# CHALLENGE AND PROSPECT OF ELECTRONIC BANKING IN ETHIOPIA EVIDENCE FROM SELECTED COMMERIAL BANKS (IN CASE STUDY ON WOLKITE BRANCH)

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# ABSTRACT

*This study was conducted with the purpose of analyzing the challenges and prospects of electronic banking in commercial bank of Ethiopia in Wolkite branch. It was conducted based on the data collected from staff and customers of the bank through questionnaires response of interviews and the focused group discussion shows that there are certain issues that become a challenge for the electronic banking services in commercial bank of Ethiopia. The different e-banking channels by which banks are using to provide these services to their customers are ATM, debit card, Internet banking and Mobile banking. In addition to this some banks start to provide different type of card services. On the View point of the bank Cost reduction, coverage of wide geographical area, customer satisfactions are some of the benefits of using e-banking. In this regard, the result of the study indicated that the major challenges for the electronic banking services as of infrastructural related challenges, illiteracy related challenges. The study suggests a series of measures which could be taken by the government as well as commercial bank of Ethiopia Wolkite branch to address various challenges identified in the study. However, late adopter prospects, improvements in the banking habit of the society, commitment of the governments to facilitate the expansion of ICT infrastructure and willingness among banks to cooperate in building infrastructure are the major prospects for the implementation of system in the banking industry*

**ACRONYMS**

ATM - Automated Teller Machines

CBE - Commercial Bank of Ethiopia

E-banking- Electronic Banking

EFT-Electronic Fund Transfer

EFTPOS - Electronic fund transfer at point of sales

E-Payment-Electronic Payment

ICT - Information Communication Technology

*PC - Personal computes*

*PDA - Personal Digital assistant*

POS - Point of Sale

SMS - Short Message Service

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# CHAPTER ONE
## 1.1 Background to the study

The increasingly competitive environment in the financial service market has resulted in pressure to develop and utilize alternative delivery channels. The most recently delivery Channel introduced is online or electronic banking also known as e-banking (Daniel &Story, 2001). Online or electronic banking systems give everybody the opportunity for easy access to their banking Activities. These banking activities may Include but not limited to: retrieving an account balance, money transfers between user's accounts, from users account to someone else account, retrieving an account history (Liao and Cheung, 2002)

E-banking includes the systems that enable bank customers to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet. Customers' access E-banking services using an intelligent electronic device, such as a Personal Computer (PC), Personal Digital Assistant (PDA), Automated Teller Machine (ATM), telephone (Ibrahim *et al* 2006).

Electronic banking system provides opportunities like reduce the transaction costs between customers, improve business efficiency. Service and attract new customers. Electronic banking also increases the power of the customer to make price comparison across suppliers quickly and easily and as a consequence of this pushes price and margin down ward (Kreme, 2003).

According to (Harrison ,2008) many of the factor affecting successful adoption of e-banking are including lack of infrastructure development, poor internet connection, lack of public acceptance, the absence of a proper legal and regulatory frame work was more challenge the function of e-banking. So the paper is concerned the challenge and prospects of electronic banking system.

As it was stated in different E-banking literature some of the problems related with E-banking are: Low level of internet penetration and poorly developed telecommunication infrastructure. Lack of suitable legal and regulatory framework for E-commerce and E-payment is another problem for the practice of new technology in banking industry. Low literacy rate was a problem for the practice of E-banking in Ethiopia as it hinders the accessibility of banking services. For citizens to fully enjoy the benefits of E-banking, they should not only know how to read and write but also possess basic ICT literacy (Gardachew, 2010).

In order to encourage further E-banking practice in developing countries, a better understanding of the barriers impacting E-banking practice was critical (Zhao, 2008). By gaining an in-depth understanding of the factors and conditions that influence developing country's ability to fully adopt and realize its benefits, strategic implications can be generated for the researchers and practitioners regarding how to promote the growth of E-banking in the developing countries. However, despite the importance of these adoptions, Limited studies are currently available in developing countries, especially in Ethiopia. Therefore, more studies are still required to understand the relevance of E-banking in the country to identify areas in which the country lags behind that inhibit their E-banking practice.

The appearance of E-banking in Ethiopia goes back to the late 2001, when the largest state owned, commercial bank of Ethiopia (CBE) introduced automatic teller machine to deliver service to the local users. Electronic banking facilities provided by most Ethiopian Banks are very basic. The modern e-banking methods like alert, Internet banking, Mobile banking and others are very new to the Ethiopian banking sector. E-banking which refers to the use of modern technology that allows customers to access banking services electronically whether it is to withdraw cash, transfer funds, to pay bills, or to obtain commercial information and advices are nearly recent years adopted by commercial bank of Ethiopia.

## 1.2 Statement of the Problem

E-banking has been widely used in developed countries and was rapidly expanding in developing countries. Nevertheless, in Ethiopia cash was still the most dominant medium of exchange, and electronic payment systems are observed late to move with rapid expansion of electronic payment systems throughout the developed and the developing world, Ethiopia's financial sector remain behind in expanding the use of the technology.

Different factors in the adoption of E-banking have been taken as the main factors of the adoption of new technology by different researchers such as organizational factors Lack of skilled man power, resistance to changes in technology among staff (piccolo,1995)environmental factors (like lack of suitable legal and regulatory framework for e-commerce, poor ICT infrastructure, lack of competitive pressure in the industry) and according to Elias(2009) technological factors ,security risk and functionality.

By referring different literatures (such as Gardachew, 2010; Dawd, 2009 and Meron, 2015) the service provided by Ethiopian banks, the banking system was underdeveloped compared to the rest of the world and therefore, there was an immediate need to embark on capacity building arrangements and modernize the banking system by employing the state of art of technology being used in anywhere in the world.

With the growing number of import-export business, and increasing international trades and international relations, the current banking system is short of providing efficient and dependable services. Cash was still the medium of exchange. The use of checks was mostly limited to governmental institutions, non-governmental organizations and some private businesses.

The country has not yet realized the full benefit of technological advances in electronic banking system. While numerous studies have been undertaken to examine issues in the wider context of Economic and Financial implication online banking, problem and prospect, comprehensive research in the area of online banking issues in the specific context of Ethiopia has been rather limited. This study attempted to identify prospects and influencing challenges inhibiting acceptance of online banking in Ethiopian Commercial Banks.

## 1.3 Objective of the Study

### 1.3.1 General Objective

The main objective of the study was to analyze the challenge and prospects of E-banking of Commercial in Ethiopian Wolkite branch.

### 1.3.2 Specific Objectives

The specific objectives of the study were to:

- ✓ To identify the benefits of E-banking services to the customers.
- ✓ To analyze the benefits of E-banking services to the bank.

- ✓ To analyze the literacy related challenges of e-banking services.
- ✓ To analyze the infrastructural related challenges of E- banking services
- ✓ To indentify the current practice of e- banking service

## 1.4. Research questions

1. What are the benefits of E- banking services to the bank?

2. What are the benefits of E- banking services to the customers?

3. What is the literacy related challenges that face e-banking services of commercial bank of Ethiopia Wolkite branch?

4. What are the infrastructural related challenges that face e-banking services of commercial bank of Ethiopia Wolkite branch?

5. What are the current practices of commercial bank of Ethiopia wolkite branch?

## 1.5. Significance of the study

Since E-banking was in an infant stage in Ethiopia, by investigating the different prospect and challenges for the implement of this service delivery channel and by recommending solutions for the identified problems, this study was help banks to benefit from the adoption of this technology. In addition, it helps the importance of the study was pointing out challenges in the application of bank in the implementations of electronic banking and to generate supportive recommendation that possibly solve this problem. The research output used by commercial bank of Ethiopia for e-banking procedure guideline and positively configure to words enhanced operational activities of new banking activities such as mobile internet, alert, ATM and POS.

