



SAINT MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

The Practice, Challenges and Opportunities of
E-Banking Service in Zemen Bank S.C

By

Wegayehu Abiye

January 2019

Addis Ababa, Ethiopia



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**The Practice, Challenges and Opportunities of
E-Banking Service in Zemen Bank S.C**

A Thesis Submitted to St. Mary's University, School of Graduate Studies in
Partial Fulfilment of the Requirements for the Degree of Master of Business
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DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Zemenu Aynadis (Assistant Professor). 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.

Name

Signature & Date

ENDORSEMENT

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

Advisor

Signature & Date

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Acronyms

ACCH	Automatic Cheque Clearing House
ATM	Automated Teller Machine
ATS	Automated Transfer System
AVR	Automated Voice Response
CSFs	Critical Success Factors
E-Banking	Electronic Banking
E-commerce	Electronic Commerce
ECX	Ethiopian Commodity Exchange
EFT	Electronic Fund Transfer
E-payment	Electronic Payment
ICT	Information Communication Technology
IT	Information Technology
NBE	National bank of Ethiopia
NPS	National Payments System
PC	Personal Computer
PDA	Personal Digital Assistance
POS	Point of Sale
PSS	Premium Switch Solution
RTGS	Real-Time Gross Settlement
PIN	Personal Identification Number
SME	Small and Medium Enterprise
SMS	Short Message Service
TA	Technology Associates
TAM	Technology Acceptance Model
TOE	Technology Organization Environment
ZB	Zemen Bank

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Abstract

Though there are some progress, Ethiopian banking system is still underdeveloped compared to the rest of the world (Worku, 2010). In Ethiopia Cash appears to be the most governing medium of exchange and electronic payment systems are at an early stage. This study was aimed to assess the main practice, challenges and opportunities of E-Banking in Ethiopia. The study was conducted based on the data gathered from selected 15 Addis Ababa banking centers of Zemen Bank S.C. Qualitative and quantitative research approach was used to answer the research questions that emerge through the review of related literature in respect of the E-Banking system in Ethiopia. The study was statistically analyzed by using data's obtained from the survey questionnaire and interview. The study used descriptive statistics.

Result of the study indicated that recently the E-Banking practice is growing in an increasing rate and NBE is also trying to support such activity by introducing different payment infrastructure. The study also identified that the major barriers Zemen Bank faces in the practice of Electronic banking are, lack of well-organized ICT infrastructure, lack of Support from government, absence of legal frame work, High rates of illiteracy, frequent power and network interruption, fear of risk and unavailability of competent and skilled employee.

The study suggests a series of measures which could be taken by the bank which is expected to apply for the banking industry too and by government to address various challenges identified in the thesis. These measures include: Establishing a clear set of legal frame work on the use of technology in bank, supporting the bank by investing on ICT infrastructure and also the bank needs to be focused on technological innovation competition rather than traditional bases of retail bank competition, strive on enhancing customer awareness towards using E-Banking services. Invest on the staffs of the bank to enhance their competence.

CHAPTER ONE

1. Introduction

1.1 Background of the study

A strong banking industry is an important element in every country and can have a significant effect in supporting economic development through efficient financial services (Salehi and Azary, 2008). According to Nyangosi, Arora & Sumanjeet (2009), banking through electronic channels has gained popularity in recent years. This system, popularly known as “E-Banking”, provides fast delivery of banking services to a wide range of customers. Now a days internet is one of the most successful innovations in the world, that has created number of opportunities as well as threats for organizations in various business and service sectors, forcing them to depend on it (either willingly or unwillingly) support their products or deliver their services ‘online’ using the Internet as the distribution channel (Chau & Lai, 2003). The security first network bank was the first in introducing E-Banking in the world that was built in 1995 in USA. After that some famous banks introduced their internet banking one after another (Malak 2007), such as Citibank and bank of America. But there have been several major challenges and issues. Taking advantage of information and communications technology (ICT) is an increasing challenge for developing countries. Established in October 2, 2008, Zemen Bank was the only Ethiopian bank anchored in the idea of single branch banking, by launching multi-channel banking, a service which is new to Ethiopian banking industry in its first year of operation (Annual report of Zemn Bank, 2009).

The banking industry in Ethiopia is underdeveloped and therefore, there is an all immediate need to embark on capacity building arrangements and modernize the banking system by employing the state of the art of technology being used anywhere in the world (Gardachew, 2010). With a growing number of import-export businesses, and increased international trades and international relations, the current banking system is short of providing efficient and dependable services (Gardachew, 2010). Considering the low extent of development of ICT infrastructure in

developing countries, when compared with the developed countries E-Banking has not really been able to diffuse into society given the low rate of internet access (Banji & Catherine, 2004).

Electronic funds transfer has been described as the third of the great ages of payment, the first being payment by cash (notes and coins) and the second being paper based payment (for instance, cheques) (Kilonzo, 2007). Since there can be many potential problems related with E-Banking system, it is necessary to develop a sound atmosphere for E-Banking like strengthen the construction of the network infrastructure. In order to encourage further E-Banking adoption in developing countries, a better understanding of the barriers and drivers impacting E-Banking adoption is critical (Zhao, 2008). Most banks in developed and some in developing parts of the world are now offering E-Banking services with various levels of sophistication (Ackah, 2014). Hence, given the almost complete adoption of E-Banking technology in developed countries, the reason for slow adoption of E-Banking technology in developing countries like Ethiopia is an important research that is to be addressed by this paper.

1.1.2 Background of the organization

Zemen Bank has opened its door to the public in October 2, 2008 by the capital contribution of its 2800 shareholders, with the vision to bring a new dynamism to the financial sector and the banking business in Ethiopia. The founders of the bank believe that Zemen Bank is Proudly Ethiopian, professional, dynamic, world class, inspirational and totally customer focused. Values of the bank include: Upholding the highest standards, being progressive, proud and innovative. Moreover it has been given Personality which is to be challenging, spirited, provocative, ambitious and successful and to be friendly and courteous in all relationships (Zemen Bank Annual report, 2009)

The then board chairman Ato Ermiyas Amelga on his first year of operation report of the bank for the physical year 2008-2009 he mentioned that “*Zemen Bank has only been open for nine months, but we are already well advanced in making our vision a reality, by installing world-class information technology that costs us 24 million ETB*” by introducing the use of multi-channel banking (such as ATMs, Internet and Mobile banking), and by offering unparalleled customer service tailored to the unique circumstances of its clients.

