



# **ASSESSMENT OF ELECTRONIC BANKING IMPLEMENTATION IN SELECTED COMMERCIAL BANKS IN ETHIOPIA**

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A research thesis Submitted to the School of Graduate studies of St. Marry University in Partial Fulfillment of  
the Requirements for the Degree of MBA in  
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Advisor: Zinegnaw Abiy (PhD)

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Addis Ababa

## **Statement of Certification**

This is to certify that Seble Hailu Degafe has carried out her research work on the topic entitled “**assessment of electronic banking implementation in selected commercial banks in Ethiopia**”. The work is original in nature and is suitable for the submission for the reward of MBA Degree in Accounting and Finance.

**Advisor: Zinegnaw Abiy (PhD)** \_\_\_\_\_

## Statement of Declaration

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Zinegnaw Abiy (PhD). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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Place and date of submission: St. Marry University, June, 2023

**ST. MARRY UNIVERSITY**

**DEPARTMENT OF ACCOUNTING AND FINANCE**

**ASSESSMENT OF ELECTRONIC BANKING IMPLEMENTATION IN SELECTED  
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## **Abstract**

*The study evaluates the implementation of E-banking technology in the Ethiopian selected commercial banks. Population of the study consist 3 selected commercial banks that have operated in 2023. The study was conducted based on the data gathered from three private commercial banks in Ethiopia. Purposive sampling method was used to draw the sample from the population. A qualitative research approach was employed to answer the research questions that occur through the review of existing literature and the experiences of the researcher in respect of the E-banking technology in Ethiopia. The study statistically analyzed data obtained from the survey questionnaire. A research framework developed based on technology-organization-environment framework to guide the study. The result of the study indicated that, challenges to the use of e-banking technologies in the selected banks, advantages, have those selected banks received as a result of their implementation of e-banking technology, the driving forces for the implementation of electronic banking technologies in the selected banks, opportunities in selected banks for the use of e-banking technology. The study identified operational and services benefits from implementation 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. Among the different driving forces that initiate Ethiopian banks to implement and extend E-banking technology: desire to improve performance, desire to improve the relationship with customers, rapidly changing customers' needs and preferences, desire to improve organizational performance, desire to cover wide geographical area, desire to build organizational reputation and desire to reduce transaction cost are among others. The study also indicated existing opportunities for E-banking implementation such as improvement in the banking habit of the society, late implementation of E-banking, commitment of the government to facilitate the expansion of ICT infrastructure and commitment of the government to strengthen the banking industry. The study recommended banks to facilitate proper and continuous ICT and business training for their employees, increasing security for E-banking products, create deep awareness about E-banking technology 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 of E-banking Technology in Ethiopia.*

**Keywords:** - E-Banking challenges, E-banking opportunities, benefits of E-banking, driving force.

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## **ACRONYMS & ABBREVIATIONS**

ATM- Automatic Teller Machine

BoA- Bank of Abyssinia

DB- Dashen Bank

E-Banking- Electronic Banking

E-Commerce- Electronic Commerce

E-Payment- Electronic Payment

FSA- Financial Services Authority

ICT- Information and Communication Technology

MTA- Model of Technology Acceptance

NBE- National Bank of Ethiopia

PBT- Planned Behavior Theory

TOID- Theory of Innovation Diffusion

TOEF- Technology-Organization-Environment framework

TRA Theory of Reasoned Action

ZB- Zemen Banks's.

## **CHAPTER ONE**

### **INTRODUCTION**

To summarize the study, this chapter first gives background information on the subject area, followed by a statement of the problem, a research purpose, and research questions. The study's limitations and scope, importance, and organizations are all discussed next.

#### **1.1 Background of the Study**

From the time of the first prototype banks, that is, merchants of the world who gave grain loans to farmers and traders, to the present day ICT and innovations that add electronic banking services, the banking industry has had a continuous evolutionary history. Most banks today have electronic systems to handle their huge daily task of information retrieval, storage, and processing.

Like all other corporations and firms, banks and financial institutions are constantly implementing those technological innovations and inventions. Today, electronic banking starts a new phase in competition because of its characteristics like speed, efficiency, diminishing expenses, and unique opportunities. Bank customers previously had to queue up to obtain financial services, In contrary, owing to improvements in information and communication technology, they may now connect directly to these services at any time and from any location, including their homes or other sites. Banks play significant role for economic development of nations in general and of developing countries like Ethiopia in particular, where the financial system as a whole is bank dependent due to poor development or even absence of the stock market. Banks play an important role as financial intermediaries for savers and borrowers in an economy. Financial intermediaries, as a component of the financial system, provide a payment mechanism, match supply and demand in the financial markets, deal with complex financial instruments and markets, provide market transparency, and perform risk transfer and risk management functions. All sectors of the economy virtually depend on the banking sector for their very survival and growth. Thus, the financial performance analysis of commercial banks has been of great interest to academic research (Elshaday T., Kenenisa, D., and Mohammed, S. 2018).

The rapid advancement of universal information infrastructure, information technology, and computer networks such as the Internet and telecommunication systems with smart phones enabled the development of electronic services at a global level.

ATM cards, credit cards, debit cards, smart cards, POS systems, mobile banking—all these have eased up human life to such an extent that today life without them would be hard and loaded with inconveniences. The financial industry has been much more open to improvements in all sectors of financial intermediation

and financial markets, such as e-finance, e-money, electronic banking (e-banking), e-brokering, e-insurance, e-exchanges, and even e-supervision, throughout time. F. Bonsu (2015).

In all sectors of financial intermediation and financial markets, including e-finance, e-money, electronic banking (e-banking), e-brokering, e-insurance, e-exchanges, and even e-supervision, the financial industry has become considerably more receptive to innovation throughout time. Farshad Havasi and colleagues (2013). In wealthy nations, electronic banking is widely used, and its use is growing quickly in underdeveloped nations. Nonetheless, cash continues to be the most common form of transaction in Ethiopia, and electronic payment systems are still in their infancy. Ethiopia's banking industry cannot continue to be an exception in the fast expansion of electronic payment systems throughout industrialized and emerging nations.

According to Elias, G. 2019, Ethiopia's banking industry is preparing to increase its capacity and modernize its financial system by implementing the most cutting-edge technologies available. Today, commercial banks are also implementing numerous e-banking facility sorts. Amid these, here are trickles that attitude obtainable: online banking, mobile banking, ATMs, and POS channels. Especially Bank of Abyssinia's Apollo face recognition e-banking and virtual banking system, Zemen Bank's Z-Cash system (transfer, cash out, and deposit on the ATM machine without an ATM card), and Dashen Bank's DUBE ALE e-banking technology are all recent technologies implemented.

Therefore, the main purpose of this study is to assess the current and recent usage of e-banking services, the implementation of those services by the selected banks, as well as the opportunities offered, the advantages gained, the forces that are changing everything, and the challenges related to e-banking services in Ethiopia.

## **1.2 Statement of the Problem**

Nearly all developed nations use e-banking extensively and it is obviously transfer to developing countries. Even so, despite the rapidly spread of electronic payment systems in both developed and developing countries, Ethiopia's financial sector is still lagging in implementing the latest technology. As a result, Ethiopia's financial industry is relatively late in implementing electronic banking and transactional systems. Many studies on the e-banking system have been conducted in numerous nations worldwide. Dissimilar academics have acknowledged different aspects in the implementation of E-banking as the key drivers of new technology, including organizational aspects like a lack of skilled labor, staff confrontation to technological changes, and environmental influences like a lack of an proper permissible and governing basis for E-commerce, poor ICT infrastructure, and a lack of competitive

burden. Nonetheless, relatively less research has been done on the implementation of e-banking inside the banking sector in developing nations like Ethiopia, despite the significance of these implementations of e-banking. So, further research is still needed to evaluate the challenges, opportunities, benefits, and driving forces of e-banking in the nation and pinpoint any areas where it falls short and prevents the implementation of e-banking.

Consequently, the primary goal of this study is to evaluate how the three commercial banks—Bank of Abyssinia, Zemen Bank, and Dashen Bank—in Ethiopia are implementing the challenges, benefits, driving forces, and opportunities acquired from the electronic banking operations.

### **1.3 Research Questions**

Based on the research questions stated above the research objectives and specific objectives develop.

- What are the challenges to the use of e-banking technologies in the selected banks?
- What advantages have those selected banks received as a result of their implementation of e-banking technology?
- What are the driving forces for the implementation of electronic banking technologies in the selected banks?
- What opportunities in selected banks for the use of e-banking technology?

### **1.4 Objectives of the Study**

Based on the research questions stated above the research objectives and specific objectives develop.

#### **1.4.1 General Objective**

The study's primary objective is to assess how commercial banks in a selected group of commercial banks have implemented electronic banking.

#### **1.4.2 Specific Objectives**

The study's specific objectives are as follows:

- To examines challenges to the use of e-banking technologies in the selected banks.
- To assess advantages, have those selected banks received as a result of their implementation of e-banking technology.
- To find the driving forces for the implementation of electronic banking technologies in the selected banks.
- To identify opportunities in selected banks for the use of e-banking technology.

### **1.5 Scope and Limitation of the Study**

The study was only included surveying for the purposefully selected banks. Three private commercial banks deliberately selected, with the exclusion of other banks, in order to better comprehend the study's goal. These banks closed from among all of Ethiopia's banks based on their experience with e-banking technology, or more specifically, the length of time they have spent serving the public by offering e-banking products, first for installing the e-banking system and introducing new technology. On the limitation, the results of this study may not be applicable to all banks as a result of the purposive sample method's reduction in the generalizability of the findings. Additionally, the study evaluated and determined how E-banking has been implemented in selected banks with regard to:

- Challenges during implementation
- Benefits they gained
- Driving forces in the implementation and
- Opportunity from the banks perspective. As a result, the survey will concentrate on the views of bank personnel and exclude those of customers or the general public.