## 1.6 Scope of study

The studies was conducted on selected commercial banks for focused on analyzing challenges and prospects of E-banking technology in Ethiopian Banking industry specifically in commercial bank in Ethiopia Wolkite branch. This was due to many constraints which are actually beyond the capacity of the researcher like absence of sufficient times, transpiration financial problem and the skill of researcher to generalize the huge information that gathered at regional and country level in this case limited to branch level.

## 1.7 Organization of the paper

This paper consists of five chapters with different sections and sub-sections. Chapter one presents the introduction for the main part of the paper which contains, back ground of the study, statement of the problem, research questions, objective of the study, scope of the study and significance of the study, and chapter two states the theoretical and empirical literature review about the e-banking service in some countries. Chapter three discusses research methodology study which consists of research design, source of data, data collection method, target population, and sampling techniques and data analysis. Chapter four focuses on analysis of the results and discussions. Finally, the last chapter five gives conclusion and recommendation for the study.

# CHAPTER TWO

# Literature review

## 2.1. Theoretical Literature review

E-banking has a variety of definitions all refer to the same meaning; the following section shows some of these definitions. E-banking was a form of banking service where funds are transferred through an exchange of electronic signal between financial institutions, rather than exchange of cash, checks, or other negotiable instruments (Kamrul, 2009).

E-banking, also known as electronic funds transfer (EFT), was simply the use of electronic means to transfer funds directly from one account to another, rather than by check or cash (Malak, 2007). The term of E-banking often refers to online banking/Internet banking which is the use of the Internet as a remote delivery channel for banking services (Furst and Nolle 2002).

Abid and Noreen (2006) defined it as any use of information and communication and technology and electronic means by a bank to conduct transaction and have interaction with stake holders. Magembe (2002) also defined electronic banking (e-banking) is e-business in banking industry. E-banking was a generic term for delivery of banking services and products through electronic channels, such as the telephone, the internet, the cell phone.

Another definition of e-banking is the use of a computer to retrieve and process banking data statements, transaction details, and to initiate transactions payments, transfers, requests for services. Directly with a bank or with other financial service provider remotely via a telecommunications network (Yang, 1997).

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

### 2.2. Evolution of E-banking

Since the late 1990s E-banking has developed from virtual insignificance to tens of millions of users worldwide (OECD, 2004). However, E-banking is the product of different generations of electronic transactions. The current web-based internet is the latest of several generations of systems: Automated Teller Machine (ATMs), Phone Banking, PC or House Banking. Automated Teller Machines (ATMs) were the first well-known machines to provide electronic access to customers whereas in phone banking, users call their bank's computer system on their ordinary phone and use the phone keypad to perform banking transactions.

PC banking superseded phone banking and allowed users to interact with their bank by means of a computer with a dial-up modem connection to the phone network. Phone and PC banking entailed maintenance costs associated with keeping up to date with diverse modems and with avoiding prohibitively complex installation procedures. After those generations Deutsche Bank launched the very first Internet banking project in Latin America in 1996 and Citibank has developed a special lookalike across all its branches worldwide (UNCTAD, 2002).

## 2.3. Importance of E-banking

Electronic banking systems provided easy access to banking services. The interaction Between user and bank has been substantially improved by deploying ATMs, Internet Banking, and more recently, mobile banking (Claessens et al. 2002).

## 2.3.1. Benefits from the bank point of view

**Attracting High Value Customers**

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

**Increased Revenues**

Increased revenues as a result of offering e-channels are often reported, because of possible increases in the number of customers, retention of existing customers, and cross selling opportunities. This means that banks can sell and manage services offered by other banks often-foreign banks to increase their revenues. E-banking has also resulted in increased credit card lending as it was a sort of transactional loan that is most easily deliverable over the internet. Electronic bill payment is also on rapid rise (Young, 2007).

**Easier Expansion**

Traditionally, when a bank wanted to expand geographically it had to open new branches, thereby incurring high startup and maintenance costs. Now banks with a traditional customer base in one part of the country or world can attract customers from other parts, as most of the financial transactions do not require a physical presence near customers living/working place (Fatima, 2011).

**Cost Reduction**

The main economic argument of e-banking so far has been reduction of overhead costs of other channels such as branches, which require expensive buildings and a staff presence. Whilst this implies that cost per transaction for smaller banks would in most cases be greater than those of larger banks, even in small banks it is seen as likely that the cost per transaction will be below that of other banking channels (Meskerem, 2016).

**Improve Customer relationship**

Maintaining the relationship with consumers has become a strategic priority for most of the banks. Using the internet banking technology and facilities can provide a means for banks to develop and maintain a good relationship with their customers by offering easy access to a wide range of products and services (Nagu, 2012).

### 2.3.2. Benefits from the customers' point of view

**Less waiting time:** It offers less waiting time and more convenience as compared to the traditional banking system and significantly lowers the cost structure than traditional delivery channels (Mols, 1999).

**Ease and Convenience**: Internet banking is considered as more efficient in term of ease of use and access (Calisir, 2008). It allows the consumers to make transactions on internet provide them comfort of home or office without going outside. It also enables consumers to keep an eye on their transactions or account activities from their home, office or elsewhere so they can feel satisfied and convenient.

**Availability**: With the help of internet banking, costumer can access their banking facilities and services all around the clock i.e. 24 hours and 365 days from anywhere anytime. They do not need to wait for timing of bank branches (Ibid, 2004).

**Self-service channel**: Internet banking provides their customer a self-service channel for various banking services they have not to depend on the bank's staff and other depending process to avail their services. Internet banking is one of the most popular self-service banking technologies. Continued use of self-service technology is positively affected by buyers' perceived usefulness (Erikson, 2007).

**Save time and money**: Now customers do not have to go to branch to avail banking services it consisted various advantages such as: it will save time, save fuel, do away from traffic, save the environment in term of reducing the use of motor vehicles and reduce waiting time.

### 2.3.3. Benefits to the Economy

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

## 2.4. Factor affecting to E-banking

Many researchers have been used different frame works in the study of adopting new technology innovation. Among frameworks that have been developed based on the past studies include, the technology organization framework (Tornolzky and Fleischer, 1990). This identifies three basic factors for the adoption of technological innovations. Such as, Technological factor s, organization and environmental factors.

### 2.4.1 Technological Factors

According to Elias (2009) chooses two basic factors relate to technology competences, which have relevant to the organizational factors i.e., perceive benefit and perceive risks are consider in this study from the technological factors perceive benefits of e-banking cover both direct and indirect benefits for the banking industry as Well as for the consumers.

Direct benefits include the solving on operational cost improve organizational functionality. Productivity gain improved efficiency and increase profitability. Indirect includes the opportunity or intangible benefits such as improve customer's satisfaction through improved services improved banking experience and fulfillment of their changing need and life style (lacovov, 1995).

### 2.4.2. Environmental Factors

According to Tornatzky and Fleischer (1990), technology adoption within an organization is influenced by factors pertaining to the technological context, the organizational context, and the External environment. Those factors that are considered relevant to the adoption and optimization of E banking were identified and discussed by different scholars as follows: - maturity of E-commerce legal frameworks within a country influence the diffusion of online transactions including E-banking. Moreover, without an adequate development level and quality of a nation's ICT infrastructure E banking adoption and use cannot do well (Efendioglu, 2004; Cupola, 2003).

### 2.4.3. Organizational Factors

Organizations are influence by different factors to adopt and growth of E- banking services. Like firm size top management support, financial and human resource. In the frame work, in this study, researchers use one basic organizational factor as discussed below (Piccolo, 1995) .Organizations are different in their preference to adopt technological innovation (Grover, 1993; acovo, 1995). Influenced by a number of factors, like firm size, top management support and Financial and human resources (Ayana, 2010).

## 2.5. Types of electronic banking

Electronic banking consists of the following, mobile banking, internet banking, telephone banking, personal computer banking, automatic teller machine, credit card and debit card etc.

### 2.5.1, Mobile banking

Mobile banking may be described as the newest channel in electronic banking to provide a convenient way of performing banking transaction using mobile phones or other mobile devices. The potential for mobile banking may be far greater than typical desk-top access, as there are several times more mobile phone users than online PC users. Increasingly "mobile life styles "may also fuel the growth of anywhere, anytime applications. (Shah & Clarke, 2009).

