opportunities fostering the adoption and development of E-banking technology in Ethiopia banking industry. and Tamru also found that commitment of the government to facilitate the expansion of ICT infrastructure and to strengthen the banking industry is a positive opportunity which is differ from the finding of this research “Commitment of the government to strengthen the banking industry” (mean score= 3.40),

is not taken as a positive opportunity fostering the adoption and development of E-banking technology in Ethiopia banking industry. Additionally, “Legal frame works that enforce banking industries to expand technological innovation (mean score= 3.49) is the most agreeable existing opportunities where as “Support green development strategy for the government” (mean score= 3.02), is moderately existing opportunities in the country for accessibility of E-banking service.

CHAPTER FIVE

5. SUMMARY OF FINDINGS, CONCLUSIONS & RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the findings, conclusion and the possible Recommendation and suggestion for concerned bodies and further research methods.

5.2. Summary of the Findings

- **With regard to the technological Factor**, most of the respondents some what agreed up on the security aspect of the e-banking system at commercial bank of Ethiopian is in some extent confident the same to that the crimes like money laundering and other financial are not easily facilitated through e-banking. Users somewhat trust E-banking technology provided by banks but the risk to use E-banking technology assume by Customers was moderate.
- **With respect to organizational factors, the majority of the respondents stated that the awareness of customer about E-banking is not that much developed.** There is also limitation of technical and managerial skills in implementing and using of E-banking technology at commercial bank of Ethiopia. In addition to this, the cost of implementation of E-banking system is not as low as expected in the case of commercial bank of Ethiopia. These all data show us there is a negative impact of organizational factors which influences on E-banking practice in commercial bank of Ethiopia is moderate.
- **Regarding to Environmental factors**, respondents agreed that there is in some extent, a limitation in government's role on supporting the customers' willingness, in developing of legal framework for E-banking in the bank, there is law mandating the bank to access E-banking technology, Lack of sufficient network infrastructure and internet related support services, low experience in computer literacy, limitations of ICT infrastructure, somewhat weak in coordination, interaction and cooperation between banks and other decision making centers in E -banking context, absence of strong financial networks that links different banks and others.
- As the respondents feed-back E-banking system has big advantage on operation service such as lowering transaction cost, Enhance productivity in the banking industry, Enhance foreign currency generation, Increase reliability and error free transaction and service

benefit like Facilitates development of new products and new business in the banking industry, convenient and accessibility, Improve customers service delivery and transaction speed, Create better relationship among banks and clients, Encourages price transparency and the like.

- According to the respondents explained above, E-banking system also has its own driving forces on the side of desire to improve organizational performance and productivity, improve the relationship with customers, cover wide geographical area, build organizational reputation, reduce transaction cost, improve customer service, and Desire to satisfy rapid change of customer needs and preferences. Moreover, it has an opportunity to create Commitment of the government to strengthen the banking industry, Support green development strategy for the government, for the existence of high demand, Improve in the banking habit of the society and build Commitment of the government to facilitate the expansion of ICT infrastructure. But their limitation developing Legal frame works that enforce banking industries to expand technological innovation.

5.3. Conclusion

In accordance with the findings explain above, the researcher has point out the following conclusions:

- The security aspect of the e-banking system at commercial bank of Ethiopian is in some extent confident the same to that the crimes like money laundering and other financial are not easily facilitated through e-banking. Users somewhat trust E-banking technology provided by banks but the risk to use E-banking technology assume by Customers was moderate. Generally, the technological factor elements moderately affect the e-banking system of commercial bank of Ethiopia.
- The awareness of customers about E-banking is not that much developed. There is also limitation of technical and managerial skills in implementing and using of E-banking technology at commercial bank of Ethiopia. In addition to this, the cost of implementation of E-banking system is not as low as expected in the case of commercial bank of Ethiopia. These all data show us there is a negative impact of organizational factors which influences on E-banking practice in commercial bank of Ethiopia is moderate.

- There is in some extent, a limitation in government's role on supporting the customers' willingness, in developing of legal framework for E-banking in the bank, there is law mandating the bank to access E-banking technology, Lack of sufficient network infrastructure and internet related support services, low experience in computer literacy, limitations of ICT infrastructure, somewhat weak in coordination, interaction and cooperation between banks and other decision making centers in E -banking context, absence of strong financial networks that links different banks and others.
- The E-banking system has big advantage on operation service such as lowering transaction cost, Enhance productivity in the banking industry, Enhance foreign currency generation, Increase reliability and error free transaction and service benefit like Facilitates development of new products and new business in the banking industry, convenient and accessibility, Improve customers service delivery and transaction speed, Create better relationship among banks and clients, Encourages price transparency and the like.
- The E-banking system also has its own driving forces on the side of desire to improve organizational performance and productivity, improve the relationship with customers, cover wide geographical area, build organizational reputation, reduce transaction cost, improve customer service, and Desire to satisfy rapid change of customer needs and preferences. Moreover, it has an opportunity to create Commitment of the government to strengthen the banking industry, Support green development strategy for the government, for the existence of high demand, Improve in the banking habit of the society and build Commitment of the government to facilitate the expansion of ICT infrastructure. But there limitation developing Legal frame works that enforce banking industries to expand technological innovation.

4.4. Recommendation

Starting from the findings and conclusion described, the researcher tried to recommend the following possible recommendations for Commercial bank of Ethiopia in bole District.