### **1.6 Significance of the Study**

The study's goal is to evaluate the advantages experienced by those selected banks, as well as the implementation of e-banking technology in the study will be significant in the following conducts commonly:

- ✓ Although if Ethiopian e-banking technology is still in its infancy, understanding the advantages and disadvantages of its application may assist banks that are interested in implementing or have already implemented e-commerce perform better.
- ✓ Will provide bank managers and decision-makers a chance to evaluate the potential and difficulties in the current practices in order to make the necessary adjustments or to accelerate any favorable aspects for the implementation of e-banking activities.

### **1.7 Organization of the study**

There are five chapters in the paper: The background of the study, the problem statement, the research questions, as well as the objectives and significance of the study are all covered in chapter one. Chapter two, literature studies are gathered in order to learn crucial details about e-banking. In Chapter 3, the specifics of the methodology and also Included the study design, sampling, sampling procedures, and data processing techniques. Chapter 4 contains data presentation and analysis and finally chapter five contains finding, conclusion and recommendation.

## **CHAPTER TWO**

### **REVIEW OF LITERATURE**

This chapter's aim is to review the literature on e-banking implementation, with a particular emphasis on the use of e-banking technology. A framework for the study can be established by this review of the literature.

#### **2.1 History of E-banking**

E-banking has grown from virtual obscurity to tens of millions of users globally since the late 1990s (OECD, 2004). Yet, various generations of electronic transactions have given rise to e-banking. Many generations of technologies, including automated teller machines (ATMs), phone banking, PCs, and house banking, have evolved into the web-based Internet we use today. Automated teller machines (ATMs) were the first widely used devices to provide customers with electronic access, whereas phone banking entails customers phoning their bank's computer system on a standard phone and utilizing the phone keypad to complete financial operations. Customers could now speak with their bank using a computer linked to the phone network via a dial-up modem thanks to PC banking, which replaced phone banking. Phone and Computer banking involved upkeep fees related to staying current with various modems and avoiding prohibitively difficult installation processes. E-banking has the potential to lower maintenance costs because it uses a web browser as the user interface and the Internet for data transfer and software downloads. E-banking offers users' up-to-date information, seven days a week, and round-the-clock access to banking services. Transferring money between one's own accounts, paying bills, and checking account balances are the main services offered by e-banks. These basic services are being supplemented with loans, brokerage, share trading, service bundling, and a variety of other financial services. A lot of people utilize e-banking, among other things (Dewan & Seidmann, 2001).

#### **2.1 E-banking defining**

Depending on how they perceived the use of electronic banking, many authors have characterized it in various ways. According to Nigerian author and Dean Timothy (2012), Electronic banking is the use of the Internet as a distant supply channel for services like opening a deposit account, transferring money between accounts, and presenting and paying bills electronically.

Satheye (1999) noted that the following platforms can be used to design electronic banking: Internet banking, telecom banking, Tele media banking, mobile or cell phone banking, and SMS offline banking. In current time banking industries implementing additional new arrivals electronic banking: virtual

banking, finger print ATM banking, face recognition banking.

E-banking according to Daniel (1999), is the practice of allowing consumers to execute financial transactions on a secure website run by their online or offline bank, financial institution, or commercial bank. This implies that e-banking is a service that enables a financial institution's website to be accessed via a personal computer, enabling account holders to manage some banking transactions and obtain account information.

In what can be regarded as business to consumer purview for balance enquiry, request for cheque-books, stop payment instruction, balance transfer instruction, account opening and other forms of traditional banking services. Banks are also proposing payment services on behalf of their customers who shop indifferent e-shops.

With electronic banking, users can start transactions (payments, transfers, requests for services, loan, fund etc.) with a bank or other financial service provider at a distant using a computer to retrieve and process banking data (statements, transaction details) (Mallak, 2007).

According to Bhosale (2013) Electronic banking as a substitute provision channel, offers many opportunities for the growth and development of financial institutions. E-banking offers financial services to its customers through the internet. The most important electronic channels in e-banking are the Internet, wireless communications networks, Automatic Teller Machines (ATMs), phone bank (Schaechter and Ugolini, 2002), cell phone, fax, and sales terminal and booth (Fathian, et al. 2009).

## 2.2 Features of E-banking

Plastic cards (debit, credit, and prepaid cards), personal computers, telephones, mobile phones, the internet, ATMs, and POS (point of interaction) devices are the instruments and channels used to carry out e-banking (Morufu and Taibat, 2012). The following are descriptions of the tools and channels described above:

### A. Plastic made cards

- **Credit Cards:** Unlike debit cards, which deduct funds from the user's account following each transaction, credit cards do not. By using a credit card, the issuer lends the user money to be paid back to the Using a credit card entitles the user to roll over their balance in exchange for paying interest. The cardholder, card issuer, merchant, acquiring bank, independent sales organization, merchant account, credit card association, transaction network, and affinity partner are the parties engaged in a credit card transaction.
- **Debit cards:** are banking cards with added POS and ATM capabilities that enable use at merchant



locations. You can only spend the money in your bank account when using a debit card. The transaction between the merchant and your individual bank account is swift. When a debit card is linked to an individual's account, money can be taken out at an ATM or point of sale without having to write a check. By using a debit card to make a transaction, the money is taken directly out of the cardholder's checking account. Online and offline debit cards are two different kinds of debit cards. The debit is delayed when using an offline debit card. Using a debit card has advantages over using cash, such as speeding up and simplifying the payment process at the checkout counter, removing the need to carry large amounts of cash and a chequebook, using it in places where personal checks are not accepted, and decreasing the risk of cash loss or theft (Okoye, 2013).

- **Prepaid debit cards:** These debit cards are typically not connected to a consumer. Prior to use by cardholders, they must be funded. Cash cards, value cards, "Birr cards," and other names are used to identify prepaid debit cards. Gift cards, student ID cards, government payment cards, payroll cards, bursary cards, insurance cards, travel cards, etc. are all examples of uses for prepaid cards.

**B. ATM card:** Computerized telecommunications equipment called an automated teller machine (ATM) gives a customer of a financial institution a place to conduct financial transactions in a public setting without the need for a human clerk or bank teller. Customers can check their account balance and withdraw cash by using an ATM to access their bank accounts. ATMs depend on the card issuer or another authorizing organization approving a financial transaction across the communications network. Many banks impose transaction fees for using ATMs.

**C. POS reader card -** The method enables customers to use a check card—a new term for a debit card—to pay for retail purchases. Although this card has a noticeable distinction, it resembles a credit card. The debit card holder's account promptly transfers the amount of the purchase to the retailer's account (Malak, 2007).

**D. Internet Banking-** "Internet banking" is the term used by Booz, Allen & Hamilton (1999) to describe systems that allow bank clients to access accounts and general information about bank products and services using a personal computer (PC) or other intelligent device.

**E. Mobile banking:** can be characterized as the situation in which users of cellular phones, pagers, personal digital assistants, or equivalent devices access a bank's networks via telecommunication wireless

networks (Segun, 2011). It involves engaging in banking operations, which essentially involve opening and maintaining regular and mobile accounts and receiving deposits.

**F. Tele-banking:** Habibur, Mohammed, and Sayeed (2012) state that telephone banking service is offered. There are several service alternatives and a specific phone number that must be dialed in order to access an account. Checking account balances, money transfers between current, savings, and credit card accounts, and more are available. Information about loan payments; Bill payments; Stock exchange transaction; Obtain statement by fax.

### 2.3 Implementation of innovation

As a result of the incredible advancements in information technology and the steadily increasing amount of information, the world is currently experiencing significant alterations and acceleration that have given rise to new kinds of activities and transactions in numerous industries (Joseph N., 2005). One of the first industries to use various electronic applications to boost efficiency and gain a competitive edge was the banking industry. The financial services sector and banking have offered new systems and applications that maximize the use of contemporary technology and are now readily available in light of the extensive usage of information and communication technologies (Francis, 2014). The rate of adoption, according to Rogers (1983), is the proportional rate at which members of a social group adopt new behaviors.

### 2.4 Risks of Electronic Banking

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

- **Business Risk:** - E-banking involves a large amount of business risk. Due to the budding nature of e-banking, it is unclear how e-banking users will differ from those who use traditional banking services. It's possible that they have different qualities. This might make the score card models that are now in use incorrect, leading to either greater rejection rates or improper pricing to account for the risk. Banks might not be as proficient at determining credit quality remotely as they are in person. At a distance, assessing the kind and caliber of given collateral from a distance may be more challenging; especially if it is situated in a place the bank is unfamiliar with particularly if this is overseas.
- **Operational risks** Banks are exposed to three key categories of operational risk, including outsourcing, management information systems, and volume estimates. Proper volume forecasting has proven to be challenging; managing the volume of customers that banks will acquire is one of their biggest concerns. Many banks that went online greatly underestimated volume. If additional systems that are

poorly built or tested are brought online to address the capacity issues, a bank that lacks the necessary systems to handle demand may suffer reputational, financial, and even security risks. Information management systems are at risk under the second category of operational risk. Once more, this is not a feature of online banking. Banks may encounter challenges obtaining the necessary management information to monitor their eservice, even while it can be difficult to establish/configure new systems to ensure that sufficient, usable, and clear information is provided. Such data is especially crucial in a developing industry like e-banking. Finally, a sizable proportion of banks that provide e-banking services outsource related business operations, such as security, either to cut costs or, as is frequently the case in this industry, because they lack the necessary internal competence.