Here are two main types of technologies available for use in mobile Banking: Wireless Application Protocol (WAP) and Wireless Internet Gateway (WIG). WIG is a Short Message Service (SMS)-based service, in which a menu of available banking options is initially downloaded from the bank to the phone device.

### 2.5.2 Internet banking

It is an electronic home banking system using web technology in which Bank customers are able to conduct their business transactions with the bank through personal computers. Internet Banking lets you handle many banking transactions via your personal Computer. Internet banking system and method in which a personal computer is connected by a network service provider directly to a host computer system of a bank such that customer service requests can be processed automatically without need for intervention by customer service representatives (Turban, 2002).

### 2.5.3. Telephone Banking (Tele banking)

Tele banking (telephone banking) can be consider as a form of remote or virtual banking, which is essentially the delivery of branch financial services via telecommunication devices are the bank customers can perform retail banking transactions by dialing a touch-tone telephone or mobile communication unit, which is connect to an automate system of the bank by utilizing Automate Voice Response (AVR) technology (Balachandher et al., 2001).

### 2.5.4. Delivery channels of E-banking

E- Banking services are delivering through various electronic means collectively called electronic delivery channels. Electronic Banking is really not one technology, but an attempt to merge several different technologies. Each of these evolves in different ways, but in recent years' different groups and industries has recognized the importance of working together (Abor, 2004).

### 2.5.5. Automated Teller Machines (ATMs)

It is a machine where cash withdrawal can be made over the machine without going in to the banking hall. It also sells recharge cards and transfer funds; it can be accessed 24 hours/7 days with account balance enquiry (Fenuga, 2010).

The ATM card holder can do most of the banking transactions like withdrawals, deposits of cash, balance enquiry, etc. With the use of ATMs, the banks are providing 'Any Where and Any Time Banking' to their customers. That is the customer can have access to ATMs at anywhere within the country or throughout the world at any time.

### 2.5.6. Personal Computer Banking Services

PC-Banking is a service which allows the bank's customers to access information about their accounts via a proprietary network, usually with the help of proprietary software installed on their personal computer. The increasing awareness of the importance of computer literacy has resulted in increasing the use of personal computers. This certainly supports the growth of PC banking which virtually establishes a branch in the customers' home or office, and offers 24-hour service, seven days a week. It also has the benefits of Telephone Banking and ATMs (Abor,2004).

## 2.5.7. Electronic Funds Transfer at Point of Sale (EFTPOS)

A Point-of-Sale service is an electronic payment type that allows credit/debit cardholders make payments at sales/purchase outlets. It allows customers to perform the following services: Retail Payments, Cashless Payments, Cash Back Balance Inquiry, Airtime Transaction, Printing mini statement etc. (Kumaga, 2010).

An Electronic Funds Transfer at the Point of Sale is an on-line system that allows customers to transfer funds instantaneously from their bank accounts to merchant accounts when making purchases (at purchase points). A POS uses a debit card to activate an Electronic Fund Transfer Process (Chorafas, 1988).

## 2.5.8. Credit Cards

A credit card is a small plastic card issue to users as a system of payment. It allows its holder to buy goods and services based on the holder's promise to pay for these goods and services. The issuer of the card creates a revolving account and grants a line of credit to the consumer from which the user can borrow money for payment to a merchant or as a cash advance to the user (Mavri&Ioannou, 2006).

## 2.5.9. Debit Cards

A Debit Card provides for online electronic payment like Credit Card but from savings or current accounts of the cardholder for purchases. This card is a deposit access product where cardholder Debit uses his own money in his bank account through the debit card on the principle of "Pay First and Use Later" card can be used to make purchase at retail shops and merchant establishments in the same way as the credit card is used. But to use the debit card, the cardholder must have sufficient balance in his account. Debit cards are accepted at many locations, including grocery stores, retail stores, gasoline stations, and restaurant (Kamrul, 2009).

## 2.6. Challenges of Electronic banking in Ethiopia

Despite numerous benefits of E-banking, there are challenges in the implementation of E-banking applications. The key challenges of E-banking applications are:

### 2.6.1. Illiteracy

Low literacy rate is a serious impediment for the adoption of E-banking in Ethiopia as it hinders the accessibility of banking service, for citizens to full enjoy the benefit of E-banking, they should not only know how to read and write but also possesses basic ICT literacy (Gardachew,2010).

### 2.6.2 Infrastructure

The other challenge for e-payment is proper infrastructure. For the effective deployment of e-banking, it is necessary to have a reliable and cost effective infrastructure that can be accessible to the majority of the population. The most common communication infrastructure for e-banking is computer network such as Internet. Most e-banking systems use internet to communicate with their customers. The other communication infrastructure available for e-banking users is the mobile network used for mobile phone. Automating the banking activities is another prerequisite for e-banking system. This network is usually used between banks or other financial institution for clearing and payment confirmation, Abreham (2012).

### 2.6.3 Regulatory and Legal Issues

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

According to Mishra (2009), the virtual and global nature of e-payment also raises legal questions such as which jurisdiction will be competent and about applicable laws in disputed cases, validity of electronic data, electronic contracts, and electronic signature. For E-commerce and E-payment Ethiopian current laws do not accommodate electronic contract and signatures.

## 2.7. Challenges of E-banking service in Ethiopia

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

- **Low level of internet penetration and poorly developed telecommunication** infrastructure: Lack of infrastructure for telecommunications, Internet and online payments impede smooth development and improvements in e-commerce in Ethiopia. Most rural areas of the country, where the majority of small and medium businesses are concentrated, have no Internet facilities and thus are unable to engage in e-commerce activities.
- **Lack of suitable legal and regulatory framework for e-commerce and e-payment**: - Ethiopian current laws do not accommodate electronic contracts and signatures. Ethiopia has not yet enacted legislation that deals with e-commerce concerns including enforceability of the validity of electronic contracts, digital signatures and intellectual copyright and restrict the use of encryption technologies.
- **Political instabilities in neighboring countries:** - Political and economic instabilities in Somalia, Southern Sudan, and Eritrea are threatening traits that do not provide a very conducive environment for e-banking in Ethiopia. Political instabilities inevitably disturb smooth operations of business and free flow of goods and services
- **High rates of illiteracy**: - Low literacy rate is a serious impediment for the adoption of E-Banking in Ethiopia as it hinders the accessibility of banking services. Absence of financial institutions networks that links different banks (Banks are not yet automated: - Most of the banking-transactions currently taking place use credit and debit cards supplied by Visa and MasterCard.

## 2.8. Prospects of E-Banking

According to M., M Rahman (2008) in Bangladesh e-banking is now a global phenomenon. Apart from the developed countries, the developing countries are experiencing strong growth in e -banking. The government's emphasis on setting up ICT park, raising allocation for developing ICT infrastructure, waiving taxes on computer peripherals and other measures including the automation program of banking sector and competition among the scheduled banks in improving customer services have accelerated the prospects of e-banking. In addition, as investigated by Alhaji Ibrahim H. (2009) using exploratory study, the following are among the critical challenges for the adoption of e-banking in developing counties:

- Lack of Technological Infrastructure – the implementation of e-payment is been impeded by unavailability of ICT infrastructure. Most rural areas where majority of small and medium scale industries are concentrated have no access to internet facilities
- ICT Equipment Costs – where available, the cost of ICT is a critical factor relative to per capital income. This makes the cost of entry higher compared to developed countries.
- Non-readiness of banks and other stake holders (acceptability) – even though some have shown impressive willingness, some banks are still not fully ready to for this new payment regime.
- Resistance to changes in technology among customers and staff due to:
- Lack of awareness on the benefits of new technologies,

## 2.9. Empirical studies related with E-banking challenges and prospects

According to Gardchew (2010) conducted research on the challenges and prospects of e-banking in Ethiopia. The bank has gone through various challenges in popularizing and penetrating the market through electronic delivery channels, we are now at the level of encouraging recognition and flexibility to adopt the new habits as alternate service channels. The bank is able to reap better returns by way of increasing non-interest income from diversified service offerings and total solutions to the customers. According to Gardchew (2010),

The study of Kerem (2003) on the adoption of e-banking; underlining consumer's behavior and critical success factors. The selection criteria for the respondents were mainly their involvement with the development of internet banking systems from the early days of its emergence. Finally, the research indicates that banking activities alone may not be sufficient in achieving growth if general infrastructure, economic environment and government initiatives are not supportive.