He also gave his words to the customers of the bank by stating that the year ahead will deliver the convenience of multi-channel banking services that have been promised since the launch of Zemen Bank, including ATMs, Internet Banking, SMS, and Call Center Banking. All these services are now up and running and will provide clients with tremendous ease and convenience on many fronts. To name a few examples: cash withdrawals are now available 24 hours/7 days a week from our ATMs; individuals can get instant account information by phone; and business clients can easily download their daily or weekly transaction records from the comfort of their offices. These technology-based services are only the start of our ambitions in this area and we aim to leverage our technological advantage to bring even more innovation and convenience in the coming years, including (pending regulatory approval) facilities such as express remittance services, automated payroll services, money transfers using mobile phones, and bill payment services. In short, we see a bright future in technology-based banking and plan to successfully deliver our promises to our shareholders and our customers in the years ahead (Zemen Bank Annual report, 2009, page 5).

Zemen Bank's deposit mobilization efforts are concentrated on high-value depositors and include three types of accounts targeted to different client segments: (i) a Basic checking/saving account (which requires a minimum deposit of Birr 25,000 to avoid monthly fees); (ii) a Prestige checking/saving account (Birr 100,000 minimum deposit to avoid monthly fees), and (iii) a Z-Club checking/saving account (Birr 500,000 minimum deposit to avoid monthly fees). Currently due to shift of strategy from single to limited branches the bank has introduced additional Basic saving account which requires 5,000 ETB minimum deposits to avoid monthly fees (Survey result, 2018).

In partnership with Offshoring 2.0 Technology Services PLC, the local affiliate of Eventive LLC USA has enabled the bank to mix international best practice with locally tailored solutions. From its very first day of operations, the Bank has implemented a retail banking software system (EZ Banker) that has allowed it to conduct electronically-based branch transactions. The software

installed has been integrated with several additional software products and made possible the Bank's offerings of services such as ATMs, Internet Banking, and SMS Banking. - ATM Banking services will be rolled out more extensively throughout this fiscal year. Our network of ATMs is projected to jump to 15 by June 2010 and increase even more substantially in the second half of 2010.- Internet Banking, which is already fully operational, will be enhanced further by additional customer-friendly features such as the ability to transfer funds from one account to another person's or company's account.- Call Center and SMS Banking will continue to enhance customer convenience by allowing customers to receive alerts and notices over the phone.-Payroll services, in which Zemen Bank handles the salary payment processes of a company, will also be introduced. A company can choose to have all its monthly salaries paid electronically, for example, with employees making cash withdrawals by using debit cards provided to them by Zemen Bank.- Other new products and services, most notable among which is (pending regulatory approval) the ability to send money to others by the use of one's mobile phones. (Annual report, 2010)

1.2 Statement of the problem

The growing information and communication technology is persuading every organization and institution in the world to be concerned and made it a priority, where Ethiopian banks would never be exceptional. In Ethiopia, cash appears to be the most governing medium of exchange and electronic payment systems is at an early stage. While E-Banking system is showing some improvement, it has also posed several challenges to the public, regulators and other stakeholders to adopt and switch this cash dominated banking system to an advance and more convenient electronic banking system where electronic signals could help reduce the time, cost and efficiency of the banking industry (Gardachew, 2010)..

E-Banking is a form of banking, where funds are transferred via electronic signals between financial institutions, instead of cash, checks, or other negotiable currencies. The ownership of funds and transfers of funds between financial institutions are recorded on computer systems connected by telephone lines. Customer's are identified by access code, such as a password or Personal Identification Number (PIN), rather than signature on a check or other physical

documents. E-Banking involves personal and corporate clients, and includes bank transfers, payments and settlements, documentary collections and credits, corporate and individual lending, card business and some others (UNCTAD, 2002).

Customers are reluctant to E banking

Although banks have shown great interest in offering IB services, research has shown that customers remain reluctant to use of the innovation. Despite the benefits that internet banking offers to customers, a large proportion of them are still remarkably reluctant in adopting it to perform their daily banking transactions (Santouridis & Kyritsi, 2014)

However, despite this importance of e-banking, closer observation shows that there are still long queues seen in some banking halls even as customer still handle too much cash, problem of frequent network failure which have adverse effect and inadequate awareness of available E-Banking products and services, even as empirical evidence shows that level of understanding of a product and its corresponding benefits determines the reactions of customers to it and patronage (Balanchandler, 2010).

Low development of ICT infrastructure,

Considering the low extent of development of ICT infrastructure in developing countries, when compared with the developed countries E-Banking has not really been able to diffuse into society given the low rate of internet access (Banji & Catherine 2004). In order to encourage further E-Banking adoption in developing countries, a better understanding of the barriers and drivers impacting E-Banking adoption is 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.

Recently, some research projects has been executed regarding the challenges, practices and opportunities related to the E-Banking service of Ethiopian banks but they are limited in number and has not been studied to greater extent and the main purpose of this study was investigating the challenges and opportunities in the implementation of electronic banking in Zemen Bank.

1.3 Basic Research Questions

The main question of this study was what are the challenges and prospects of E-Banking in the case of Zemen Bank S.C? Based on the above stated objective, the following research questions were answered:

1. What is the current practices and extent of E-Banking service in Zemen Bank?
2. What are the driving forces towards the adoption of E-Banking service in Zemen Bank?
3. What are the major challenges for the adoption of E-Banking service in the bank?
4. What are the existing opportunities for the adoption of E-Banking service in the bank?

1.4. Objectives of the Study

1.4.1 General objective

The main objective of the study was to determine the prospect and challenges of E-Banking in Zemen Bank S.C.

1.4.2 Specific objectives

The specific objectives that this research works trying to materialize were.

1. To explore the current practice and extent of E-Banking service in Zemen Bank..
2. To determine the driving forces towards the adoption of E-Banking service in the bank.
3. To identify the major challenges for the adoption of E-Banking service in Zemen Bank.
4. To find the existing opportunities for the adoption of E-Banking service in The bank.

1.5 Significance of the Study

In light of the above noble notion, the findings of the study will have practical importance through providing significant insight for decision makers at regulatory bodies at large and Zemen Bank for keen commitment towards expediting the implementation of branch less banking (E-Banking) to overcome the challenges ahead. As the study pin pointed specific prospects and challenges from different perspectives, the study conducted is intended to pave the way for various stakeholders to devise appropriate strategy on alleviating the challenges and harnessing the opportunities entailed to the business. The research also serves as a ground for further studies

and the finding of the study will initiate other researchers to perform a better and in-depth study on the area.

1.6 Scope of the Study

The study was limited in scope subject to the major players in the arena of E-Banking. Hence, from the Government side, the research was limited to NBE and Ethio-Telecom; from the Financial Institution perspective, the research was limited to Zemen Bank S.C. it would be more descriptive and helpful if it could include more banks in order to make the study more representative to the banking industry.

1.7 Limitation of the Study

The research is a descriptive study that was limited in scope and sample size. If all banks that are providing E banking were included, the study would be more comprehensive and inclusive. The geographical coverage was limited to Addis Ababa and the number of branches selected for the study was also limited. Thus, the findings of this study may not give a real reflection of the Ethiopian scenario in respect of the provision of E-Banking business for financial inclusion. However, given the above-mentioned limitations the researcher have tried to provide clear picture through making proper analysis of the different variables considered against the prospects and challenges and thereby other researchers may consider it for further studies based on the results found.