By potentially diminishing a bank's control over that operation, outsourcing a significant function can result in material risks. Security hazard: Everyone, both inside and outside of the financial industry, is extremely concerned about security issues. By possibly exposing previously isolated systems to dangerous situations, e-banking raises security vulnerabilities. In general, security breaches can be divided into three categories: those committed with serious criminal intent (such as fraud or the theft of financially or commercially sensitive information), those committed by "casual hackers" (such as website defacement or "denial of service" attacks that crash websites), and those committed as a result of flaws in system design or setup (such as when legitimate users are able to see or conduct transactions on other users' accounts). These dangers could all have detrimental effects on finances, legal matters, and reputation.

- **Strategic Risk:** - Because e-banking is still relatively new, senior management may not be aware of all of its potential. The projects can end up being led by individuals who have technical skills but lack banking expertise. E-initiatives may come seen as fragmented and unclear in businesses. They can be expensive and don't always pay for themselves. Furthermore, despite the fact that they are typically promoted as loss leaders in an effort to increase market share, they may not attract the clients that banks desire or predict, and they may have unintended consequences on present business lines.

- **Security:** - Security concerns are shared by all, especially when they relate to the financial industry. E-banking is susceptible to security lapses such fraud, data theft involving sensitive financial or commercial information, vandalism of websites, denial-of-service attacks, and flaws in system configuration that lead to security lapses. All of these security flaws could have negative financial, legal, and reputational outcomes.

- **Risk to reputation:** For banks that use the Internet, this is far worse. For instance, the Internet makes it possible for knowledge to spread swiftly, making any incident—whether positive or negative—soon become well-known. Online rumors have a tendency to materialize into true events. The speed of the Internet massively reduces the optimal reaction times for banks and regulators to respond to any crises. Banks must ensure that their crisis management procedures can handle internet-related difficulties. Whatever challenges a firm may experience in this new environment could affect both its business and consumers' trust in the Internet. There is therefore a potential that one bad e-bank might have a significant negative impact on all banks that provide. E-banking risks exist in addition to legal concerns without sufficient legal assistance, money laundering may be affected, for example, strategic risks, credit risks, market risks, and liquidity hazards. Thus, it is crucial for banks to identify pertinent risks and develop and implement appropriate risk mitigation policies and procedures when conducting E-banking. The most significant security risk to the network system is the FSA.

## 2.5 Empirical Studies Related with E-banking implementation

Many related studies have been carried out by several researchers in numerous nations. Yet, very few studies on the implementation and advancement of technological innovation, particularly in e-banking services, have been out in Ethiopia. Specifically, exploration was done by Dagmawit K. (2021) on the advantages and disadvantages of e-banking in Ethiopia. Her study's objective was to assess the current state of electronic banking in Ethiopia and to investigate the main challenges and opportunities associated with putting electronic banking into practice. The use of the E-banking system is hampered by a number of factors, including the lack of adequate legal and regulatory frameworks for E-commerce and E-payments, political unrest in neighboring countries, high rates of illiteracy, and the absence of financial networks that link different banks, according to a survey the author conducted on how banks currently operate. Research on the elements influencing the adoption of electronic banking services was also done by Genet Y. in 2021. Based on information acquired from the Commercial Bank of Ethiopia (CBE), the study was carried out. According to the study's findings, security risk, lack of trust, the main barriers to the Ethiopian banking sector adopting electronic banking include a lack of a legislative and regulatory framework, a lack of ICT infrastructure, and a lack of competition between domestic and foreign banks. The study also found perceived utility and simplicity of use as factors in e-banking system implementation.

The banking sector was cautious to deploy e-commerce apps because they thought that outside of their

control, hackers and viruses may compromise electronic transactions. They discovered that a lack of top-notch training programs is another barrier to the adoption of electronic commerce technologies.

In order to understand the problems preventing bank customers in Nigeria from adopting e-banking, Auta (2010) conducted a study. The results showed that among the key factors preventing consumer adoption of e-banking are concerns about safety, accessibility issues, lack of infrastructure, such as facilities for power and communications, and awareness about the service. Similar to Anwana (2010), he acknowledged in his research that the main barriers to the adoption of e-banking are inadequate security, a lack of knowledge of the technology's use, inadequate and deteriorating telecommunication facilities and infrastructure, inadequate public power supply, a lack of trust, poor people's economic conditions, and a lack of confidence by the people in the technology. Angela and Mihiotis (2011) investigated the opportunities and constraints associated with e-banking in Greece. The major conclusions show that banks increase their use of e-banking services to stay competitive, keep up with technical advancements, and profit from e-banking transactions' lower transaction costs. The adoption of security and data protection measures and the poor response rate from clients are their two biggest issues.

### **2.5.1 Challenges of E-banking**

The very inadequate information and communication infrastructure present in the majority of developing nations is responsible for the most serious problems, though. Causes differ greatly between industries and nations, but they are typically motivated by a lack of business relevance and a preference for well-established business structures (OECD, 2004). Enabling factors (access to ICT skills, qualified personnel, and network infrastructure), cost factors (ICT equipment and networks, software, and reorganization), security and trust factors (security and dependability of e-commerce systems, uncertainty surrounding payment methods, legal frameworks, and intellectual property rights), and challenges in the areas of management skills, technological capability, productivity, and competitiveness are a few of the more frequent challenges. Adoption of e-commerce was further hampered by a lack of trustworthy trust and redress systems and by international legal and regulatory variations (OECD, 2004). It is crucial to remember that depending on the organizational type and culture, different barriers to e-commerce adoption may arise.

According to the study done by Isaac (2005), security, the human face (i.e., customers still value personalized and responsive services from their bankers), poor and/or lack of technological infrastructure, especially in the rural areas, a lack of proper legislation governing e-transactions, a preference for paper money over "virtual" cash in transactions, etc. are the challenges for the adoption of E-banking in Africa.

E-commerce issues were further broken down by Ziad (2009) into three categories: economic, socio-political, and cognitive. The dissemination of e-commerce is hampered by a number of economic barriers, such as poor internet adoption, the absence of credit cards, the absence of a physical delivery system, and limited bandwidth availability.

- Government rules including privacy and security, a lack of e-commerce business laws, and a lack of legal backing are all factors in the socio-political issues. Inadequate awareness, knowledge, skills, and confidence; a lack of awareness and understanding of potential opportunities; a lack of confidence in service providers and the postal network; and computer illiteracy are a few factors that contribute to a negative cognitive assessment of e-commerce by people and organizations. According to Japheth and Usman (2010), the following particular issues prevent poor nations from adopting e-commerce:
- These countries struggle with a lack of easy payment options, a shoddy distribution system, a broken legal system, a lack of broadband transmission capacity, and Internet security.
- Access to technology (computers, connectivity, and Internet gateways), which limits the ability to handle audio and graphic data, inadequate telecommunications infrastructures, and unstable electricity are three additional significant constraints.
- Most consumers in developing nations cannot access the Internet because of the high cost. The cost of using the infrastructure has an impact on how quickly e-commerce develops. The majority of developing nations have made building the required infrastructure, as well as establishing a competitive environment and legal framework that support affordable Internet access, their top priorities. A sizeable section of the population cannot afford the monthly connection fee for Internet access.
- Another crucial prerequisite for secure electronic trading is confidence and trust. A hurdle to the adoption of e-commerce in developing nations is the geographic distance between buyers and sellers, which is frequently combined with a lack of real-time oral or visual communication. Another significant obstacle to e-commerce is language. In emerging nations, the majority of the population is uneducated and illiterate. Also, English is a widely utilized first language in many Western nations where new technologies are developed. It is the primary language used on the Web and is utilized extensively in the development of IT and e-commerce. The study also discovered a number of socioeconomic factors that prevent emerging nations from adopting e-commerce. The most prevalent ones include negative economic conditions, a deficient educational

system, a lack of Technology and business skills, shoddy payment infrastructures, ineffective logistics and distribution networks, and bad transportation. The following are some of the major obstacles to the adoption of e-banking in Nigeria, according to an exploratory study done by Alhaji Ibrahim H. (2009): -

- The absence of technology infrastructure—the absence of ICT infrastructure makes it difficult to execute e-payment. The bulk of rural areas, which are home to small and medium-sized companies, lack internet connection.
- Expenses for ICT equipment are an important consideration in relation to per capital revenue, provided they are accessible. As a result, entrance is more expensive than in industrialized nations.
- Issues with Regulation and Law - Lack of an appropriate legal and regulatory framework.

Also, a study by Eze and Nwankwo (2012) found that Nigeria faces the following major difficulties when implementing and growing e-banking technologies:

- Consumer Protection: - The issue of providing adequate protection for banking product consumers from the many hazards to which they are exposed is one of the main obstacles to the development of e-banking. Financial loss, card or terminal malfunctions, as well as the potential for unlawful information disclosure without the consumer's agreement, are among the hazards. The difficulties in this situation range from customer information being taken from the suppliers' databases to a false customer selling up a counterfeit website to trick other unsuspecting clients.
- Loss of Audit Trail: As company procedures change as a result of internal banking, personal computers, and telephone banking, this is another issue with e-banking. The audit trail essentially makes it possible to track transactions through a financial environment, which makes it easier for managers to determine if the data in the master file is reliable or not.
- Financial Transaction Security: - The security of online banking is subject to several dangers. One of these threats is the uncertainty and lack of confidence surrounding internet banking, which can only be overcome by a skilled web developer who can set up the necessary firewalls so that only legitimate customers can access it. The risks that hackers may intercept messages, misuse the information, or manipulate the message's content are the ones that are most usually brought up when discussing security breaches in e-banking.

- E-potential banking's risks include: Systems for electronic payments and delivery carry a variety of possible dangers. Due to the increasing speed at which systems function and the extensive access in terms of geography, user group, applications database, and auxiliary systems, using an electronic channel to supply goods and services brings certain hazards. The nation's banking system's safety and soundness are significantly impacted by the potential hazards brought on by e-banking.