The research conducted on identifying the attitudinal, social and perceived behavioral control factors that may influence the adoption of internet banking by Hoppe ital. (2001) were based on theory of planned behavior (TPB) and the diffusion of innovation theory (DIT) developed by previous researchers in Singapore.

According to Ayana (2008), also conducted research on factors affecting adoption of E-banking System in Ethiopian Banking industry. The study was conducted based on the data gathered from four banks in Ethiopia. The result of the study indicated that, the major barriers Ethiopian banking industry faces in the adoption of Electronic banking are: lack of trust, lack of legal and regulatory framework and absence of competition between local and foreign banks. The study also identified perceived ease of use and perceived usefulness as a driver of adopting E-banking system.

The Study conducted by khalfan et al., (2006) on factors influencing the adoption of internet of internet banking in Oman. Data, used in their study were collected using semi –structured interview as well as bank document. The result of this study provides a pragmatic picture about the adoption of e- commerce application in the core financial sector domain of Oman. One of the finding is that security and data confidentialities issue has been major challenge.

## 1.10. Conclusion and knowledge gap

Much documentation on E-banking services has been carried out elsewhere. However, in developing countries like Ethiopian, there was little evidence concerning E-banking like that of (Bultum, 2014), (Gardachew, 2010) and (Tsegai, 2005). As far as E-banking was concerned, a lot of researches on internet banking, mobile banking and modern service delivery channels have been done in different countries in the world. Therefore, more studies are still required to assess challenges and prospects of E-banking in the country to identify areas in which the country lags behind their E-banking adoption and diffusion. The previous studies mainly focused on factors influencing adoption of E-banking technology. Thus, this study focused on challenges and prospects of E-banking technology in Ethiopian Banking industry. Secondly, this study was conducted following almost all type of E-banking products is being provided by almost all commercial banks in Ethiopia. This study was therefore, intending to fill the gap by describing the challenges and prospects in the implementation of E-banking technology to the bank and customers as well as to contribute to the literature on the electronic banking service in Ethiopia.

# CHAPTER THREE

# 3. Research methodology

## Introduction

This section describes the methodology undertaken in relation to justification of this chapter focuses about the methodology by which the researcher used to conduct this study. Thus, research design, target population, sample size and sampling technique, source of data, method of data collection and method of data analysis are presented below respectively.

## 3.1. Research design

he paper research design was usually a plan or blue print which specifies how data relating to given problem would been collected and analyses. It provides the procedural outlines for the conduct of any investigation. A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. In fact, the research design was the conceptual structure within which research was conducted; it constitutes the blueprint for the collection, measurement and analysis of data (Kothari, 2004).

This research aims to explain the phenomenon and assess the current practice of E-banking. Therefore, Descriptive research was being used to achieve the research objectives. In an attempt to challenges and prospects of electronic banking, the researcher would be used descriptive type of research design. As the name implies descriptive method would be used when the researcher wants to describe specific behavior occurs in the involvement. It is used to gather information about the present and the existing condition.

## 3.2. Target population

In research methods, population was the entire aggregation of items from which samples can be drawn. The population of the present study consists of 35 workers commercial bank of Ethiopia Wolkite branch and From customer’ s side the target population includes 964 ATM users, 24 internet banking users and 586 mobile-banking users of commercial bank of Ethiopia Wolkite branch.

## 3.3 Sampling Technique

The study has two major target groups’ workers of the bank and customer of the bank. The method that was implemented for the study to collect the data from the worker’s side was census method of surveying. This technique is selected because it enables to get accurate and sufficient information. By using this technique, the data was collected from workers of the bank who are believed to have sufficient knowledge and familiarity with the bank activity. From the customer’s side, for the focused group discussion, a sample was taken by using purposive or judgmental sampling technique.

## 3.4. Sample Size

In order to achieve the objective of the research, the researcher used all target population of the study from the employee’s side. Although from the customer’s side a focused group discussion was made, the discussion contains four customers of E-banking services. The customers that participate on the discussion were the ones which believed to have sufficient knowledge about e-banking challenge and prospects as well as willing for the discussion.

## 3.5. Source and Method of Data Collection

This studies conducted the study primary data was employed. This primary data was collected by distributing questionnaires and by making focused customers discussion. The questionnaires were distributed the workers of the bank. The reason for selecting questionnaires is that a questionnaire is used to collect a large amount of data from large population and is efficient in time and cost. On the other hand, the focused group discussion with the customers was made to collect sufficient data for the study as well as to verify the result obtained from questionnaire.

## 3.6. Method of Data analysis and presentation

Accordingly, the data collected via focused group discussion, and questionnaires was analyzed qualitatively with descriptive statistics. Furthermore, Wolcott (1994) cited in Creswell (2003), suggested that qualitative research is fundamentally interpretative i.e. the researcher makes an interpretation of the data. Descriptive statistics by percentages, figures and tables would generate from the software to establish relationship among variables. The relevant information would be obtained in standard form using tables, frequencies and percentages to analyze and interpret the information.

# CHAPTER FOUR

# 4. Data presentation and discussion

## Introduction

This chapter presents and analyses the data collected through the different data collection techniques. Questionnaire was used as a primary data collection method to gather the required information. The remaining part of this chapter is organized as follows. Section 4.1 presents the qualitative statistics on the finding and discussion from the bank employees along with demographic profile and their response to the study related questions by using questionnaires. Section 4.2 presents the discussion of the result.

## 4.1 present the qualitative statistics

### 4.1.2 Results from questionnaire

The Questionnaire was very important to gather information and it was very useful when there were a large number of respondents. For this research which requires individual's response about the usage of electronic banking, the researcher used this data source as a primary source and has got in-depth information by using this technique.

### 4.1.3 Background Information of respondents

From total 35 questionnaire distributed to employees of commercial bank of Ethiopia wolkite branch, 30 questionnaires representing 85.7% are returned.

**TABLE4. 1Respondent's personal information**

| | Description | No of respondents | Percentage |
|---|---|---|---|
| 1. Gender | Male | 29 | 96.7% |
| | Female | 1 | 3.3% |
| | Total | 30 | 100% |
| 2. Age | 20-30 | 24 | 80% |
| | 31-40 | 6 | 20% |
| | 41-50 | - | 0% |
| | 50 above | - | 0% |
| | Total | 30 | 100% |
| 3. Educational status | Diploma | 2 | 6.6% |
| | Degree | 24 | 80% |
| | Master's degree | 4 | 13.3% |
| | Total | 30 | 100% |
| 4. Work experience | < 2 years | 6 | 20% |
| | 3-5 years | 18 | 60% |
| | 6-10 years | 6 | 20% |
| | > 10 years | - | 0% |
| | Total | 30 | 100% |

Source: Questionnaires' (2020)

As it is shown on the above table, 30 respondents, representing 96.7% are males and only 1 respondent, representing 3.3% is female. The table shows the gender distribution for male employees are very large than the female employees.

In the case of classification of respondents by age, 24 respondents, representing 80% are their age between 20 – 30 years and the remaining 6 respondents, representing 20% are their age between 31- 40 years. This indicates that the largest 80% employee’s age is lies between 20 – 30 years. Therefore, these shows the largest employees are young and there is no old employee in the bank.

With regard to educational level of respondents, the table shows that 24 respondents, representing 80% of the employees are degree holders, 2 employee’s holds diploma and the remaining 4 employees are master degree holders, on the other hand there is no other educational level from the sample. This shows that the highest percentages of employees are degree holders.