1.8 Organization of the Study

The research paper is organized into five chapters. Chapter one deals with introductory part consisting of background of the study, statement of the problem, basic research questions, objective of the study, significance of the study, scope and limitation of the study and organization of the paper. The second chapter reviews literatures related to the study. Under the third chapter methods and design of the research are discussed. The fourth chapter deals with the result and discussion part. And finally, the fifth chapter presents summaries of major findings, the conclusions and the possible recommendations.

CHAPTER TWO

2. Review of Related Literature

2.1. Definition of electronic banking

Banks have used electronic channels to do banking operations with both domestic and international customers. Currently, banks are mostly using electronic channels to receive instructions and deliver their products and services to their customers. Although the range of services provided by banks over the electronic channel varies widely in content, this form of banking is generally referred to as electronic banking (Azouzi, 2009).

The definition of electronic banking varies among researchers, because electronic banking refers to several types of services through which bank customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999). The definition of electronic banking used in this study is adopted from the Basel committee report which defined it as the provision of retail and small value banking products and services through electronic channels as well as a large value electronic payment and other wholesale banking services which are delivered electronically. Such products and services can include deposit taking, lending, account management, the provision of financial device, electronic bill payment, and the provision for other products and services such as electronic money (Basel committee on banking supervision, 2003). The benefit of E-Banking services starts from banks and moves on to customers. For banks, electronic banking is conceded a strategy weapon; help them to achieve competitive advantage and increase their market share. Furthermore, using electronic services can save the cost of resources, which are needed for traditional banking services (Jayawardhena and Foley, 2000). From the customers' point of view, Aladwani, (2001) found that e banking provides reliable easier and speedy services to customers than the conventional one. However, customers are still hesitant to use electronic banking services, because they are concerned with security issues, and they may not have the required skill to deal with the applications of electronic banking services (Ayriga, 2011).

Electronic Banking is a delivery of banking services to customers at their office or home with the help of electronic technology is termed as E-Banking. Daniel (1999) defines electronic banking as the delivery of bank's information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a

mobile phone with browser or desktop software, telephone or digital television. E-Banking is a brew of services that embody Internet banking, Mobile banking, ATM kiosks, Fund Transfer System, Real Time Gross Settlement RTGS (payment & settlement system), Credit/Debit/Smart/ Cards. Electronic funds transfer (EFT), is simply the use of electronic means to transfer funds directly from one account to another, rather than by check or cash (Malak 2007). The term of E-Banking often refers to online banking/Internet banking which is the use of the Internet as a remote delivery channel for banking services (Furst & Nolle 2002).

2.2. The Evolution of E-Banking

The banking industry is constantly updating its' service to the changes in customer preferences and needs, increasing competition from non-banks, changes in demographic and social trends, advancement of the information communication technology, channel strategies, and government regulations of the financial service sector (Byers & Lederer, 2001).

Innovation in E-Banking industry can be traced back to 1970, when the computerization of financial institutions gained momentum (Malak 2007), However ; a visible presence of this was evident to the customers since early 1980's, in New York where it was offered by major banks in that city, such as Citibank and Chase Manhattan. The United Kingdom banks started to adopt the concept in 1983 when the Bank of Scotland first introduced it. Back then it required a computer terminal, a monitor, and a telephone line. It was also offered through a numeric keypad on a telephone enabling sending messages to the bank. The early services were very basic ones such as viewing your bank statements and paying your bills online. It was not a full transaction banking service; however, it paved the way for the more comprehensive and sophisticated E-Banking services that we see today (Shannak, 2003).

In the 1990's, the use of the internet evolved when more people owned computers and were connected to the dial-up home internet. The first bank to offer the most comprehensive e-Banking services was the Stanford Federal Credit Union bank in 1994. This technological evolution and the spread of home internet usage meant customers enjoyed 24/7 e- Banking services. On the other hand, many customers during the 1990's did not trust the concept enough to make serious and substantial monetary transactions and did not think that internet banking was safe enough. This triggered a massive effort and investment by the offering banks to develop

more security features for their online banking services and promoting them in the market. The first bank to reach three million online banking customers was the Bank of America in 2001. Throughout the 2000's on-line banking started to grow and become more acceptable by customers. It covered most of the banking services range (Shannak, 2003).

Benefits of E-Banking for banks

One has to approach the branch in person, to withdraw cash or deposit a cheque or request a statement of accounts. In true E-Banking, any inquiry or transaction is processed online without any reference to the branch (anywhere banking) at any time. Providing E-Banking is increasingly becoming a "need to have" than a "nice to have" service. The net banking, thus, now is more of a norm rather than an exception in many developed countries. It should be noted that E-Banking can bring about various benefits for banks and their customers as well. It is obvious that cost savings, efficiency, gaining new segments of customers, improvement of the banks reputation and better customer services and satisfaction are primary benefits to banks (Jayawardhena & Foley, 2000).

Under the view of Robinson (2000), relevant costs for conducting a banking transaction via online are much lower than via a brick and mortar branch. Moreover, Sheshunoff (2000) contends that one of the most important factors influencing the adoption of E-Banking by banks is the need to build up strong barriers to customer exiting. Under the view of the author, once customers become familiar with the utilization of full service E-Banking, it is unlikely that they will change to another financial institution.

Such an argument can be supported by the consumer behaviour theory that switching costs are often very high in terms of time and efforts by consumers. Finally, the author emphasizes that the implementation of E-Banking can bring about many competitive advantages for banks in today's highly competitive banking market.

A research on E-Banking has been carried out in Denmark by Mols (1998). The author argues that E-Banking can play an important role in enhancing cross-selling and price differentiation. E-Banking can make favourable conditions for banks to provide customers numerous services 24 hours a day and 7 days a week. E-Banking can improve customer satisfaction with the bank due to the fact that it makes customers less price sensitive, and improve their intention to repurchase,

and more loyalty to the bank via providing more positive words of mouth about the bank than other bank customer.

Benefit of E-Banking for Customers

It should be noted that E-Banking is not only brings about benefits to banks but also to their customers. Thanks to the emergence of the Internet, banking transactions are no longer limited to time and geography. It is very easy for consumers throughout the world to access to their bank accounts 24 hours per day and seven days a week. Customers can enjoy a variety of services, especially services which are not provided by traditional bank branches (Pham 2010).

It is argued that one of the greatest benefits that E-Banking brings about is that it is not expensive or even free for customers to utilize E-Banking products/services. However, some people believe that prices appear to be one factor that is impedimental to the distribution of E-Banking (Sathye 1999). E-Banking can bring about convenience and accessibility, which will have positive effects on customer satisfaction and loyalty (Pham 2010). It is totally possible for customers to manage their banking transactions whenever they want and to enjoy improved privacy in their interactions with the bank.