## **2.5.2 Benefits of E-banking**

Electronic banking gives customers more power to rapidly and simply compare costs from different providers, which drives down prices and margins. Kerem (2003) noted that various banks have varied approaches to using electronic banking, and that those who regard it as an addition to and replacement for old channels have greater client interaction and communication. Additional gains from the implementation of electronic banking in industrialized nations include the capacity to draw new clients and expand the client base, enhance bank marketing and communication, and have the capacity to keep lucrative clients (Farshad et al., 2013).

According to Humphrey et al. (2001), there is potential for a wide range of goods and services to be offered globally over the internet or other electronic networks, and the introduction and use of E-payment methods holds the promise of broad benefits for both business and consumers in the form of reduced costs, increased flexibility, and more safe, reliable means of payment and settlement. According to Cobb (2005), electronic payments offer a wide range of economic advantages in addition to ease and security. When these advantages are fully utilized, they can significantly aid in a country's economic progress.

According to Harrison (2012), there are five commercial advantages of e-banking. The first is that businesses may broaden their geographic reach. Second, more effective procurement, production, and logistics procedures have significant cost advantages. Finally, there is a lot to gain from better customer management and communications. Fourth, the internet lowers entry barriers for new market entrants and gives small businesses the chance to realign their supply chain linkages in order to create fresh strategic alliances. Lastly, e-commerce technology makes it easier to create new product categories and business models that may generate income in a variety of ways and from a variety of revenue sources.

### **2.5.2.1 Benefit of E-banking for Banks**

The following are the main advantages of electronic banking, according to Jayewardene & Foley in 2000: In the long term, a bank can save money by avoiding paying for tellers or branch management costs. Also, conducting business online is less expensive.



- **Effectiveness:** By giving their clients' access to the Internet, banks may increase the efficiency of what they already do. The bank has access to a virtually paperless system thanks to the Internet.
- **Client base:** Because the Internet has no physical bounds, banks may now access a completely new market, one that is also wealthy. For small banks looking to expand their customer base, the Internet also offers a fair playing field.
- **Image:** If a bank offers Internet banking, customers will perceive it as more modern. Even if a customer doesn't wish to utilize Internet banking, the service's availability makes them feel as though their bank is cutting edge.
- **Customer Service Satisfaction-** Customers who conduct their banking online can access the complete range of services as well as others that are not available at any of the locations. No need to visit a branch where the service might or might not be provided. Instead than standing in line and asking a teller for information, a person may quickly look for information on the Internet, print information, forms, and applications, and conduct efficient information searches. A bank will be able to improve client relations and increase transaction volume with better and faster choices.

#### 2.5.2.2 E-banking benefits for customers

The automation of banking service processing and the introduction of simple maintenance tools for managing clients' money are the key advantages from the perspective of bank customers, since they significantly reduce the amount of time spent on each task. According to BankAway (2001; Gurău, 2002), the major benefits of e-banking for business clients are as follows:

- **Improved cash management:** Due to the wide array of cash management tools that are accessible online, e-banking services hasten the cash cycle and boost corporate process efficiency.
- **Access to information quickly and continuously** will be made easier for businesses thanks to the ability to check on several accounts at once.
- **Lower fees for utilizing and obtaining financial services.**

According to Bank Away (2001), the following are the key advantages of using E-banking for private customers: -

- **Speed:** Because the media responds so quickly, clients can potentially put off making a purchase until the very last moment.
- **Convenience:** Customers may conduct all banking transactions from the convenience of their home, workplace, or other preferred location.

- Cost savings: This refers to the price of using and accessing the different financial goods.
- Funds management: Before making any online transactions, customers can download the history of their various accounts and do a "what-if" analysis on their own computer. This will improve financial management.

The advantages of electronic banking have been greatly enjoyed by the general public and the banking system, as was already indicated. As both a result, a better enabling environment has been created that encourages development, production, and wealth. In addition to many other concrete advantages like cost savings, shortened delivery times, higher efficiency, and less waste, an electronically controlled and meticulously monitored banking environment would deter many illegal and unethical practices related to the banking industry, like money laundering, frauds, and embezzlements. E-banking has also made it possible for banks to keep a closer check on their clients. This is a valuable tool the bank has at its disposal for developing suitable commercial packages that adhere to customer criteria.

### **2.5.3 Drivers for Implementation of E-banking Technology**

As was already mentioned, the public and the banking sector have reaped the benefits of electronic banking to a large extent. A better enabling environment that encourages development, production, and prosperity has been produced as a consequence. A thoroughly monitored and electronically controlled banking environment would deter many illegal and unethical practices related to the banking industry, such as money laundering, fraud, and embezzlement, in addition to many other tangible benefits like cost savings, shortened delivery times, increased efficiency, and reduced waste. E-banking development has improved bank client base monitoring. This is a valuable tool the bank has at its disposal for developing suitable commercial packages that adhere to customer criteria.

### **2.6 E-banking Challenges in Ethiopia**

Sectors like banking and finance are crucial to the development of e-commerce. Online corporate banking, electronic cash transfers, automated teller machines (ATMs), debit cards, credit cards, facial recognition, fingerprint banking, etc. are some of the roles played by the banking industry in e-commerce. The only entity that is permitted to store and handle money is a bank. The banking industry has undergone technological advancements that have made trading considerably simpler and less expensive for customers. In terms of money, effort, time, and all the resources required to complete a transaction, it offers convenience (Uppal, 2008). Before Ethiopian banking can fully implement e-banking, there are many obstacles to overcome. The problems put forth by the research findings examined by Wondwossen and Tsegai (2005) include:

- Absence of an appropriate legislative and regulatory framework for electronic payments and commerce: Ethiopia's present laws do not permit electronic contracts or signatures. E-commerce-related legislation has not yet been passed in Ethiopia.
- Internet usage is minimal, and the telecommunications infrastructure is inadequate.
- E-commerce cannot grow and flourish without sufficient telecommunications, Internet, and digital payment infrastructure.
- High prices for internet service: Considering the cost of Internet connection in relation to per capita income is important. Ethiopia has greater entrance barriers to the e-commerce business than industrialized nations do. High start-up expenses, expensive computer and telecom expenditures, and license restrictions are a few of them.
- Political turmoil in allied countries: Political and economic turmoil in Somalia, Southern Sudan, and Eritrea pose a threat and also don't create the best circumstances for e-banking.
- Financial networks connecting various banks don't exist because banks haven't automated yet.

Nowadays, Visa and MasterCard-issued credit and debit cards are used in the majority of financial transactions. The usage of credit or debit cards is required for performing e-banking, necessitating the requirement for specific technologies, which are not yet available.

## **2.7 Knowledge Gap**

Electronic banking services are extensively documented elsewhere. Yet, there is minimal evidence of e-banking in underdeveloped nations like Ethiopia. In terms of e-banking, numerous studies have been conducted on internet banking, mobile banking, and contemporary service delivery channels in various nations worldwide. According to the researcher's understanding, just a few studies on E-banking in Ethiopian banking have been undertaken, such as those of (Genet Y, 2021), (Dagmawit K. 2021), and (syuum B. 2012). In order to assess the current activities of electronic banking implementation by the chosen three commercial banks in Ethiopia, this research will take into account a number of additional factors, including the number of commercial banks, the end users of the banks (ICT and E-banking departments), the range of consistency of electronic banking in the market (banks' marketing and business development departments), the effects of privacy and security, and the availability of transactions implemented.

## **2.8 Conceptual Framework**

For the implementation of e-banking operations as well as other technical breakthroughs, researchers employ several frameworks. The technology-organization-environment (TOE) framework, the

technology acceptance model (TAM), the theory of planned behavior (TPB), the innovation diffusion theory (IDT), and the theory of reasoned action (TRA) are among the frameworks that have been produced in various studies.

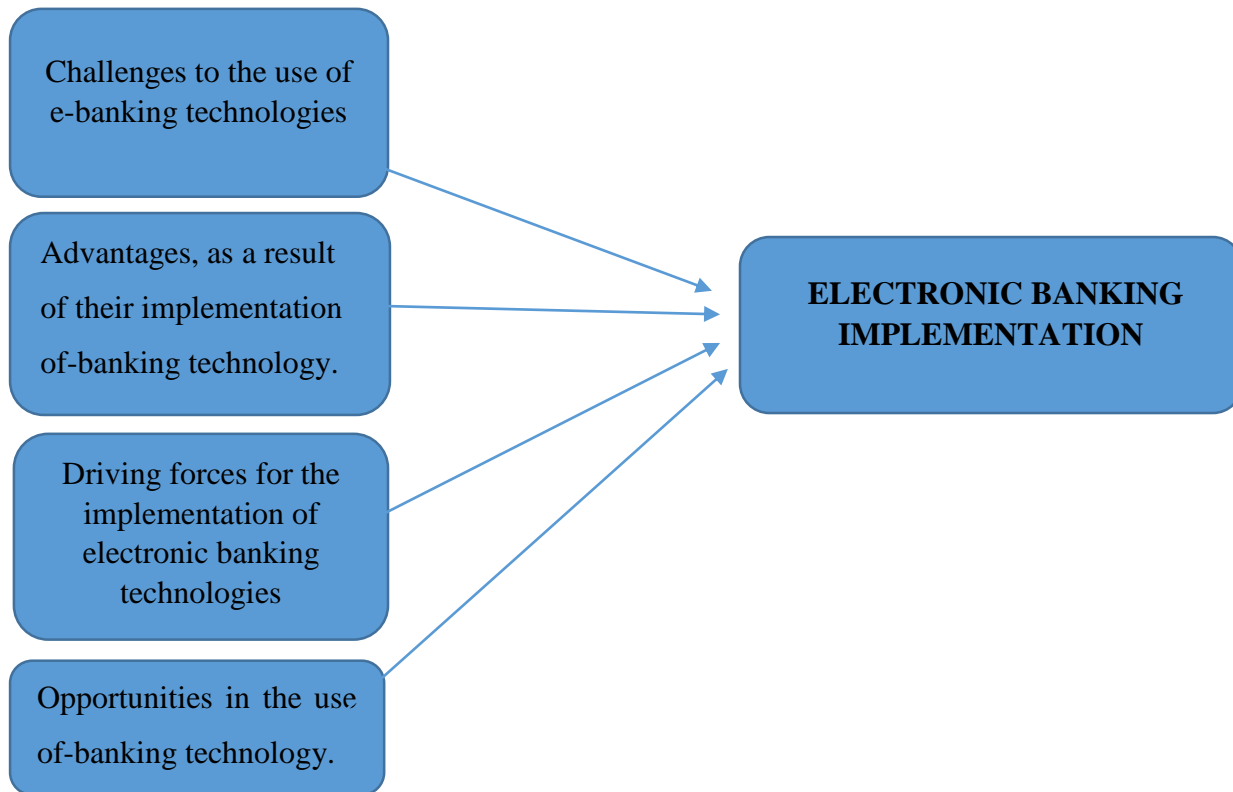


Figure 2.1: Conceptual framework of the study

Source: - Modified by researcher

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

The proposed approach that used to address the problem and find the answers to the research questions described in this chapter. The chosen study design, research methodology, and chapter topic are presented at the outset. The procedures for choosing the sample and gathering the data discussed below.