In relation to work experience of employees, the table shows that 6 respondents, representing 20% of the employees have an experience of 0-2 years, 18 respondents, representing 60% of the employees have an experience between 3-5 years, and 6 respondents, representing 20% of the employees has an experience of 6 – 10 years.

## 4.2. Employees response to the study related question with benefits of e-banking services

In this section the attitudes of employees related to electronic banking benefits were discussed. The analysis and presentation in made using statically tools such as frequencies percentage and tables.

### 4.2.1. Benefits of e-banking to the bank

**TABLE4. 2. benefit of E-banking to the bank**

| Benefit of e-banking to the bank | Strongly Agree | Agree | Neutral | disagree | Strongly disagree |
|---|---|---|---|---|---|

| | Freq | % | freq | % | Freq | % | freq | % | Freq | % |
|---|---|---|---|---|---|---|---|---|---|---|
| Increase Revenues of the bank. | 21 | 70% | 9 | 30% | 0 | 0% | 0 | 0% | 0 | 0% |
| Helps to perform transaction at lower cost | 22 | 73.3% | 8 | 26.7% | 0 | 0% | 0 | 0% | 0 | 0% |
| Increases the productivity of the bank. | 17 | 77.3% | 5 | 22.7% | 0 | 0% | 0 | 0% | 0 | 0% |
| Reduces paper work | 27 | 90% | 3 | 10% | 0 | 0% | 0 | 0% | 0 | 0% |
| Reduce queues in the banking hall | 9 | 30% | 14 | 46.7% | 2 | 6.67% | 5 | 16.67% | 0 | 0% |

Source: questionnaires' (2020**)**

With regard to benefit of e-banking to perform transaction at lower cost, 22 respondents, representing 73.3% strongly agree with E-banking benefits to perform transaction at lower cost, the others 5 respondents, representing 26.7% agree with. This implies that, E-banking services benefits the bank to enhance its image.

With regard to enhancing the productivity of the bank, 21 respondents, representing 70% strongly agree with E-banking, the others 9 respondents, representing 30% agree with E-banking enhancing of the productivity of the bank. The result indicates that E-banking's benefit the bank to enhance its productivity.

One of the big significances of using e-banking is reducing of paper work. On the basis of the above table, 90% of respondents strongly agree with that E-banking Reduces paper work, and the remaining 10% of respondents are agree with E-banking reduction of paper work. This shows that adoption of E-banking helps the bank to minimize paper work.

One of the big significances of using e-banking is the Reducing queues in the banking hall. On the basis of the above table, 30%, 46.7% and 16.6% of respondents are strongly agree, agree and disagree with E-banking's reduction of queues in the banking hall, only 2 respondents are neutral with E-banking significance of Reducing queues in the banking hall.

### 4.2.2. E-banking benefits to the customers

**TABLE 4. 3 benefit of E-banking to the customers**

| Benefit of e-banking to the customers | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Freq | % | freq | % | Freq | % | Freq | % | Freq | % |
| ATM enables 24 hour accessibility to the bank service. | 5 | 16.6 % | 15 | 50% | 0 | 0% | 6 | 20% | 4 | 13.3% |
| Mobile banking enables 24 hour accessibility to the bank service | 21 | 70% | 5 | 16.7% | 0 | 0% | 4 | 13.3% | 0 | 0% |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Internet banking enables 24 hour accessibility to the bank service. | 8 | 26.7 % | 14 | 46.7% | 0 | % | 6 | 20% | 2 | 6.7% |
| ATM enables customers to use bank services conveniently | 13 | 43.3 % | 12 | 40.7% | 0 | 0% | 4 | 13.3% | 1 | 3.3% |
| Mobile banking enables customers to use bank services conveniently. | 24 | 80% | 6 | 20% | 0 | 0% | 0 | 0% | 0 | 0% |
| Internet banking enables customers to use bank services conveniently | 13 | 43.3 % | 10 | 33.3% | 0 | 0% | 5 | 16.7% | 2 | 6.7% |
| ATM saves time of customers | 9 | 30% | 15 | 50% | 0 | 0% | 5 | 16.7% | 1 | 3.3% |
| Mobile banking saves time of customers | 25 | 83.3 % | 5 | 16.7% | 0 | 0% | 0 | % | 0 | 0% |
| Internet banking saves time of customers | 14 | 46.6 % | 12 | 40% | 0 | 0% | 4 | 13.3% | 0 | 0% |

Source: questionnaires' (2020)

In relation with accessibility of e-banking services, On the basis of the above table, 16.6%, 50%, 20%, and 13.3% strongly agree, agree, disagree, and strongly disagree respectively with 24-hour accessibility of ATM. On Mobile banking side 70%, 16.7% and 13.3% strongly agree, agree and disagree, respectively with 24-hour accessibility of Mobile banking. On Internet banking side

26.7%, 46.7%, 20% and 6.7% strongly agree, agree, disagree, and strongly disagree respectively with 24-hour accessibility of Internet banking. In general, e-banking tools (ATM, Mobile banking, and Internet banking) enable 24-hour accessibility of e-banking services.

In relation with convenience of e-banking services, On the basis of the above table, 43.3%, 40.7%,13.3% and 3.3% of respondents strongly agree, agree, disagree and strongly dis agree with convenience of ATM. On Mobile banking side 80%, 20% strongly agree, and agree no dis agree, and no strongly disagree respectively on convenience of Mobile banking. On internet banking side 43.3%, 33.3% and 16.7% strongly agree, agree, and dis agree respectively and only 2 respondents strongly disagree on convenience of Internet banking. In general, e-banking services (ATM, Mobile banking, and Internet banking) enable the customers to use e-banking services conveniently.

In relation with customer’s time saving of e-banking services, On the basis of the above table, 30%, 50% and 16.7% strongly agree, agree, and disagree respectively and only 1 respondent strongly dis agree with time saving of ATM. On Mobile banking side 83.3% and 16.7% strongly agree and agree respectively on time saving of Mobile banking. On internet banking side 46.6%, and 40% strongly agree and agree respectively and only 4 respondents dis agree on time saving of Internet banking. In general, this shows that e-banking services (ATM, Mobile banking, and Internet banking) enable the customers to

save their time.

**TABLE 4. 4 . Benefit of E-banking to the customers.**

| Benefit of e-banking to the customers | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Freq | % | Freq | % | freq | % | Freq | % | Freq | % |
| ATM banking services enable users to complete banking activities more | 20 | 66.7% | 8 | 26.6 % | 0 | 0% | 2 | 6.67% | 0 | 0% |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| easily. | | | | | | | | | | |
| Mobile banking services enable users to complete banking activities more easily. | 21 | 70% | 9 | 30% | 0 | 0% | 0 | 0% | 0 | 0% |
| Internet banking services enable users to complete banking activities more easily. | 14 | 46.7% | 10 | 33.3 % | 2 | 6.6% | 4 | 13.3% | 0 | % |
| ATM service makes easy access for money of customers. | 11 | 36.6% | 13 | 43.3 % | 0 | 0% | 4 | 13.3% | 2 | 6.7 % |
| Mobile banking service makes easy access for money of customers. | 18 | 60% | 12 | 40% | 0 | 0% | 0 | 0% | 0 | 0% |
| Internet banking service makes easy access for money of customers. | 14 | 46.7% | 9 | 30% | 5 | 16.7 % | 2 | 6.7% | 0 | % |
| ATM service increase customer satisfaction. | 11 | 36.7% | 9 | 30% | 0 | 0% | 6 | 20% | 4 | 13.3 % |
| Mobile banking service increase customer satisfaction. | 22 | 73.3% | 8 | 26.7 % | 0 | 0% | 0 | 0% | 0 | 0% |
| Internet banking service increase customer satisfaction. | 14 | 46.7% | 9 | 30% | 4 | 13.3 % | 3 | 10% | 0 | 0% |

Source: questionnaires' (2020)

In relation with easiest access of e-banking services to complete banking activities, On the basis of the above table, 66.7%, 26.7%, and 6.7%, of respondents strongly agree, agree, and disagree respectively with easiest accessibility of ATM. On Mobile banking side 70% and 30% strongly agree and agree respectively. No respondents dis agree and strongly dis agree with easiest accessibility of Mobile banking to complete banking activities. On internet banking side 46.7%, 33.3%, and 6.7% strongly agree, agree, and neutral respectively and only 4 respondents strongly dis agree  easiest accessibility of internet banking for the banking activities. In general, this shows that most of respondents agree with easy accessibility of e-banking services banking transaction to complete (ATM, Mobile banking, and Internet banking). This implies that using electronic banking is as easy as checking account balance and transfer of funds with just a click of mouse and touch of a button. From this survey it can be understood that it is a good way to use payment cards for making transactions through electronic devises.