It is contend by Turban (2008), that E-Banking is really beneficial to customers in terms of cost savings, no limit on time and space, quick response to customer complaints, and better services/products. Such benefits are believed to elevate customer satisfaction

E-Banking reaps benefits for both banks and customers. On side of the banks, E-Banking has enabled banks to lower operational costs through the reduction of physical facilities and staffing resources required, reduced waiting times in branches resulting in potential increase in sales performance and a larger global reach (Geetha & Malarvizhi, 2011). Grabner-Kraeuter & Faullant (2008) have stated that, E-Banking allows customers to perform a wide range of banking transactions electronically via the bank's website anytime and anywhere. In addition, customers no longer are confined to the opening hours of banks, travel and waiting times are no longer necessary, and access of information regarding banking services are now easily available (Hamlet, 2000).

Benefits to the Economy

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:

A. Reduction of the cost for printing cash notes and its related distribution

In a cash based economy, governments are required to invest a great deal of fund on printing of cash notes and distributing same to the public. Due to manual transfer of currency between individuals, the life of cash notes is very minimal. As a result of this frequent wear and tear, the magnitude and frequency of the investment on cash note printing as well as its related distribution is significant. In the case of electronic payment systems the transaction values are transferred from one account to another using electronic means, reducing the need for cash note distribution. Thus, by encouraging acceptance of payment cards, governments can achieve huge cost saving for their economy in terms of reducing cash note printing and related expenditure (Dawd, 2009).

B. Enhancement of Aggregate Deposit

When people start to increase the proportion of their saving compared to their daily consumption, the saved money can be utilized for investment purposes that in turn will create employment opportunities. This is a great benefit for the economy as a whole. However, individual savings could not bring this kind of impact. The benefit can only be obtained when savings are made in a banking system whereby the saved fund can be deployed to the economy in the form of loan to encourage the required investment (Dawd, 2009).

In an electronic payment card infrastructure people do not need to carry cash notes for their day to day expenditures as well as contingencies. They rather are encouraged to deposit their fund in the banking system and obtain a single plastic to access this fund at any time of the day when the need arises. This implies that unused funds are always in the banking system that helps to facilitate economic growth (Banji & Catherine, 2004).

C. Banking the un-banked

While the electronic payment card infrastructure is diversified, payroll for employees can be handled through this system. Besides creating ease and convenience, both for the employer as well as the employee, it enables individuals to enter into the banking system which they may not be interested otherwise (Dawd, 2009). Such impact of banking the unbanked population also has a benefit in increasing aggregate deposits as indicated above.

D. Increasing the potential for hard currency generation

Especially in developing economies, earning of hard currency is very essential to manage a country's balance of payment. The payment card system can bring a good potential of enabling

economies to earn more foreign currency. This can be realized by attracting tourists and by encouraging them to spend more. In today's world, availability of payment card infrastructure is one of the criteria that tourists set while they decide which country to visit. As a result countries that maintain a developed electronic payment card system has a better potential of being visited by tourists than those which do not establish the infrastructure. Hence, more tourists and increased hard currency as a result of diversifying payment card business (Dawd, 2009). Furthermore, due to the fact that travelers can access their account at home easily while staying in another country, where the payment card infrastructure is established, their chance of spending more is great. Travelers, being outside of their home country, feel more unsafe and uncomfortable to carry bulk amount of cash while on travel. Thus, they can be forced to spend only to the extent of the limited cash on hand during a certain period of stay in another country. On the other hand, if they can use their card for payment, they can spend more since they have the right to access their account back home safely and conveniently (Ibid, 2004).

2.3 E-Banking Devices in Modern Day Economy

ATM: Automated teller machine is a computer controlled device that dispenses and provides other services to customers who identify them with a personal identification number (PIN). The physical carriage of cash as well as frequent visit to the banks is being reduced. The principal advantage of ATM is that it dispenses cash at anytime of the day even as it needs not to be located within the banking premises but in stores, shopping malls, fuel stations etc. unlike the traditional method where customers have to queue for a very long period of time to withdraw cash or transfer funds.

GSM/Mobile banking: This mode of E-Banking primarily uses mobile phones as the electronic devices. Mobile phone gives customer the opportunity to operate their account with bank as long as their phones and network services provider support the SMS (short messaging service) which would enable the customer check account balance.

Point Of Sale Terminals: This mode of E-Banking handles cheque verification, credit authorization, cash deposit and withdrawal and cash payment. It enhances electronic fund transfer at the point of sales. Thus customers account would be debited immediately with the cost of purchase in an outlet such as a petrol station or supermarket. The implication of this is that customers can make payment for goods and services without necessarily coming in contact with

physical cash as the purchase price would be debited on the buyer's card and credited on the seller's account (Dawd, 2009).

Bankers automated clearing services: The automation focus of the instrument is to reduce the number of clearing days and improve on security arrangement in the course of settlement and collection of cheques. It involves the use of magnetic ink character reader (MICR) for cheque processing which makes it capable to encode, read and sort out cheques even as request for cheque books can be made via electronic devices.

Card System: It is a unique electronic payment type which involves the use of smart cards. Smart cards are devices with embedded integrated circuit being used for settlement of financial obligations. It can be used as credit card, debit card and even ATM cards. The power of these cards lies in its sophistication and acceptability to store and manipulate data as well as handling of multiple applications on one card securely

Internet/extranet 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.

2.4 Challenges of Electronic Banking

While many hold the view that Internet banking has many advantages for developing countries, there are a number of major challenges to overcome before it can fully exploit the benefits of E-Banking (Liao and Cheung, 2003). A number of constraints, specific to doing E-Banking in Africa, are also apparent (Akoh, 2001). These include low level of economic development and small per-capita incomes; limited skills with which to build E-Banking services; the number of Internet users needed to build a critical mass of online consumers and the lack of familiarity with even traditional forms of electronic commerce, such as telephone sales and credit card use (Kose, 2009).

Perhaps one of the greatest challenges to the adoption of Internet banking is the cultural reluctance to interface with business electronically. Such challenges remain major obstacles, limiting the potential benefits of Internet banking. Other challenges are the cost of implementation, security concerns, perceived customer readiness, lack of knowledge of ICT and E-Banking, the relatively high costs associated with investments in ICTs, the lack of technical and managerial skills and reluctance on the part of companies to network with other enterprises,

lack of executive support and concerns regarding the reliability of technology (Tan and Teo, 2000).

Gerrard, Cunningham and Devlin (2006) in a study sought to find out why some consumers shy away from using Internet banking. Common barriers they came up with include unsuitability for the type of business; enabling factors (such as availability of ICT skills, qualified personnel, network infrastructure); cost factors (ICT equipment and networks, software and re-organization); security and trust factors (security and reliability of e-commerce systems, uncertainty of payment methods, legal frameworks and Intellectual Property Rights); and challenges in areas of management skills, technological capabilities, productivity and competitiveness.