#### 3.2 Research Design

Descriptive research is a branch of study that focuses primarily on outlining the specifics of the current situation, including its nature, condition, and level of information. According to Creswell (2003), the descriptive approach of research is used to learn more about the current or existing condition.

The primary goals of this study are to characterize the problem's current status, address the research questions, which take the form of “what” and pinpoint the crucial factors that are most important for Ethiopia's e-banking implementation. This study also aims to assess current e-banking practices and describe how banks implemented them. Descriptive research is utilized to accomplish the research objective.

#### 3.3 Research Approach

The researcher used a quantitative research strategy to carry out the goals of the study and respond to the research questions.

#### 3.4 Study Area

The city of Addis Ababa, which served as the study region, is home to all the central bank and the corporate offices of those three selected banks, which jointly operate all of theirs, branches. These main offices, which are in Addis Ababa, are also home to the E-banking experts for each selected bank.

#### 3.5 Population, Sample Size and Sampling Techniques

The researcher purposefully selected three private commercial banks that have used E-banking technology as a sample group for this investigation. These institutions are Dashen Bank S.C. and Abyssinia Bank S.C. and Zemene Bank S.C. These banks choose from among all of Ethiopia's banks based on their experience with e-banking technology, or more specifically, the length of time they have spent serving the public by offering e-banking products, first for installing the e-banking system and introducing new technology. Also, data collected from every feasible division of those three banks. As a result, a purposive selection method used to choose the sample for this research paper from the general

population.

The sample size is a smaller set of the larger population as indicated by Cooper and Schindler, (2006). Determining sample size is a very important issue for collecting an accurate result within a quantitative research design. Thus Mugenda, (2003) argues that the sample must be carefully selected to be representative of the population. Therefore, this research selected the simplified formula for proportions developed by Yamane T (1967:886) to calculate the sample size with 95% confidence level, 0.05 degree of variability and 5% of level of precision/sampling error.

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

Where n is the sample size, N is the population size and e is the level of precision.

On January 2023 staff data of those 3 banks workers have a total of 531 employees out of which 170 employees are found works in the 3 banks ICT departments of their head office.

According to Kothari, (2004) the size of the sample drawn from the population should be less than the total population. Therefore, the total sample size is:

The sample is determined as;

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

$$n = \frac{170}{(1 + 170(0.05)^2)}$$

$$n = \frac{170}{1.425}$$

$$n=119 \text{ (rounded)}$$

### 3.6 Sources of Data

Data gathered for the study from primary sources. Employers of commercial banks surveyed in order to get primary data using a questionnaire that was carefully constructed. It featured closed-ended questions, giving the responders the chance to express their opinions on the questions in a way that was appropriate. primary data collected from each selected three private banks at the head office level in order to obtain adequate and trustworthy data that adequately represents the entire branch of the chosen commercial banks.

### 3.7 Data Collection Instruments

questionnaires are developed by the researcher in order to collect passable data to answer the research questions. The survey that are produced results and information gathered with e-banking department managers.

#### 3.7.1 Questionnaires

The questionnaire is implemented meanwhile the researcher thinks that respondents can fill it out whenever it is most convenient. Based on the research themes and the literature, the researcher designs the questionnaire. The questionnaires the researcher used, both open-ended and closed-ended, allow respondents to effectively express their opinions. An initial paragraph of the questionnaire states that the research is solely academic in nature. Since respondents are guaranteed confidentiality, they are urged to provide unbiased comments.

There is open-ended and closed-ended questions in the format for responding before the survey is conducted. The participants urged to respond honestly, to provide improvements suggestions, and to explain any difficulties they encounter. After completing each questionnaire, the significance of each question were clarified by contrasting possible responses. The respondents asked to score how much they agree or disagree with the following statements on a five-point Likert scale: There are five options: strongly agree (DA, or 2), strongly disagree (DA, or 2), agree (A, or 4), and agree (S, or 5). (SD, or 1).

### 3.8 Data Analysis Method

As a result, descriptive statistics utilized to analyze the information acquired through surveys using the Statistical Software for Social Scientists (SPSS) version 28.0. Also, qualitative research is inherently interpretative, according to Wolcott (1994), who Creswell (2003, p. 184) cited. This means that the researcher interprets the data. As a result, the information gathered during the interview and document evaluations qualitatively analyzed. In order to achieve convergence among the outcomes, the interpretation of qualitative data and the analysis of quantitative data are combined (Creswell, 2003).

#### 3.8.1 Reliability of data collection instrument

Reliability is concerned with the question of whether or not a result is stable Rathmell J.M. (1966). And also (George & Mallery 2003) provide the rules of thumb that indicates  $\geq 0.9$  – Excellent,  $\geq 0.8$  – Good,  $\geq 0.7$  – Acceptable,  $\geq 0.6$  – Questionable,  $\geq 0.5$  – Poor, and  $\leq 0.5$  – Unacceptable to measure the consistency of the questionnaire.

Table 3.1 Reliability Test

		Case Processing Summary	
		N	%
Reliability Statistics	Cases	Valid	119 100.0
		Excluded	0 .0
		Total	119 100.0
Cronbach's Alpha	N of Items		
	.932	36	
Source : own survey			

Hence the Cronbach’s alpha coefficient of this thesis questionnaire is 0.932 which indicates it is the rank of GOOD. We can conclude that the response of the respondent was believed to be reliable, which is tested by SPSS model version 26.

**3.8.2 Validity**

Validity refers to the degree to which a study precisely reflects or assesses the specific concept or construct that the researcher is trying to measure. Content validity will show the extent to which the survey items and the scores from these questions are representative of all the possible questions about the company’s electronics’ banking implementation activities. The questionnaire has been tested through a pilot test, and also examined by the assigned advisor. This helped to assess whether the survey questions seem relevant to the subject it is aimed to measure, if it is a reasonable way to gain the needed information.

**3.8.3 Ethical Considerations**

The respondents’ willingness to participate in the study of researcher work is respected and verbal consent was being taken. Name of participants or employees were not mentioned in the report without consent in any case. The strategic approaches of computational information collected were not included in the report. It is confidential.

To assure that, the three banks’ officials close consultation was implied. Any information that can be found spoiling the goodwill of the factory as well as the reputation of the banks are not included in the report the researcher keeps all secret information



## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

In this section, the collected data results discussed and analysed and the questionnaires initiated with four major variables data and introduction to the implementation of electronics banking by the banks on company's survey. Hence, the rest of questions was designed as follows. 12 Questions encompass " Usage of e-banking implementation" 13 Questions cover respondents answers on the "Benefits of e-banking". 7 questions associated with "Driving force (drivers) of e-banking" and finally 4 Questions encompass about "Opportunity of e-banking."

#### **4.1 Assessment of electronic banking implementation by selected commercial banks in Ethiopia.**

##### **The responses of the employees' questionnaire survey**

These sections were presented and discussed the responses of employees' questionnaire and some of collectively analyzed responses (ICT department) were connected with the questions related to measure the implementation of e-banking by the selected commercial banks: in the case of those three banks. There are 36 statements and the respondents are requested to tick the level of agreement or disagreement, based on their usage of e-banking implementation 12 question, benefits of e-banking 13 questions, driving force of e-banking 7 questions and opportunity of e-banking 4 questions on banks' e-banking activities and different factors affecting those activities. The following tables were presented all statements and the answers of the respondents.

Survey scale: 1=strongly disagree, 2= disagree, 3= neutral, 4 = agree and 5=strongly agree. Response Category: strongly disagree (1.50 or less), disagree (1.51-2.50), neutral or no opinion (2.51-3.49), agree (3.50-4.49) and strongly agree (4.5 or greater). According to Zedatol (2008) mean score 3.80 is consider high, 3.40-3.79 is moderate and below 3.39 is low cited by Oumer Mohammed (2012, p. 44). All data was analyzed by using mean value of the factors. Those mean values are interpreted as follows.

Mean Value Level of Effectiveness Mean value between 4-5 highly effective Mean value between 3-3.999 Effective Mean value between 2 -2.999 Ineffective Mean value below 2 highly Ineffective The level of effectiveness for each factor of the questionnaire was analyzed using mean and standard deviation. The relationship of effectiveness of e-banking implementation and the variables;

The question the respondents were requested to put their point of view in related of the four factors. There sequentially one being their usage of e-banking implementation, benefits of e-banking, driving force of e-banking and opportunity of e-banking on the banks.