Within regard of e-banking benefits of easy access for customer's money, On the basis of the above table, 36.6%, 43.3%, 13.3%, of respondents strongly agree, agree, and disagree respectively with easiest accessibility of ATM and only 2 respondents were strongly disagreed with this. On Mobile banking side 60%, and 40% of respondents strongly agree and respectively and only 2 respondents dis agree with mobile banking benefits of easy access for customer's money. On internet banking side 46.7%, 30%, and 16.7% strongly agree, agree, neutral, respectively and 50% dis agree and only 1 respondent strongly dis agree with easiest accessibility of internet banking. In general, this shows e-banking services (ATM, Mobile banking, and Internet banking) enables the customers to access their money easily.

In relation with enhancing satisfaction of customers, On the basis of the above table, 36.7%, 30%, 20%, of respondents strongly agree, agree, and disagree respectively with ATMs benefit of enhancing satisfaction of customers. On Mobile banking side 73.3% and % strongly agree and agree respectively. So, all the respondents agree with mobile banking benefit of enhancing satisfaction of customers. On internet banking side 46.7%, 30%, and 13.3% strongly agree, agree, neutral, respectively and only 3 respondents strongly dis agree with enhancing satisfaction of customers. In general, this shows that e-banking services (ATM, Mobile banking, and Internet banking) enhance satisfaction of customers.

## 4.3 Challenges of e-banking services.

### 4.3.1. Infrastructural challenges of e-banking services.

**TABLE 4. 5. infrastructural challenges of E-banking**

| Infrastructural challenges of E-banking | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly disagree | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Freq | % | freq | % | Freq | % | Frq | % | Freq | % |
| Lack of reliable power supply | 25 | 83.3% | 5 | 16.7% | 0 | 0% | 0 | 0% | 0 | 0% |
| Frequent power interruption | 26 | 86.7% | 4 | 13.3% | 0 | 0% | 0 | 0% | 0 | 0% |
| Low level of internet penetration | 11 | 36.7% | 14 | 46.7% | 3 | 10 % | 2 | 6.7% | 0 | % |
| Poorly developed telecommunication infrastructure. | 12 | 40% | 13 | 43.3% | 1 | 3.3 % | 4 | 13.3% | 0 | 0% |
| Brocken and slow internet connection. | 24 | 80% | 6 | 20% | 0 | 0% | 0 | 0% | 0 | 0% |
| Limitation in ICT infrastructure | 10 | 33.3% | 8 | 26.6% | 5 | 16. 7% | 5 | 16.7% | 2 | 6.7% |

Source: questionnaires' (2020)

The entire 100% of the employee were agree with that e-banking service is challenged by lack of reliable power supply,83.3% and 16.7%of them gives the response of strongly agree and agree respectively. This indicated that lack of reliable power supply is one of the major challenges that currently face e-banking services in commercial bank of Ethiopia.

Although, the entire 100% of the employee were agree with that e-banking service is challenged by Frequent power interruption, 86.7% and 13.3%of them gives the response of strongly agree and agree respectively. This also indicated that frequent power interruption is one of the major challenges that results reduction in the accessibility of e-banking services.

The other challenge of e-banking services is Low level of internet penetration. On the basis of the above table 36.7% and 46.7% of the respondents strongly agree and agree with e-banking challenges related with low level of internet penetration. Only 2 respondents dis agree on this. So, majority of the respondents agree with that low level of internet penetration is one of the major challenges of banking services

In addition, from the survey result presented in the above table, it can be seen that 40% of the respondents strongly agree with that Poorly developed telecommunication infrastructure is one of the challenges that affects e-banking services43.3% and 3.3% of the respondents agree and neutral respectively only 4 respondents representing 13.3% dis agree with this, so this indicated that Poorly developed telecommunication infrastructure is one of the challenges that affects e-banking services.

As shown in table above, all respondents agreed that electronic banking services are facing the challenges of Brocken and slow internet connection. As per the results of the survey, 80% and 32.25% of the respondents strongly agree and agree with the Brocken and slow internet connection. From this, it can be understood that using electronic banking is getting difficult due to low speed of connection and low internet access in the country.

From the survey result presented in the above table, it can be seen that 33.3% of the respondents strongly agree with Limitation in ICT infrastructure is one of the challenges that affects e-banking services. 26.6% and 16.7% of the respondents agree and neutral respectively only 2 respondents representing 6.7% dis agree with this, so this indicated that Limitation in ICT infrastructure is one of the challenges that affects e-banking services in commercial bank of Ethiopia.

## 4.3.2. Illiteracy related challenges of e-banking services

**TABLE4. 6. illiteracy related challenges of E-banking**

| Illiteracy related challenges of E-banking | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly disagree | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Freq | % | Freq | % | freq | % | Freq | % | Freq | % |
| Lack of educated and efficient staff in e-banking context. | 13 | 43.3% | 7 | 23.3 % | 0 | 0% | 6 | 20 % | 4 | 13.3% |
| Lack of customer awareness with E-banking product. | 21 | 70% | 9 | 30% | 0 | 0% | 0 | 0% | 0 | 0% |
| Customers dis ability to access e-banking services | 14 | 46.7% | 9 | 30% | 0 | 0% | 5 | 16.7% | 2 | 6.7% |
| Customer low levels of computer literacy. | 16 | 53.3% | 10 | 33.3 % | 2 | 6.7 % | 2 | 6.7 % | 0 | 0% |
| Lack of demand from the customer's side | 12 | 40% | 11 | 36.7 % | 0 | % | 5 | 16.7% | 2 | 6.7% |

**Source: questionnaires' (2020)**

Based on this, the respondents were asked whether or not lack of educated and efficient professionals is a challenge to administer e-banking technologies. In this regard, the majority of the respondents (66.7%) strongly agrees and agrees with that lack of educated and efficient professionals is one of the challenges that are facing e-banking services. thus; only 20% and 13.3% of respondents disagree and strongly disagree.  This implies that, the bank is facing a problem in resolving problems encountered while provision of electronic banking services.

In addition, from the survey result presented in the above table, it can be seen that 70% of the respondents replied that the banks are not providing any training to enhance the awareness level of customers. From this result, it can be understood that banks are only concerned with the provision of electronic banking service and they give less emphasis on encouraging customers to use electronic banking services. From this, it can also be understood that they are not considering the complaints of the customers which bring negative feeling for the customers.

The result that is shown in the above table reveals that the majority of the respondents (76.7%) strongly agree and agree with that customers dis ability to use the electronic banking services is one of the challenge that is facing using of e-banking products. this implies that e-banking products are not adapted to disabled and elder people who either need support or who are lacking ability to use e-banking products.

From the survey result presented in the above table, it can be seen that 53.3% of the respondents strongly agree with that Customer low levels of computer literacy is one of the challenges that affects e-banking services. 33.3% and 6.7% of the respondents agree and neutral respectively only 2 respondents representing 6.7% dis agree with this, so this indicates that Customer low levels of computer literacy is one of the challenges that affects e-banking services.