- The Banks should be aware to its customers concerning the E-banking service system its benefits associated with using E-banking services through advertising and other media available.
- The bank should perform regarding creating confidence on the customers in security of transaction

- The bank also better to provide a Frequent power without any interruption with Sufficient network infrastructure and internet related support services.
- The bank should develop a platform that minimize cost of implementation risk to use E-banking of E-banking assume by Customer.
- The bank also should have tight control on crimes like money laundering and other financial.
- The bank is advised to create strong relationship with government to get support which fulfills customers' willingness.

4.5 Suggestions for Further Research

This study described challenges and opportunities of E-banking system in Ethiopia in the case of Commercial Bank of Ethiopia. Nevertheless, it did not consider the customers perspective and other stakeholder like Ethio-Telecom.

Therefore, the researcher would like to recommend further research be made on the area especially to capture the customers 'and other stakeholders' perspectives.

Appendix I

Questionnaire St,Mary's University Masters of Business Administration Department .

Dear Sir/Madam,

My name is Saba Hailu, MBA student in Business Administration at St.Mary University. I am undertaking research on the topic “assessment of challenges and opportunities of e-banking service”; the case of commercial bank of Ethiopia Addis Ababa Bole district” for the partial fulfillment of the requirements in MBA.

The aim of this questionnaire is to identify the assessment of e-banking service and accessibility, the case of commercial bank of Ethiopia Addis Ababa Bole districts. The results of the study will have paramount importance to the institutions, owners, clients, concerned government offices and policy makers and others. To this end, this questionnaire is prepared to gather pertinent information. I sincerely assure you that the information you provide will be used only for academic purposes. Your involvement is regarded as a great input to the quality of the research results. Your honest and thoughtful response is valuable. Please put the tick mark (√) on the appropriate space as per your choice for each close-ended question and the appropriate reason for open-ended questions.

Yours faithfully,

Saba Hailu
Tel Phone +251902324568

General Instruction

This questionnaire contains two sections and 3 pages that will be expected to take approximately 10 to 15 minutes to complete. Please provide your responses to the questions based on the instructions under each section. If you have comments or if you want to provide further explanations, please use the space provided at the end of the questionnaire.

Part I: Demographic profile of respondents please indicates the following by ticking (✓) on the spaces in front of the response options:

1. Gender: Male Female
2. Age: 21-30 31-40 41-50 51- 60 ≥ 61
3. Educational level: Diploma First degree Master Degree and above
4. Working experience: 1-3 years 4-6 years 7-10 years above 10 years

Part I: Research related questions

The following questions are presented on a five point Likert scale. If that aspect is much better than you hoped it could be choose 5 (strongly agree), if that aspect is even better than you expected it to be choose 4 (agree) if that aspect is what you would like it to be choose 3 (neutral), you would like choose 2 if it to be somewhat poor (disagree) and if that aspect is much poorer that you would like it to be choose 1 (strongly disagree).

Please put (√) in the place where the choice is appropriate for you. Section I: Questions related with the service of E-banking system in Commercial Bank of Ethiopia Diction1. Item 1-17 in the table below are accompanied with five options: Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree Key: 5= Strongly Agree, 4=Agree,3= Neutral, 2=Disagree, 1=Strongly Disagree

NO. statements 1 2 3 4 5

- 1) To what extent do you agree that the following potential strength affect e-banking service and accessibility technologies

Technological factor

- 1 full of confidence with the security aspects;
- 2 crimes like money laundering and other financial are not easily facilitated through e- banking;
- 3 Users have trust by E-banking technology provided by banks;
- 4 Don't have risk to use E-banking technology assume by Customer

Organizational factor

- 5 Well-developed customer awareness about E-banking products;
- 6 Well technical and managerial skills in implementation and use of E-banking technology
- 7 Low cost of implementation of E-banking. (such as cost of ICT equipment and network, software and reorganization;

Environmental factor

- 8 There is government role to support customers' willingness;

- 9 Have better legal framework for E-banking;
- 10 Have law mandating the bank to access E-banking technology.
- 11 Sufficient network infrastructure and internet related support services;
- 12 Have experience by computer literacy;
- 13 No limitation of ICT infrastructure ;
- 14 Have well adequate strong coordination, interaction and cooperation between banks and other decision making centers in E -banking context;
- 15 Present of financial networks that links different banks;
- 16 Frequent power has not disruption;
- 17 Uniform Platform by Banks i.e. law mandating the banks to use common software platform;

Operational Benefits

- 18 Reduced paper work;
- 19 Low transaction cost;
- 20 Enhance productivity in the banking industry;
- 21 Enhance foreign currency generation;
- 22 Increase reliability and error free transaction

Services Benefits

- 23 Facilitates development of new products and new business in the banking industry
- 24 convenient, in terms of 7/24 hours services, accessibility; i.e. No time limit to access bank account and information
- 25 Enhance accessibility of the bank's services(in terms of place);
- 26 Improve customers service delivery
- 27 Improving transaction speeds
- 28 Reduce queues in the banking hall

29 Create better relationship among banks and clients

30 Encourages price transparency

3) Do you think that the following are among the driving forces for the service and accessibility of E-banking services in Commercial Bank of Ethiopia?

31 Desire to improve organizational performance and productivity;

32 Desire to improve the relationship with customers;

33 Desire to cover wide geographical area

34 Desire to build organizational reputation;

35 Desire to reduce transaction cost

36 Desire to improve customer service;

37 Desire to satisfy rapid change of customer needs and preferences

4) What are the existing opportunities in the country that initiates the accessibility of E-banking service?

38 Legal frame works that enforce banking industries to expand technological innovation

39 Commitment of the government to strengthen the banking industry

40 Support green development strategy for the government.

41 The existence of high demand;

42 Improvement in the banking habit of the society.

43 Commitment of the government to facilitate the expansion of ICT infrastructure

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