#### 4.1.1 Examines the challenges to the use of e-banking technologies in the selected banks

Table 4.1 Descriptive statics of usage of e-banking implementation

Item		(SD)	D)	(N)	(A)	SA)	Total	Mea n	Standard deviation
Q1.1 inadequate client knowledge of the e-banking product	F		4	1	36	82	119	4.68	.486
	%		3.4	8	30.3	68.9	100		
Q1.2 A technical specialist understands how to use emergin e-banking technology.	F		2	80	33	4	119	3.33	.569
	%		1.7	67. 20	27.7	3.4	100		
Q1.3 There is high implementation costs for e-banking (including restructuring, software, and ICT network costs)	F	92	4	1	10	12	119	1.71	1.398
	%	77.3	3.4	8	8.4	10.1	100		
Q1.4 The top management is concerned about the developing technical revolution in e-banking.	F	78	33		2	6	119	1.53	.981
	%	65.5	27. 7		1.7	5.0	100		
Q1.5 There is regulatory framework for e-banking implementation of new technological breakthroughs in the bank's operations.	F	66	34		3	16	119	1.90	1.368
	%	55.5	28. 6		2.5	13.4	100		
Q1.6 There is Low levels of computer literacy among customers	F	105	6		4	4	119	1.29	0.903
	%	88.2	5.0		3.4	3.4	100		
Q1.7 There is an adequate ICT infrastructure from the	F	5	13	95	1	5	119	2.90	.669
	%	4.2	10. 9	79. 8	0.8	4.2	100		

supplier (government or private sector).									
Q1.8 The Bank's transaction network systems connect with various institutions.	F	7	10 2	5	3	2	119	2.08	.591
	%	5.9	85. 7	4.2	2.5	1.7	100		
Q1.9 There is frequent power outages affecting the performance of e-banking.	F	7	10 4	2	3	3	119	2.08	.632
	%	5.9	84. 4	1.7	2.5	2.5	100		
Q1.10 Requirement of the law makers for banks to use a standardized platform.	F	7	10 5	2	1	4	119	2.08	.640
	%	5.9	88. 2	1.7	0.8	3.4	100		
Q1.11 Banks are concerned about security and safety issues (hackers, malware, etc.).	F		2	79	31	7	119	3.36	.621
	%		1.7	66. 4	26.1	5.9	100		
Q1.12 Banks' E-banking technology is not trusted by users.	F	110	5		2	2	119	1.16	.664
	%	92.4	4.2		1.7	1.7	100		
<b>Grand mean</b>								<b>2.341</b>	

Source: Own Survey

Since the range is 1 – 1.8 = **Never**, 1.81 – 2.60 = **rarely**, 2.61 – 3.40 = **Sometimes**, 3.41 – 4.20 = **Often** 4.21 – 5.00 = **Always**.

Above Table 4.1 reveals varied response on what constitutes the inadequate client knowledge of the e-banking product of respondents. From the table most staff indicating response to the statement inadequate client knowledge of the e-banking product fit with customer. The following was observed: 4 (3.4%) disagree, 82 (68.9%) strongly agreed, 1 (8%) could not sure, 36 (30.3%) often agree. In study shows the descriptive statistics out of 119 respondents on the sum of statistic of a mean was 4.68 it is always range.

Also the analysis captures A technical specialist understands how to use emerging e-banking technology. From the table most staff indicating in response the following was observed: 80 (67.20%) neutral, 33 (27.7%) agreed, 2(1.7%) disagreed and 4(3.4%) strongly agreed. In study shows the descriptive statistics out of 119 respondents on the sum of statistic of a mean was 3.33, it is range and highly effective mean score.

High implementation costs for e-banking (including restructuring, software, and ICT network costs) of respondents. The analysis captures employees both senior members and junior members. From the table most staff indicating. In response to the statement high implementation costs for e-banking the following was observed: 92 (77.3%) strongly disagreed, 4 (3.4%) disagreed, 1(8%) neutral, 10(8.4%) agreed and 12 (10.1%) strongly agreed. In study shows the descriptive statistics out of 119 respondents on the sum of statistic of a mean was 1.7 it is strongly disagree range and highly ineffective.

The top management is concerned about the developing technical revolution in e-banking of respondents on the usage of e-banking implementation. The analysis captures the usage of e-banking implementation employees both senior members and junior members. From the table most staff indicating. In response to the statement, the following was observed: 78(65.5%) strongly disagreed, 33 (27.7%) disagreed. In the study shows the descriptive statistics out of 119 respondents, a mean was 1.53 it is never range and highly in effective. And regulatory framework for e-banking implementation of new technological breakthroughs in the bank's operations, the analysis captures from the table most staff indicating. In response to the statement on the following was observed: 66 (55.5%) strongly disagreed, 34 (28.6%) disagreed. In study shows the descriptive statistics out of 119 respondents on the sum of statistic a mean was 1.90 it is (never) strongly disagree range and highly in effective.

On the Low levels of computer literacy among customers, the respondents put their answers 105 (88%) was strongly disagreed, 6(5%) disagreed, 4(3.4%), 4(3.4%) each was agreed and strongly disagreed respectively. There is an adequate ICT infrastructure from the supplier (government or private sector) statement respondents answered 95(79.8%) stay neutral, 13(10.9%) agreed, its shows that the mean 2.90 which means rarely or neutral, and The Bank's transaction network systems connect with various institutions respondents replied 102 (85.7%) disagreed, 7(5.9%) strongly disagreed and the mean is 2.08 disagreed. Requirement of the law makers for banks to use a standardized platform, respondents said 105(88.2%) disagreed, 7(5.9%) strongly disagreed, finally Banks' E-banking technology is not trusted by users the respondents replied 110(92.4) strongly disagreed, 5(4.2%) disagreed and the rest 2 responds each with 1.7% rate agreed and strongly agreed respectively.

In general, the grand mean show that

$$\text{Grand mean} = \frac{4.68+3.33+1.71+1.53+1.90+1.29+2.90+2.08+2.08+2.08+3.36+1.16}{12} = \underline{2.341}$$

12

It indicated the grand mean is disagreeing range and below low cited. Thus, usage of e-banking implementation, to the above twelve factors shows affecting the e-banking implementation on bank's activities.

#### 4.1.2 To assess advantages, have those selected banks received as a result of their implementation of e-banking technology.

To this perspective again there were 13 different questions which forwarded to respondents to examine their level of agreement. Accordingly, the below table presents their level of agreement.

Table 4.2 Descriptive statics of the benefits of e-banking

Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Mean	Standard deviation
Q.2.1 Paperwork was reduced;	F	79	33		1	6	119	1.50	.956
	%	66.4	27.7		0.8	5.0	100		
Q.2.2 Transaction costs are low.	F	79	33	1	2	4	119	1.48	.882
	%	66.4	27.7	0.8	1.7	3.4	100		
Q.2.3 Increase the productivity of the banking business;	F	18	94		2	5	119	2.01	.776
	%	15.1	79.0		1.7	4.2	100		
Q.2.4 Increase foreign currency production;	F	109	3		5	2	119	1.22	.794
	%	91.6	2.5		4.2	1.7	100		
Q. 2.5 Improve the banks e-banking system while decreasing errors.		13	9	92	2	3		2.77	.764
		10.9	7.6	77.3	1.7	2.5			

Q6 Allows for the creation of new products and new business in the banking industry;		14	8	91	2	4		2.78	.804
		11.8	6.7	76.5	1.7	3.4			
Q7 Improve the bank's service accessibility (in terms of location);		18	12	23	34	32		3.42	1.381
		15.10	10.1	19.3	28.6	26.9			
Q8 Enhance client service;		12	8	30	25	44		3.68	1.308
		10.10	6.7	25.20	21	37			
Q.2.9 Enhancing transaction speeds		25	5	10	43	36		3.50	1.489
		21	4.2	8.4	36.1	30.3			
Q2.10 Decrease the length of waits in the banking hall;		19	8	27	27	38		3.48	1.413
		16	6.7	22.7	22.7	31.9			
Q2.11 Promotes marketing and market access;		21	16	22	32	28		3.25	1.416
		17.6	13.4	18.5	26.9	23.5			
Q2.12 Improve the link between banks and customers;		21	14	21	31	32		3.3	1.439
		17.6	11.5	17.6	21.1	26.9			
Q2.13 transparent		5	14	36	25	39		3.66	1.174
		4.2	11.8	30.3	21.0	32.8			

pricing is encouraged;									
<b>Grand mean</b>								<b>2.77</b>	

Source: Own Survey

Since range is,

1 – 1.8 = **Strongly Disagree**    1.81 -2.60 = **Disagree**            2.61 – 3.40 = **Neutral**  
 3.41 – 4.20 = **Agree**                    4.21 – 5.00 = **Strongly Agree**

As indicated in the above table firstly the respondents were asked on Paperwork was reduced about 79(69.4%) could strongly disagree, 33 (27.7%) disagreed, 1(0.8%) agree and the remaining 6 (5%) strongly agreed. In study shows the descriptive statistics out of 119 respondents on mean was 1.50. It is on strongly disagree range and ineffective mean score category the result shows that the majority of the respondents strongly disagreed on Paperwork was reduced.

Again, the Table 4.2 Shows that Transaction costs are low. This was established through responses which reveal that about the following was observed: 79 (66.4%) could strongly disagree, 33(27.7%) disagreed, 1(0.8%) could not sure, 2(1.7%) agree and 4(3.4%) strongly agreed. In study shows the descriptive statistics out of 119 respondents on the mean was 1.48. It is disagreeing range and low cited mean score. On the third respondent to indicate on increase the productivity of the banking business. Looking at experts disagree to this question 18 (15.1%) could strongly disagree, 94(79.0%) disagreed, 2(1.7%) agreed and 5(4.2%) strongly agreed. In study shows the descriptive statistics out of 119 respondents mean was 1.48. It is on disagree level and low cited mean score category.