The other challenge of e-banking services is Lack of demand from the customer's side. On the basis of the above table 40% and 36.7% of the respondents strongly agree and agree with e-banking challenges related with Lack of demand from the customer's side. So, this implies that Lack of demand from the customer's side is one of the challenges facing provision of e-banking services. This problem may arise due to insufficient awareness of customers about e-banking products.

**TABLE 4. 7 . The Prospect of e- banking.**

| Items | NO of respondent and percentage | | | | | |
|---|---|---|---|---|---|---|
| | Yes | % | NO | % | TOTAL | % |
| 1. Do you have e- banking is attracting high value customers? | 27 | 90% | 3 | 10% | 30 | 100% |
| 2. Is e- banking substantial advantage to increase revenue? | 29 | 96.7% | 1 | 3.3% | 30 | 100% |
| 3. Is e-banking faster than withdrawing when it is compared to that of using a bank book? | 25 | 83.3% | 5 | 16.7% | 30 | 100% |
| 4. Is available at e-banking at any time to withdraw money? | 23 | 76.7% | 7 | 23.3% | 30 | 100% |

Source: questionnaires' (2020)

As reported in table 4.8, item (1), 27 respondent ,representing 90% believe that providing e – banking is attracting high value of customers by using electronic channels like (ATM, Mobile banking)have the benefit of building good image, load reduction that enables bank employees to focus on strategic issues instead of focusing on traditional activities and improvement of organizational performance through time .while the remaining, 3 respondents, representing 10%e- banking is not attracting customers. Since e- banking services as a means of serves delivery have also the benefits assisted by each respective bank in the above table. In general, according to the respondent's response as listed in the above table, it is possible to conclude that delivering banking products through electronic channels made the bank benefited.

it is true that a new system development faces a merit and demerit for the individual customer, for the firm, industry. The above item number two (2) the majorities of the 29 respondents, representing 96.7% need to determine a substantial advantage to increases revenue of the system for the use e- banking. While the remaining 1 respondent, representing 3.3% three is no advantage to increases revenue.

Item number three (3) concerning with the issue of positive outcome or the necessity of the card the above table contains the significant alternative that yield from using ATM card the target 25 respondents, representing 83.3 % uses ATM card much faster than withdraw compared to bank book for its accessible as of demand primarily those individual customers wants to withdrawal they required amount without the limitation time, workday. Whereas the remaining 5 of them, representing 16.7% are commonly used for its accessibility is not much faster than withdrawing by using bank book account, absence of exposed to theft in fact all are important items listed by the researcher when using ATM card. This leads to e- banking to become more effective.

As the above table item four (4) the majorities of the 23 respondent, representing 76.7% of respond at that it is available to withdraw money at any time by using e- banking. While the reaming 7 respondent representing 23.3% it is not available to withdraw money at any time by using e- banking. From this the researchers concluded that by using e- banking is withdrawing money to any time.

## 4.2 Discussion of the Result

Under this section, specifically the researcher analysis in detail the result of the data collected through questioner and focused group discussion. The current study shows that there were so many benefits that e-banking provides to the bank and to the customers and also shows different e-banking challenges as of infrastructural, illiteracy related services in commercial bank of Ethiopia Wolkite branch.

## E-banking benefits to the bank

The result of the finding shows that, there are so many benefits the bank deriving from delivering e-banking services. Some of these major benefits the bank derives from provision of E-banking services includes; Improving customer services, Facilitating the work to be done fast, helping to facilitate work with minimum error, Simplifying the activity of employees of the bank to deliver service to customers, Enhancing the image of the bank, improving efficiency, reducing paper work, Increasing Revenues of the bank, reduction of cost, and improves relationship with customers. Almost all respondents agree with that of the above listed benefit of e-banking to the bank.

This finding is consistent with some existing findings in the literature. Such as (Meskerem, 2016), (Yonas, 2017), (Dawd, 2009), (Olga, 2003), (Shah and Clarke, 1997) and (Devamohan, 2002). Mainly A study done by Shah and Clarke (1997) have revealed that almost all the above listed benefits as the benefit the bank derived from providing e-banking services.

## E-banking benefits to the customers

E-banking was a form of banking service where funds are transferred through an exchange of electronic signal between financial institutions, rather than exchange of cash, checks, or other negotiable instruments. The data collected from questioner founds that, E-banking services provides variety of benefits to the customers. The result from focused group discussion founds that the general system of e-banking provides variety of services to the customers. The respondents agree with e-banking benefits related with ease of use and time saving but, they argue the service currently provided by commercial bank of Ethiopia Wolkite branch in relation with convenience and customer satisfaction.

The problems include; frequent connection failure, Insufficient number of ATM machines to satisfy Large number of ATM customers, Insufficient variety of services within one e-banking product or other new products, Inability to create connection between individual customers and business organization, Focus of commercial bank of Ethiopia only increasing quantities of customers.

The customers can avail 24 hours a day and 7 days a week access to banking services at anywhere. With the help of e-banking, the easy access to the banks will be another advantage to the customers. Thus the e-banking provides sophisticated services to the customers (Devamohan, 2002).

## Infrastructural challenges of e- banking

From the results of the survey presented in the above table, there are infrastructural challenges that are currently facing e-banking services in commercial bank of Ethiopia. This infrastructural challenge includes; lack of reliable power supply, frequent power interruption, Low level of internet penetration, poorly developed telecommunication infrastructure, Brocken and slow internet connection, and Limitation in ICT infrastructure. Majority of respondents agreed on the above listed infrastructural challenges. The result of the focused group discussion shows that, infrastructural challenges as of frequent power interruption and slow and Brocken internet connection, Low level of internet penetration and poorly developed telecommunication infrastructures are the major challenges that currently commercial bank of Ethiopia faces.

The results are consistent with the findings of Gardachew (2010); Tan & Wu (2002); Martinson (2001); Trappey et al. (2001); Wondwossen and Tsegai (2005); kumaga (2010); Gibbs et al. (2003); and Iacovou (1995) who found infrastructural challenges such as Frequent power interruption, Low level of internet penetration, poorly developed telecommunication infrastructure, Brocken and slow internet connection, and Limitation in ICT infrastructure that hinders the adoption of E- banking.

## Illiteracy related challenges of e-banking

One of the major challenges in Ethiopia is high illiteracy rate. The result obtained from questionnaire indicates that Lack of educated and efficient staff in e-banking context, Lack of customer awareness with E-banking product, Customer low levels of computer literacy and Customers dis ability to access e-banking services is the major illiteracy related challenges that hinders to adopt e-banking services.

The result obtained from focused group discussion is also consistent with questionnaires result. They agreed that Lack of customer awareness with E-banking product, Customer low levels of computer literacy and Customers dis ability to access e-banking services is the major illiteracy related challenges that hinders to adopt e-banking services.

They agreed that to reduce the impact of illiteracy related challenges enhancing awareness of customers is a major solution because the bank activity to create awareness to the customers is not sufficient. The results of the questionnaire as well as the focused group discussion are consistent with the findings of Wondwossen & Tsegai (2005), Gardachew (2010) and Yonas (2017).

## Prospects of e-banking

Electronic banking offers substantial advantages to net dwellers in the form of enhance convenience time saving ability to buy and sell many bank places, and in the emergent market space electronic transaction between citizens and government render the opportunities for letter to collect "customer "information that can be used as an important input to operation and policy decision-making. Online identification technologies have, thus been sophisticated allowing access to individual personal details (Turban, 2008). The researcher tried to discuss and complement the result obtained from questioners in the respondents can be use

# CHAPTERE FIVE

# 5. CONCLUSION AND RECOMMENDATION

## Introduction

This chapter as a whole presents the conclusion remarks for the main findings and important recommendation as per the main issues observed in this study.

## 5.1 Conclusion

The study aims at analyzing challenges and prospects of E banking in commercial bank of Ethiopia based on the perception of its clerical staff that have better know- how and believed to have direct interaction with customers and customers that believed to have sufficient knowledge in the service delivery system.

The main objectives of the research include analyzing the e-banking services to the customers and to the bank as well as analyzing the challenges of e-banking services as of infrastructural, illiteracy related challenge.