According to Chircu and Kauffman (2000), the lack of adequate information technology infrastructure remains a critical barrier in supporting the continual growth of online commerce. This position is supported by Akoh (2001) who asserts that the most critical barrier can be ascribed to the very limited information and communication infrastructure available in most countries, especially in Africa.

Hinson (2005) has advanced arguments that small firms in Ghana need to better strategize to take advantage of the Internet. Moorman, Deshpande, and Zaltman (1993) on their part have observed that lack of customer trust in the web system could restrict the opportunities from web technology. Min and Galle (1999), Lee and Turban (2001) argue that customers often do not trust Internet technology for three reasons: security of the system, distrust of service providers, and worries about the reliability of Internet services. Concern about security is one common factor related to unwillingness to use Internet channel for commerce. Security breaches can lead to numerous problems such as destruction of operating systems, or disruption of information access (Min and Galle, 1999). Stewart (1999) concurs with this by claiming that the failure of the internet in retail banking is largely attributable due to the lack of trust consumers have in the electronic channels.

2.5 Factors influencing Banks to adopt E-Banking system

Electronic banking adoption has gained special attention in academic studies during the past years to investigate factors of adoption. Many researchers have been using different frame works in the study of adopting new technological innovation. Among frameworks that have been developed based on the past studies includes,

- Technology Acceptance Model (TAM) (Pikkarainen, T, K.Karjaluoto, &Pahnila, S 2004),
- Theory of Reasoned Action (TRA) originally proposed by Fishbein and Ajzen (1975) (Gefen et al., 2003) and
- Theory of Planned Behavior (TPB) (Shih and Fang, 2004) originally proposed by Ajzen (1991).
- Technology-organization-Environment framework (TOE) Tornatzky & Fleischer 1990

1/ The Theory of Reasoned Action (TRA) is probably one of the most influential theories used to explain human behavior. According to this theory, the behavioral intention can be explained by the attitude towards behavior and subjective norm. The attitude towards behavior is defined as an individual's positive or negative feelings about performing the target behavior (Fishbein and Ajzen, 1975). Subjective norm refers to perception that most people who really matter to the individual think that he either should or should not perform the behavior in question" (Fishbein and Ajzen, 1975).

2/ The Theory of Planned Behavior (TPB) were proposed by Ajzen (1991) as an extension of TRA (Fishbein and Ajzen, 1975) for situations where people have incomplete volitional control. This suggests that a central factor in human behavior is behavioral intention, which is affected by attitude toward behavior, subjective norm, and perceived behavioral control (Ajzen, 1991). This construct reflects how people perceive the internal and external limitations to their behavior. It refers to how easy or difficult people believe it would be to perform certain behaviors (Ajzen, 1985).

3/ The Technology Acceptance Model introduced by Davis (1985) is one of the most cited theoretical frameworks to predict the acceptance and use of new information technology within organizations. This model derives from the TRA. The Technology Acceptance Model hypothesizes that system use is directly determined by behavioral intention to use, which is in turn influenced by users' attitudes toward using the system and the perceived usefulness of the system. Attitudes and perceived usefulness are also affected by perceived ease of use.

4/ Technology-organization-Environment framework (TOE) which identifies three basic Factors for the adoption of technological innovation, i.e., technological factors, organizational and environmental factors. TOE framework was proposed by Tornatzky and Fleischer; (1990) it is designed for studying the likelihood of adoption success of technology innovations. This

framework is a comprehensive and well received framework in the context of innovation adoption by organizations.

2.6 Banking History in Ethiopia

A reference to the Ethiopian history reveals that the first bank in the country, Bank of Abyssinia was founded during the regime of Emperor Menelik II in February 1905. Due to a foreign domination of its management (mainly the British), the then Bank of Abyssinia was forced to dissolve and in its place was established the Bank of Ethiopia in 1931 whose management was still left to foreigners due to the then lack of skilled manpower in the country. The Bank of Ethiopia was later replaced by the State Bank of Ethiopia soon after the war with Italy. The latter was the first bank in the country fully controlled and owned by the Ethiopian government. In the meantime, however, a number of foreign banks had opened their branches in the country, most of them with an interest to have control over the nation's economy. It was the State Bank of Ethiopia that gave rise to the present Commercial Bank of Ethiopia (CBE) and National Bank of Ethiopia (NBE). During the Dergue reign, CBE had remained as the only participant in the country's commercial banking sector. However, following the 1991 takeover by the present government and accompanying encouragement of private investment, a number of private banks have emerged in the country's financial sector. Accordingly, Monetary and Banking proclamation No.83/1994 and the Licensing and Supervision of Banking Business No.84/1994 laid down the legal basis for investment in the banking sector. Consequently, shortly after the proclamation the first private bank, Awash International Bank was established in 1994 (NBE, 2009).

2.7 Review of Commercial Banking Practices in Ethiopia

In Ethiopia, 16 private and two state owned banks are operating till the end of Jun.2018 Despite a rapid increase in the number of financial institutions since financial liberalization, the Ethiopian banking system is still underdeveloped compared to the rest of the world. The use of checks is mostly limited to government institutions, NGOs and some private businesses. The common banking functions provided by public and private banks in Ethiopia are deposit mobilization, credit allocation, money transfer and safe custody. Banks in Ethiopia are unable to improve customer service, design flexible and customized products, and differentiate themselves in a market where product features are easily cloned. Ethiopian banking is unable to come from long way of being sleepy to a high proactive and dynamic entity.

The Ethiopian banking industry as a whole has a network of 2,502 branches (Birittu, No. 120), which is the lowest compared to the size of the country (1.1 million square km) and number of population (more than 90 million) and this shows that the number of population being served by a single branch stood at around 34,373 (Birittu No. 120)

With such highly scattered branch network and disintegrated working system it is hard to ensure efficient flow of financial resources and optimize the contributions of the entire financial system to the development processes. All banks in Ethiopia are too late to move with technological advancement and they should clearly chart out the time schedule for their integration and technological advancement.

Some of the banks even today do not have information websites, which can help them to provide at least the information on financial services offered by them (NBE, 2008/09). The giant state owned commercial bank of Ethiopia had been issued only 1,806,876 debit cards, and has mobile banking user of 290,383 and internet banking user 9,781 till Dec. 2014 (Birittu no. 120). This is a very small number compared to the population size of the country and very scattered physical branch of the banks.

According to IMF data Ethiopia lag far behind from sub-Saharan African countries in terms of access of finance. (Birittu No. 120) Product of the Ethiopian Banking sector did not fully benefit from the current technology advancement. Out of nineteen fully operating commercial banks there are only six of them commencing mobile banking as per the directive No FIS/01/2012. This shows that how far the banking industry in Ethiopia is backward in comparison with the current world banking industry advancement and out late offerings.