On the Increase foreign currency production; respondent to indicated about 109 (91.6%) could strongly disagree, 3 (2.5%) disagreed. In study shows the descriptive statistics out of 119 respondents on the mean was 1.22. It is on disagree range and low cited mean scale level.

Improve the banks e-banking system while decreasing errors. The respondents indicated 13(10.9) strongly disagreed, 9(7.6) agreed, 92(77.3) could not be sure, 2(1.7%) agreed and 3(2.5%) strongly agreed. In study shows the descriptive statistics out of 119 respondents on the mean was 2.77. It is on neutral range and medium cited mean scale level.

Allows for the creation of new products and new business in the banking industry, for this question the respondents replied 14(11.8%) strongly disagreed, 8(6.7%) disagreed, 91(76.5%) could not be sure, 2(1.7%) agreed and 4(3.4%) strongly disagreed. shows the descriptive statistics out of 119 respondents on the mean was 2.78. It is on neutral range and medium cited mean scale level.

On the question about Enhancing transaction speeds, the respondents 25(21%) strongly disagreed, 5(4.2%) disagreed, 10(8.4%) neutral level, 43(36.1%) agreed and 36(30.3%) was strongly agreed. shows the descriptive statistics out of 119 respondents on the mean was 3.50. It is on agreed range and high cited mean scale level.

In general, the grand mean show that

$$\text{Grand mean} = 1.5 + 1.48 + 2.01 + 1.22 + 2.77 + 2.78 + 3.42 + 3.68 + 3.50 + 3.48 + 3.25 + 3.3 + 3.66 = \underline{2.77}$$

13

It indicated the grand mean is neutral range and below low cited, thus, the benefits of e-banking overall as medium contribution than that of grand mean with an average grade of 2.77

**4.1.3 To find the driving forces for the implementation of electronic banking technologies in the selected banks.**

Table 4.4 Descriptive statics of driving force of e-banking

Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Mean	Standard deviation
Q3.1 Bank's experience in increasing organizational performance and productivity.	F	16	22	23	34	24	119	3.24	1.332
	%	13.4	18.5	19.3	28.6	20.2	100		
Q3.2 Bank's effort to build relationships with customers.	F	27	22	20	26	24	119	2.98	1.461
	%	22.7	18.5	16.8	21.8	20.2	100		



Q3.3 Bank's commitment to cover a large geographical region.	F	23	26	24	23	23	119	2.97	1.405
	%	19.3	21.8	20.2	19.3	19.3	100		
Q3.4 The reduction of bank transaction costs.	F	20	19	34	37	19	119	3.22	1.290
	%	16.8	7.6	28.6	31.1	16.0	100		
Q3.5 The bank's dedication to improving customer service.	F	19	18	37	29	16	119	3.04	1.258
	%	16.0	15.1	31.1	24.4	13.4	100		
Q.3.6 The extent of competition in the banking industry.	F	24	23	30	30	12	119	2.86	1.284
	%	20.2	19.3	25.2	25.2	10.1	100		
Q3.7 Regulations that require banks to implement innovative technology	F	12	24	17	36	30	119	3.40	1.330
	%	10.1	20.2	14.3	30.3	25.2	100		
<b>Grand mean</b>								<b>3.10</b>	

Source: Own Survey

Since the range is,

1 – 1.8 = **Strongly Disagree**    1.81 -2.60 = **Disagree**            2.61 – 3.40 = **Neutral**

3.41 – 4.20 = **Agree**                    4.21 – 5.00 = **Strongly Agree**

The next seven questions that were distributed to the respondents are to determine driving force of e-banking. Bank's experience in increasing organizational performance and productivity, the majority of the respondent's accounts for 34(28.6%) have agreed with the above statement, 24(2.2%) strongly agree, and 23(19.3%) where neutral and 16(13.4%) were strongly disagree. In study shows the descriptive

statistics out of 119 respondents on the mean was 3.24. Which indicates in neutral range and low cited score.

Again, above Table 4.4 Shows on the statements Bank’s effort to build relationships with customers that This was established through responses which reveal that about the following was observed: 27 (22.7%) could strongly disagree, 22(18.5%) disagreed, 20(16.8%), neutral, 26(21.8%) agreed and 24(20.2%) were strongly agreed in study shows the descriptive statistics out of 119 respondents on the mean was 2.98. The conclusion, therefore, is that both senior and junior members of banks experts are not believing that the Bank’s effort to build relationships with customers to measure so the mean score shows medium or neutral cited.

In response to the statement the following about the reduction of bank transaction costs. Was observed: 20(16.8%) could strongly disagree, 19 (7.6%) disagreed, 34(28.6) neutral, 37(31.1) agreed and 19(16%). In study shows the descriptive statistics out of 119 respondents on the mean was 3.22. In general respondents had neutral range and the mean score is low cited.

The table again shows that on the statement the extent of competition in the banking industry. The following was observed: 24 (20.2 %) could strongly disagree, 23(19.3%) disagreed, 30(25.2) rated for both neutral and agreed scale and 12(10.1%) strongly agreed, in study shows the descriptive statistics out of 119 respondents on the mean was 2.86. In general, the respondents show that the majority of respondents are neutral the score mean is medium cited.

In general, the grand mean show that

$$\text{Grand mean} = \frac{3.24 + 3.98 + 2.97 + 3.22 + 3.04 + 2.86 + 3.40}{7} = \underline{\underline{3.10}}$$

7

It indicated the grand mean is neutral range and below low cited. Thus, competition in the banking industry was one of the most important factors to prefer services for overall respondents, the study found that there was a significant difference on the bank’s services with competition in the banking industry on the respondent’s preference. As a result, the respondents that their choice of service was the most affected by clearly on competition in the banking industry value.

#### 4.1.4 To identify opportunities in selected banks for the use of e-banking

Table 4.4 Descriptive Statistics of opportunity of e-banking

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Mean	Standard deviation

Q 4.1 Government's commitment to strengthening the banking industry.	F	10	25	20	44	20	119	3.33	1.222
	%	8.4	21.0	16.8	37.0	16.8	100		
Q 4.2 The existence of high demand in the electronic banking business.	F	20	7	30	41	21	119	3.30	1.305
	%	16.8	5.9	25.2	34.5	17.6	100		
Q 4.3 Encouragement of society for developing and e-banking habit.	F	24	14	30	26	25	119	3.12	1.409
	%	20.2	11.8	25.2	21.8	21.0	100		
Q 4,4 The government's commitment to facilitating the growth of IT infrastructure.	F	21	18	27	33	20	119	3.11	1.345
	%	17.6	15.1	22.7	27.7	16.8	100		
<b>Grand mean</b>								<b>3.21</b>	

Source: Own Survey

Since the range is,

1 – 1.8 = **Strongly Disagree**    1.81 -2.60 = **Disagree**    2.61 – 3.40 = **Neutral**

3.41 – 4.20 = **Agree**    4.21 – 5.00 = **Strongly Agree**

The above table shows on the statement in opportunity of e-banking in the case of selected commercial banks' the statements to respond Government's commitment to strengthening the banking industry. The

respondent reply as follows 10 (8.4%) could strongly disagree, 25(21.5%) disagreed, 20(16.8) neutral range, 44(37.0) agreed and 20(16.8%) strongly disagree, in study shows that descriptive statistics out of 119 respondents on the mean was 3.33. In other question, the respondents show that the majority are agree on the existence of high demand in the electronic banking business. 20(16.8%) strongly disagree, 7(5.9%) disagreed, 30(25.2) neutral, 41(34.5%) agreed and 21(17.6%) and mean scale shows 3.30 in neutral range and categorized on a low cited mean scale.

About the statement on Encouragement of society for developing and e-Banking habit. To show this in number and percentage 24 (20.2%) could strongly disagree, 14(11.8%) disagreed, 30(25.2%) neutral, 26(21.8) agreed and 25(21.0) strongly agreed. In study shows that descriptive statistics out of 119 respondents on the mean was 3.12. The mean scale shows neutral range and categorized on a low cited mean scale.

The next question which states is related to the government's commitment to facilitating the growth of IT infrastructure. A reaction of the respondents. In this question, 21(17.6%) strongly disagree, 18(15.1%) disagree, 27(22.7%) stayed in neutral, 33(27.7%) agreed and the rest 20(16.8%) Strongly agrees. In study shows that descriptive statistics out of 119 respondents on the mean was 3.11. In general, the respondents show that the majority are not sure that the government's commitment to facilitating the growth of IT infrastructure and the result mean scale shows 3.11 in neutral range and categorized on a neutral cited mean scale.

In general, the grand mean show that

$$\text{Grand mean} = \frac{3.33 + 3.30 + 3.12 + 3.11}{4} = \underline{\underline{3.21}}$$

4

It indicated the grand mean is natural range and below low cited, as a result, the ICT departments' response showed that their preference was the government's commitment to facilitating the growth of IT infrastructure, having 3.21 overall mean results.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

This chapter covers the summary, conclusions, and recommendations resulting from the discussions on the data gathered from the respondents of the study.

#### 5.1 Summary of Findings

##### 5.1.1 Examines challenges to the use of e-banking technologies in the selected banks

- Most of ICT staff indicating response to the statement inadequate client knowledge of the e-banking product fit with customer.
- A technical specialist understands how to use emerging e-banking technology 68.9% strongly agreed, in study shows almost all e-banking expert's full knowledge about implementation of the technology.
- High implementation costs for e-banking (including restructuring, software, and ICT network costs) of respondents. In response to the statement high implementation costs for e-banking observed 77.3%.
- The top management is not more concerned about the developing technical revolution in e-banking of respondents on the usage of e-banking implementation.
- 55.5% of regulatory framework for e-banking implementation of new technological breakthroughs in the bank's operations indicating is not satisfied.
- On the Low levels of computer literacy among customers, the respondents put their answers 88% was strongly disagreed,
- The adequate ICT infrastructure from the supplier (government or private sector) statement respondents answered 79.8% indicating not fully satisfied or stay neutral.
- The Bank's transaction network systems connect with various institutions respondents replied 85.7% were not strong interconnection.
- Requirement of the law makers for banks to use a standardized platform, respondents said 88.2% disagreed
- Banks' E-banking technology is fully trusted by users the respondents replied 92.4 agreed.