E-banking technology helps customer for quickly access account, reduces time spending in the bank and other services. Customers who Users of e-banking reduce time that spend in branch, because he/she use e-banking does not need to come branches. Easily access account without support of banker simply, the customer consider the bank exist in your mobile or ATM card.

To address these objectives, a descriptive research approach was employed and primary data was collected through survey questionnaires from all staff of commercial bank of Ethiopia Wolkite branch and that of focused group discussion from Four customers. Frequencies and percentage were used to analyze the responses of commercial bank of Ethiopia Wolkite branch clerical staffs of challenges of E-banking services.

Languages are an obstacle to use electronic-banking. Services provide especially mobile banking and internet on English is a serious problem for customers. Customers who are not more educated (high school or below) not smoothly running using website and even in a simple dial up of *889# for farther as much as they need all services of electronic banking

The study also revealed that the infrastructure required for successful implementation of electronic banking was under developed. In this regard, especially the telecommunication infrastructure found to be poor to perform electronic based transactions and this becomes a serious challenge for the development of E-banking in the country. Regarding this, the study indicated that there was a very slow internet connection and low distribution of internet network in the country.

## 5.2. Recommendations

Based on the above mentioned conclusions, the researcher recommends the following points:

- ❖ The Banks should create deep awareness to community concerning the E-banking products they offer and the benefits associated with using E-banking services through advertising their products and services on the internet, mass media as well as through organizing public exhibition and talk shows. Besides, the bank should attract the community to use the technology by diverse incentive campaigns.
- ❖ Banks should work to improve customers' confidence by providing adequate security of transaction back up of critical data files and alternative means of processing information
- ❖ For the successful implementation of E-banking system telecommunication infrastructure, is a major prerequisite. Therefore, the government should support the electronic banking sector by investing on telecommunication infrastructure development. In this regard, Ethio-telecom needs to provide these banks to have a better and quality network having a higher bandwidth. By doing so, the existing quality of internet connection should also be improved until such time that successful implementation is achieved.
- ❖ Control the interruption of electric power and network failure even if those are external factor, the bank should try to choice other options in order to keep the interests of his customer.

## 5.3- Further Research Areas

This study was conducted to identified challenges and prospects of E-banking services in commercial bank of Ethiopia Wolkite branch. Hence, the study could be also extended to include all other Commercial Banks found in Ethiopia so that the findings can be useful to conclude about E-banking services in Ethiopian context. In addition to this, since this study was conducted on descriptive research design, further researcher has a benefits to extend and to explain this studies by using different methodologies.

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# APPENDIXES

## WOLKITE UNIVERSITY

## COLLEGE OF BUSINESS AND ECONOMICS

## DEPARTMENT OFACCUNTING AND FINANCE

The researcher was a student of the Wolkite University. The aim of this questionnaire was to collect information for research to be conducted on the challenge and prospects of E-banking in Ethiopia. This questionnaire is designed to collect data for examining the challenges and assessing the prospects of electronic banking in commercial bank of Ethiopia Wolkite branch. The information that you offer me with this questionnaire will be used as a primary data in the research which I am conducting as a partial requirement for BA degree in accounting and finance. Hence, this research was believed to be evaluated in terms of its contribution towards investigating the challenges and prospects of electronic-banking along with its contribution to improvements in the banking industry of Ethiopia.

Student Name: SWENET ASSEFA

The Title: *Challenges and prospect of E-Banking commercial bank in Ethiopia Wolkite branch*

Thank you in advance for your cooperation

Instruction

l. Do not write your name

ll. Circle your best response to the questions and write your answer on the space provided

lll. Attempt all question

***Section* I*: General information of respondents:***

Put tick **( √ )** mark in the appropriate box for questions that involve choices & provide brief statement for open end questions in the appropriate space.

***1. Gender:*** Male Female

***2. Age:*** < 20 years 20-30 31-40 41-50 above 50

***3. Education:*** Diploma First degree Master’s Degree

**4. Work experience**: < 2 years 3-5 year 6- 10 year > 10 years

**Section II: Questionnaires related with the benefits the Electronic banking services**

1. Benefits of E-banking services to the bank

| NO | The following are some of the benefits the Banks E-banking system, please indicate your choice. | Strongly agree | Agree | Neutral | Disagree | Strongly dis agree |
|---|---|---|---|---|---|---|
| 1. | Increase Revenues of the bank. | | | | | |
| 2. | Helps to perform transaction at lower cost. | | | | | |
| 3. | Increases the productivity of the bank. | | | | | |
| 4. | Reduces paper work | | | | | |
| 5. | Improving transaction speeds. | | | | | |
| 6. | Reduce queues in the banking hall | | | | | |

2.Benefits of E-banking services to the customers.

| NO | The following are some of the benefits the customers realized from using of E-banking services, please indicate your choice. | Strongly agree | agree | neutral | Dis agree | Strongly dis agree |
|---|---|---|---|---|---|---|
| 1. | ATM enables 24 hour accessibility to the bank service. | | | | | |
| 2. | Mobile banking enables 24 hour accessibility to the bank service. | | | | | |
| 3. | Internet banking enables 24 hour accessibility to the bank service. | | | | | |
| 4. | ATM enables customers to use bank services conveniently. | | | | | |
| 5. | Mobile banking enables customers to use | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | bank services conveniently. | | | | | |
| 6. | Internet banking enables customers to use bank services conveniently. | | | | | |
| 7. | ATM saves time of customers. | | | | | |
| 8. | Mobile banking saves time of customers | | | | | |
| 9. | Internet banking saves time of customers | | | | | |
| 10. | ATM banking services enable users to complete banking activities more easily. | | | | | |
| 11. | Mobile banking services enable users to complete banking activities more easily. | | | | | |
| 12. | Internet banking services enable users to complete banking activities more easily. | | | | | |
| 13. | ATM service makes easy access for money of customers. | | | | | |
| 14. | Mobile banking service makes easy access for money of customers. | | | | | |
| 15. | Internet banking service makes easy access for money of customers. | | | | | |
| 16. | ATM service increase customer satisfaction. | | | | | |
| 17. | Mobile banking service increase customer satisfaction. | | | | | |
| 18. | Internet banking service increase customer satisfaction. | | | | | |
| 19. | ATM Reduce queues in the banking hall. | | | | | |
| 20. | Internet banking Reduce queues in the banking hall. | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21. | Mobile banking Reduce queues in the banking hall. | | | | | |

Section III: Questionnaires related with the challenges of Electronic banking services.

| Challenges | **No** | Please indicate the extent you agree or disagree of the Potential challenges that affect to development use of E-banking technologies. | Strongly agree | agree | neutral | disagree | Strongly dis agree |
|---|---|---|---|---|---|---|---|
| INFRASTRUCTURAL CHALLENGES | 1. | lack of reliable power supply | | | | | |
| | 2. | Frequent power interruption | | | | | |
| | 3. | Low level of internet penetration. | | | | | |
| | 4. | Poorly developed telecommunication infrastructure. | | | | | |
| | 5. | Brocken and slow internet connection. | | | | | |
| | 6. | Limitation in ICT infrastructure | | | | | |
| ILLITRACY RELATED CHALLENGES | 1. | Lack of educated and efficient staff in e-banking context. | | | | | |
| | 2. | Lack of customer awareness with E-banking product. | | | | | |
| | 3. | Customers dis ability to access e-banking services | | | | | |
| | 4. | Customer low levels of computer literacy. | | | | | |
| | 5. | Lack of demand from the customer's | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | side. | | | | | |

Section IV. QUESTIONS RELATED WITH PROSPECTS OF E-BANKING.

1. Do you have e-banking is attracting high value customers?

A. YES B. NO

2. Is e-banking increase revenue?

A. YES B. NO

3. is e-banking faster than withdrawing when it is compared to that of using bank book?

A. YES B. NO

4. Is available e- banking at any time to withdraw money?

A. YES B. NO

______________________________________________________________________

______________________________________________________________________

***Thank you for your cooperation!***