2.8 Electronic Banking in Ethiopia

Undeniably the largest state-owned bank, Commercial Bank of Ethiopia, introduced ATM service for local users in 2001 with its fleet of eight ATMs located in Addis Ababa (Gardachew, 2010). Then after Dashen Bank came in to the picture in 2006 with its ATMs that provide service to Dashen Debit Cardholders and International Visa Cardholders coming to Ethiopia Dashen Bank, worked aggressively to maintain its lead in electronic payment systems. United Bank was the first to introduce telephone and Internet banking systems - including text messages (SMS) - by the end of 2008 (United Bank web report, 2015). Thereafter, Wegagen Bank has introduced Core banking system since July 2000 that helps to connect its head office with branches through network. The bank signed an agreement with Technology Associates (TA), a

Kenyan based IT firm, for the development of the solutions for the payment system and installation of a network of ATMs on December 30, 2008. Currently, Wegagen Bank is providing card payment services (through ATM and POS), internet banking as well as mobile banking services (Wegagen Bank web report, 2015)

Zemen Bank, which follows a single branching strategy, has launched prepaid bank card which can be used without opening deposit account at the bank also providing electronic payment services through ATMs located in various locations of the country. Some of the available services on Zemen Bank ATMs are: Cash withdrawal, Balance Inquiry, Ministatement, Fund transfer between accounts attached to a single card and PIN (Personal Identification Number) change. Currently, the bank gives debit service only for Visa cards (www.zemenbank.com).

The memorandum of understanding signed by three private commercial banks to launch an Automated Teller Machine (ATM) and Point of Sale terminal (POS) network, in February 2009 is welcoming strategy to improve electronic card payment system in Ethiopia. Three private commercial banks - Awash International Bank S.C., Nib International Bank S.C and United Bank S.C. – have established a joint company called Premiere Switch Solutions (PSS). During its first year of operation, PSS installed over 60 ATM machines and over 300 POSs across Ethiopia. If everything goes as planned, there will be one ATM at every branch of the consortium banks, all domestic airports serviced by commercial service, shopping complexes and merchants. The agreement is the first significant cooperation between competing banks in Ethiopia, which others should be encouraged to follow as there is no single bank in Ethiopia that can afford to provide extensive geographical coverage and access (Tamene, 2009).

Nib International Bank, one of the founding member banks of PSS, is providing the service starting from July 2012. Available services on Nib International Bank ATMs are: Cash withdrawal, Balance Inquiry, Mini statement, Fund transfer between accounts attached to a single card and Personal Identification Number (PIN) change. NIB's clients can withdraw up to Birr 10,000 in cash per day. Currently, the bank gives debit card service only for NIB Card holders. In addition, it has got the principal membership license from Visa International and MasterCard to accept international payment cards.

Certainly the banking industry in Ethiopia is underdeveloped and therefore there is an all immediate need to embark on capacity building arrangements and modernize the banking system by employing the state of the art technology being used anywhere in the world.

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

2.9 Challenges

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

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

banks; allows remote transactions facilities that replace physical presence of a customer in a bank branch and; increases transaction speed and accuracy. On the other hand, traditional banking is time-consuming and more costly and therefore, E-Banking is replacing traditional banking all over the world.

In addition, an exploratory study that was conducted in Zimbabwe by Chitura Tofara (2008) indicated that incompatibility with the existing system, cost of implementation, security concerns, lack of expertise, inadequate legislation and consumer acceptance are the major challenges of E-Banking in the country's banking industry. The same challenges may also be faced by Ethiopian banking industries to implement the E banking facilities. But the good thing is that the benefits outweigh the challenges in many parameters. Specially country like Ethiopia which have a huge potential customers for such service coupled with a fast growing economy will be the main advantages of the banking service to offer different products with the help of technology to their customers. In addition, as investigated by Alhaji Ibrahim H. (2009) using exploratory study, the following are among the critical challenges of E-Banking.

- Lack of Technological Infrastructure – the implementation of e-payment is being 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 and ICT Equipment

- Costs – where available, the cost of ICT is a critical factor relative to per capital income. This makes the cost of entry higher compared to developed countries.

- Regulatory and Legal Issues – inexistence of proper legal and regulatory framework.

- Non-readiness of banks and other stake holders (acceptability) – even though some have shown impressive willingness, some banks are still not fully ready 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

- Fear of risk among banks

- Lack of trained personnel in key organizations and

- Tendency to be content with the existing structures People are resistant to new payment mechanisms;

- Security – where disclosure of private information, counterfeiting and illegal alteration of payment data may be rampant.

- Frequent connectivity failure in telephone lines

- Frequent power interruption
- Wide spread Problem of internet connection

2.10 Prospects of E-Banking

According to M.s, M Rahman (2008) in Bangladesh E-Banking is now a global phenomenon. Apart from the developed countries, the developing countries are experiencing strong growth in E-Banking. The government's emphasis on setting up ICT park, raising allocation for developing ICT infrastructure, waiving taxes on computer peripherals and other measures including the automation program of banking sector and competition among the scheduled banks in improving customer services have accelerated the prospects of E-Banking.

The fact that the overall commercial banks branch in Ethiopia compared to the size of the population and the area of the country is very minimal, it creates a good advantage to expand E banking facilities and reach the wide spread population of the country through virtual banking system.

2.11 Empirical Literature Review

Some related studies are conducted by different researchers in different parts of the world. However, there are limited numbers of studies conducted in Ethiopia on the adoption of technological innovation. Specifically, Gardachew (2010) conducted research on the opportunities and challenges of E-Banking in Ethiopia. The aim of his study was focused on analyzing the status of electronic banking in Ethiopia and investigates the main challenges and opportunities of implementing E-Banking system. The author conducted a survey on the existing operating style of banks and identifies some challenges of using E-Banking system, such as, lack of suitable legal and regulatory frame works for E-commerce and E- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks. According to Gardachew (2010), Opportunities offered by ICT through e-learning programs and Commitment of the governments on development of ICT infrastructures is considered as drivers of using E-commerce and E-payment systems.

Wondwossen and Tsegai (2005) also studied on the challenges and opportunities of E-payments in Ethiopia; their objective was studying of E-payment practices in developing countries, Africa and Ethiopia. The authors employs interview and on site observation to investigate challenges to E-payment in Ethiopia and found that, the main obstacles to the development of E-payments are, lack of customers trust in the initiatives, Unavailability of payment laws and regulations

particularly for E-payment, Lack of skilled manpower and Frequent power disruption. According to Wondwossen and Tsegai (2005), an adequate legal structure and security framework could foster the use of E-payments, which is contradicting with the finding of the previous study

CHAPTER THREE

3. Research Design and Methodology

3.1 Research Designs

Among the three main classes of research designs, for this study descriptive type was selected. According to Robson (2002), Descriptive research is a type of research that is mainly concerned with describing the nature or condition and the degree in detail of the present situation. Creswell (2003) stated that the descriptive method of research is used to gather information about the present or existing condition.