### **5.1.2 To assess advantages, have those selected banks received as a result of their implementation of e-banking technology**

- As indicated on Paperwork was reduced is still the result shows ineffective mean score category the result shows that the majority of the respondents strongly disagreed on Paperwork was reduced.
- Again low Transaction costs which reveal that about observed: 66.4% strongly disagree.
- On increase the productivity of the banking business were not enough on the digital world. Banks' experts disagree with rating 79.0%.
- Low activity on Increase foreign currency production; respondent to indicated about 91.6% could strongly disagree.
- Improve the banks e-banking system while decreasing errors. The respondents indicated 77.3% could not be sure.
- Allows for the creation of new products and new business in the banking industry, 76.5% could not be sure.
- Enhancing transaction speeds, the respondents, very strong and active with 36.1% agreed and 30.3% was strongly agreed.

### **5.1.3 To find the driving forces for the implementation of electronic banking technologies in the selected banks.**

- Bank's experience in increasing organizational performance and productivity, the majority of the respondent's accounts for 28.6% have agreed.
- Bank's effort to build relationships with customers shows medium relationship.
- The reduction of bank transaction costs. Was observed as a neutral range.
- The extent of competition in the banking industry was observed the respondents show that the majority of respondents are agreed with the competition of the banks.

### **5.1.4 To identify opportunities in selected banks for the use of e-banking**

- Government's commitment to strengthening the banking industry 37.0 agreed and it is a big opportunity to the banking market.
- There are the existence of high demand in the electronic Banking business., 34.5% and 17.6%) agreed and strongly agreed respondents respectively.
- The Encouragement of society for developing and e-Banking habit shows neutral range and categorized on a low cited mean scale.
- A reaction of the government's commitment to facilitating the growth of IT infrastructure and the

result neutral range and categorized on a neutral cited mean scale.

## 5.2 Conclusion

There were some related researchers try to investigate and examined on challenges of banking, banks market advantages, adoption of electronics banking and digitalization, but on this study implementation of the electronics banking by their bank ICT experts a little bit differences. As we know digital world is not stoppable, through that digital banking always running on the competition truck, then everyday a new e-banking platform creativities emerged.

Based on the result, the researcher tried to draw the following conclusions: The majority of respondents were those three Banks ICT department experts, to investigate and examine the company's overall e-banking activities that are considering on:

Usage e-banking, benefits gain from e-banking, driving force of the e-banking industry and opportunities by gaining from private and government sectors.

Thus, usage of e-banking implementation, to the factors shows affecting the e-banking implementation on bank's activities. Such as direct relation with customer the end users on the banking. Also It indicated the benefits of e-banking overall as time, paper and office bureaucracy will reduce.

Thus, competition in the banking industry was one of the most important factors to prefer services for overall e-banking services, the study found that there was a significant difference on the bank's services with competition in the banking industry on the respondent's preference. As a result, the respondents that their choice of service was the most affected by clearly on competition in the banking industry value.

As a result, the ICT departments' response showed that their preference was the government's commitment to facilitating the growth of IT infrastructure.

## 5.3 Recommendation

As per the data analysis and conclusion, the researcher gives the following recommendations which help the organization to have more effective on e-banking implementation:

This study found that the majority of respondents' the banks implementation of e-banking activities had medium or neutral contribution and should be needed advancement.

- Now a day's client more knowledge about e-banking, so the banks must create advanced visibility promotional works with every mass media and social.
- A technical specialist great on their technical skill, but add some training focused on business management for creative e-banking market competition.
- The top management is more alarmed especially on business development department about

encouraging e-banking platforms and introduce new technology.

- In cooperation with banks, Government should review and inform to the banks experts on the effectiveness of E-banking technology. It will help stay on the completion of the market from sudden emerging banking technologies
- The Banks had better form serious alertness to customers relating to the E-banking services they offer and the benefits by using E-banking services through advertising their products and services on the internet, mass media as well as through organizing public exhibition and support and sponsor big events. Further, the banks should entice the communal to use the technology by various encouragement campaigns.
- Government should support banking sector by facilitating development of sufficient ICT infrastructure and encourage FDI multinational companies on ICT like safaricom for the successful implementation and development of E-banking services.
- The central banks should issue suitable legal frameworks for implementation of the E-banking technology. Like ATM connect other institution also all e-banking connect with product and services firms.
- The law makers for banks to use updated and a standardized platform for simplifications use for end users and clients.
- It is the encouragement for Banks' E-banking technology is fully trusted by users the respondents.



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## **APPENDIX I QUESTIONER**

### **Authorities and Professionals in the E-Banking Department**

#### **ST. MARRY UNIVERSITY**

#### **COLLEGE OF BUSINESS AND ECONOMICS**

#### **DEPARTMENT OF ACCOUNTING AND FINANCE**

Dears

My name is Seble Hailu, and I'm a M.Sc. candidate in the St. Mary's University Department of Accounting and Finance. I'm doing research on "An Evaluation of Electronic Banking Implementation by Selected Commercial Banks in Ethiopia" to meet some of the requirements for the Master of Science in Accounting and Finance degree. This questionnaire's objective is to evaluate how commercial banks in Ethiopia's banking sector have implemented electronic banking. For the institutions, their owners, clients, relevant government agencies, legislators, and others, the study's findings will be of utmost relevance. This questionnaire was created with the intention of gathering pertinent data.

I honestly promise to only utilize the information you supply for scholarly reasons. Your participation is thought to have a significant impact on how well the research turns out. Your candid and kind response is quite helpful.

For each closed-ended question and the relevant explanation for open-ended questions, please place the check mark (✓) in the corresponding box.

I Thank You,

Seble Hailu Degafe

Cell Phone 0912-478925

### **Questionnaires created for authorities and professionals in the E-banking department**

#### **Part I. Personal Information**

1. Name of the Bank \_\_\_\_\_
2. Employee work experience \_\_\_\_\_

### Part III. Questions about E-banking challenges, benefits, driving force and opportunities

Below are lists of questions relating to the implementation of e-banking. Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from 'strongly agree' to 'strongly disagree'.

**Key: - SA=strongly agree N= Neutral SD= Strongly Disagree A=Agree D= Disagree**

items	No	Indicate whether you agree or disagree with the probable issues associated with challenges to the use of e-banking technologies in the selected banks  (Organizational aspects)	SA	A	N	D	SD
			5	4	3	2	1
<b>Organizational aspects</b>	<b>1.1</b>	There is inadequate client knowledge of the e-banking product					
	<b>1.2</b>	A technical specialist understands how to use emerging e-banking technology.					
	<b>1.3</b>	There is high implementation costs for e-banking (including restructuring, software, and ICT network costs)					
	<b>1.4</b>	The top management is concerned about the developing technical revolution in e-banking.					
<b>Environmental aspects</b>	<b>1.5</b>	There is regulatory framework for e-banking implementation of new technological breakthroughs in the bank's operations.					
	<b>1.6</b>	There is Low levels of computer literacy among customers					
	<b>1.7</b>	There is an adequate ICT infrastructure from the supplier (government or private sector).					
	<b>1.8</b>	The Bank's transaction network systems					

		connect with various institutions.					
	<b>1.9</b>	There is frequent power outages affecting the performance of e-banking.					
	<b>1.10</b>	Requirement of the law makers for banks to use a standardized platform.					
<b>Technical Aspects</b>	<b>1.11</b>	Banks are concerned about security and safety issues (hackers, malware, etc.).					
	<b>1.12</b>	Banks' E-banking technology is not trusted by users.					
		<b>2) To assess advantages, have those selected banks received as a result of their implementation of e-banking technology.</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
<b>items</b>	<b>No</b>		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Aspects of Technology</b>	<b>2.1</b>	Paperwork was reduced;					
	<b>2.2</b>	Transaction costs are low.					
	<b>2.3</b>	Increase the productivity of the banking business;					
	<b>2.4</b>	Increase foreign currency production;					
	<b>2.5</b>	Improve the banks e-banking system while decreasing errors.					
<b>Advantages of Services</b>	<b>2.6</b>	Allows for the creation of new products and new business in the banking industry;					
	<b>2.7</b>	Improve the bank's service accessibility (in terms of location);					
	<b>2.8</b>	Enhance client service;					
	<b>2.9</b>	Enhancing transaction speeds					
	<b>2.10</b>	Decrease the length of waits in the banking hall;					
	<b>2.11</b>	Promotes marketing and market access;					
	<b>2.12</b>	Improve the link between banks and customers;					
	<b>2.13</b>	transparent pricing is encouraged;					

<b>3) To find the driving forces for the implementation of electronic banking technologies in the selected banks.</b>		<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
<b>No</b>		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>3.1</b>	Bank's experience in increasing organizational performance and productivity.					
<b>3.2</b>	Bank's effort to build relationships with customers.					
<b>3.3</b>	Bank's commitment to cover a large geographical region.					
<b>3.4</b>	The reduction of bank transaction costs.					
<b>3.5</b>	The bank's dedication to improving customer service.					
<b>3.6</b>	The extent of competition in the banking industry.					
<b>3.7</b>	Regulations that require banks to implement innovative technology					
<b>No</b>	<b>4) To identify opportunities in selected banks for the use of e-banking</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>4.1</b>	Government's commitment to strengthening the banking industry.					
<b>4.2</b>	The existence of high demand in the electronic banking business.					
<b>4.3</b>	Encouragement of society for developing an e-banking habit.					
<b>4.4</b>	The government's commitment to facilitating the growth of IT infrastructure.					