The aim of this study was focusing on describing the current situation of the problem and examining the major challenges and opportunities of E-Banking in Zemen Bank. Moreover, this research was aimed to answer the research questions which were in the form of “what” and to highlight the most important factors that can negatively or positively affected the adoption and development of E-Banking in Ethiopia. Moreover, this research aimed to explain the phenomenon and assess the current practice of E banking. Therefore, Descriptive research was the best option to achieve the research objectives.

3.2 Research Approach

Research approach for this study was selected by researcher(s) based on the research purpose, the nature of the research, the problem area, and research questions (Alhamdani et al. 2006). The research approach in this study was chosen based on the purpose and the research questions set out to be addressed. In order to attain the objective of the study and answer the research questions, the researcher has adopted mixed research approach. The rationale of using a mixed approach was to gather data that could not be obtained by adopting a single method (Creswell, 2003). Hence, the basis of such approach helps to neutralize the limitations of applying a single approach in connection with the qualitative and quantitative nature of the research questions.

3.3 Population and sampling techniques

Population is the entire collection of items from which samples can be drawn (Yahiya, 2011). For this study, the population is Zemen Bank S.C. In order to undertake this study the researcher purposely sampled 15 branches which are currently operating in Addis Ababa and that are convenient to the researcher at the same time. So the study used purposive sampling technique.

Moreover the study used expert sampling as interviewees have a direct responsibility related to E-Banking issues. Hence, expert sampling in which persons with known or demonstrable experience and expertise in the area were interviewed. In this case IT staffs, branch managers, supervisors and customer service officers of the bank are the sources of primary data. Convenient sampling is considered as the data collection tool.

Table 3.1 Target population

Category	Population
Branch managers	12
Supervisors	28
Customer service officers	62
Total	102

Source Zemen Bank, 2018

Since the population size is manageable to administer questioniers the researcher will conduct census.

3.4 Source and Tools/Instruments of Data Collection

This study tries to assess the main practice, opportunities and challenges of E-Banking in Zemen Bank in order to address this issue the study was conducted by collecting data from both primary and secondary sources. Primary data was collected from the staffs of Zemen Bank based on structurally designed questionnaire. It included both closed ended and open-ended questions, which gives the respondents an opportunity for adequate expression of their view on the questions, semi structured interview were also used as data collection method. Mainly primary data sources were considered which were collected through questioners distributed for the 102 staffs of the bank and semi-structured interviews that were conducted with e-channel (IT) department manager, additionally secondary data's were also gathered from periodic reports, of the bank.

3.5 Procedures of Data Collection

In order to collect sufficient data and to answer the research questions, the researcher had designed two surveys. The first was a questionnaire to get quantifiable results. The second survey was interviews aimed to collect data from E-Banking managers. In addition to questionnaire and interview secondary data source has also been used. Structured questionnaires

were used for quantitative data's which were gathered from the 102 staffs of the Bank. Semi structured questions were used to gather qualitative data's through interview made with e channel manager of the bank. The filled survey on the bank's staffs was done by the researcher to conduct the Key Informant Interview by himself. In collaboration with some of the employees to facilitate data collection was a continuous task as to achieve expected responses on timely manner and on a voluntary basis. In addition, personal communication and continuous follow-up was made to increase the response rate.

3.5.1 Questionnaires

The researcher used standard questionnaire and slight adjustment was made by the researcher based on the research questions and the literature. The researcher used open and closed-ended type of questionnaires, which gives the respondents an opportunity for adequate expression of their view on the questions. Prior to conducting the survey, the questionnaire was pilot tested on postgraduate students and four professional staffs of Zemen Bank. Comments were asked on the clarity of the questions and the required adjustments in order to make the questions simpler. These respondents also gave their comments on understanding the instructions about the scaling and the time taken to answer the questions. Based on their comment all the necessary adjustments and corrections were made

Of the total 30 branches of the bank 15 branches which were operational in Addis Abba were included in the survey. The target respondents were professional staffs who had direct contact with customers. As per the secondary data (through interview made with human resource manager of the bank) number of professional staffs who were directly engaged in customer service was 102 (one hundred and two). Questionnaires were floated to all 102 professional staffs of the bank that directly involved in the delivery of the E-Banking. The respondents were considered as knowledgeable in the E-Banking service provided by the bank and know their customer very well.

3.5.2 Interviews

In order to have sufficient information regarding the research problem in addition to questionnaires, semi-structured interviews were conducted with E-Banking managers of the bank. The main purpose of this interview was to corroborate certain facts that the investigator already thinks have been established. Moreover, it helps to obtain new insights, yield rich data,

explore the topic in depth, enables flexibility to the interviewer in administering interview to a particular individual and helps in clarifying questions and cognitive aspects of the response (Kumaga, 2010).

3.6 Methods of Data Analysis

Data which were obtained through questionnaire were organized and analyzed with descriptive statistics, Creswell (2003) suggested to interpret qualitative data's, so data's collected via interviews and review of documents were interpreted qualitatively. Content/thematic analysis was used for data which were obtained through Key Informant Interview. Subsequently the data were interpreted and presented in a narrative form.

CHAPTER FOUR

4 Results and Discussions

This chapter deals with the presentation, analysis and interpretation of data gathered from both primary and secondary sources.

As it is discussed in the methodology part of this study, data collected by using different techniques were analyzed in this chapter. A total of 102 questionnaires were distributed to purposely sampled 15 Zemen Bank Addis Ababa branch staff. Out of the total 102 questionnaires, 98 Useable questionnaires were obtained (96% response rate). In addition to the questionnaire, the researcher conducted an interview with only E-payment/IT managers. Accordingly the following results were obtained.

4.1 Demographic information of the respondents

The study participants on survey questionnaire have different personal information; besides these differences they introduce different responses towards E-Banking practices, challenges, opportunities. The demographic profile of respondents, participated in this study was shown in table 4.1 as follow

Table 4.1: Respondents' Demographic profile

Variables	Classification of variables	Frequency	Percentage
Gender	Female	39	40%
	Male	59	60%
	Total	98	100%
Age	18-25	8	8%
	26-35	60	61%
	36-45	27	28%
	46-55	3	3%
	Total	98	100%
	0-2	18	18.3%
	2-5	13	13.3%

Work Experience	5-8	20	20.4%
	8-15	29	29.6%
	15-20	15	15.3%
	Above 20	3	3%
	Total	98	100%
Educational Level	12 complete	0	0%
	Diploma	5	5.1%
	BA,BSC	78	79.6%
	MA,MSC	15	15.3%
	PHD	0	0%
	Total	98	100%

Survey result, 2018

As it is shown on the above table, the higher percentage of participants in this study 62% are young (26-35 years old). Regarding their educational level 79% of the respondents are BA degree holders. When we see the experience of respondents we can observe that the highest portion (67%) have more than five years of experience. This implies that data's gathered from the respondents were reliable.

4.2 Practice of E-Banking in Zemen Bank

As per the information gathered from E-Banking manager of zemen Bank, the banks E-Banking service when compared to international banks it is at an infant stage. While compared with local banks it can be taken as fairly competent (i.e Mobile banking and ATM) and outstanding in internet banking.

The technology driven and a unique bank which work without widening branch network but introducing new products to the industry, Zemen Bank, introduce ATM, Internet and telephone banking at the beginning of 2011 with 15 ATM and now working with a total of 65 ATM. Dashin and zemen banks make an agreement of partnership to work together with their ATM through the “Q-Link” network, the first such ATM partnership active in Ethiopia which make the customers of Zemen and Dashen Bank benefit from the network which are available throughout Addis Ababa and several other cities. Though the bank acquires few number of ATM machines thanks to the Ethio-pay system that links all banks ATM machines and give customers of Zemen Bank to access their card at any convenient ATM machine.

Table 4.2:- E-Banking in Zemen Bank S.C

Item	Number
Number of ATM	65
Number of POS	0
Registered internet Banking users	8,880
Total Number of Customer	30,000
Transaction per day ATM	1.99 Million Birr
Transaction per day IB	400,000 Birr
Charge per transaction	0

Survey result, 2018

At the end of June 30, 2018 the bank has a total of 65 ATM with a total of 9,520 customers for ATM, 8,880 registered customers of internet banking and 9,125 for telephone banking, and per the statement of the e channel managers statement the bank is under process to introduce POS. The ATM service is not charging withdrawal fees for Zemen Bank customers if they use the bank's ATM machines.

4.2.1 Customer's Awareness

Q1: Customers are fully aware & have enough information about electronic banking services.

Table 4.3 Response of respondents on awareness of customers regarding electronic banking

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	4	4%
<i>Disagree</i>	70	72%
<i>Neutral</i>	5	5%
<i>Agree</i>	11	11%
<i>Strongly agree</i>	8	8%
<i>Total</i>	98	100%

Source: Survey Result

As can be seen in the above table 4.3, the majority of respondents (76%) do not have enough information about electronic banking services. The result further indicates that only 19% of the respondents are fully aware of electronic banking services; while majority of the respondents are only aware of the conventional and traditional banking service. It means that people are lacking important information that is necessary to use electronic banking services.

4.2.2 Usefulness of E-Banking

Q2: Customers are aware of the usefulness of electronic banking services.

Table 4.4 Response of respondents on usefulness of electronic banking

	<i>Number</i>	<i>Percentage</i>
<i>Strongly disagree</i>	2	2%
<i>Disagree</i>	5	5%
<i>Neutral</i>	1	1%
<i>Agree</i>	58	59%
<i>Strongly agree</i>	32	33%
Total	98	100%

Source: Survey Result

As shown on Table 4.4, the result for all statements of the field indicated that the respondents agreed with the idea that perceived usefulness of electronic banking is important in terms of using more banking services, time saving and cost minimization.

As can be seen in Table 4.4, 92% of the respondents agreed on the usefulness of electronic banking. This implies that using electronic banking enable users to perform banking activities within a short period of time.

Q3: Customers think that using electronic banking facility saves their time and money.

Table 4.5 Response of respondents on time and cost advantage of electronic banking.

	<i>Number</i>	<i>Percentage</i>
<i>Strongly disagree</i>	0	0%
<i>Disagree</i>	2	2%
<i>Neutral</i>	0	0%
<i>Agree</i>	41	42%
<i>Strongly agree</i>	55	56%
Total	98	100%

Source: Survey Result

In addition, the results of the survey presented in Table 4.5, it can be witnessed that 98% of the respondents agreed that using electronic banking services help users to save their time and minimize their cost. This implies that using electronic banking enable users to perform banking activities within a short period of time and lower cost.

According to Dawd (2009), E-Banking services like ATM, internet banking, mobile banking and others help banks save a lot of costs. In the long run a bank can save money by not paying for tellers or for managing branches. This way of cutting transaction cost results in higher profit

margin for the banks. Dawd (2009) also noted that, the combination of higher technology and higher skills have posted a higher turnover for banks as they have been able to provide better customer support and have managed their assets well. Second, customers can get banking service at lower costs compared with traditional banking service, because, it is cheaper to make transaction over Electronic fund transfer. Similarly, the study of, Devamohan (2002), noted that, online banking fees have reduced over the years and less expensive when compared with traditional system. This finding is consistent with the previous studies of Dawd (2009) in which majority of the respondents found time saving and cost minimization as important factors of the benefits of electronic banking.

4.3 Challenges of E-Banking practice

Although there are many associated benefits with the practice of E-Banking, there are many reasons which hinder implementation of the system. In case of Ethiopian banking industries, many private banks are using old banking system and don't have access to take advantage from electronic banking facilities. Wondwossen & Tsegai (2005) observed the following reasons which may be considered as hindrance factors for the use of electronic payment system in Ethiopia. These hindrance factors include, lack of appropriate infrastructure for E-Payment, lack of internet facilities with customer and learning how to interact with banks websites. Moreover, factors that can affect practice of E-Banking in the country regarding the factor that are affecting E-Banking service were analysed in the following sections.

4.3.1 Security and privacy

Q4: Customers are concerned about their private information & security policy.

Table 4.6: Response of respondents on concern about their private information

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	0	0%
<i>Disagree</i>	0	0%
<i>Neutral</i>	0	0%
<i>Agree</i>	41	42%
<i>Strongly agree</i>	57	58%
<i>Total</i>	98	100%

Source: Survey Result

The results of the survey presented in Table 4.6 show that all the respondents are highly concerned about their private information. They want to get their information kept secret so that other cannot misuse it. Their private information includes their address, phone numbers, account number and

more importantly their Personal Identification Number (PIN). So the respondents are very concerned about the security policy and want their information keep confidential.

Q5: There is a user privacy policy mentioned on the Banks website to strengthen trust of customers.

Table 4.7: Response of respondents on Privacy policy of the bank

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	61	63%
<i>Disagree</i>	35	35%
<i>Neutral</i>	2	2%
<i>Agree</i>	0	0
<i>Strongly agree</i>	0	0
Total	98	100%

Source: Survey Result

In addition, the result of the survey shown in Table 4.7 shows that all the respondents don't have information regarding user privacy policy which can strengthen the trust of the customer. This indicates that some important information's are missing on the banks website and people are concerned about this information.

4.3.2 User friendliness of the E-Banking service

Q6: E-Banking service is more accessible to users than visiting a bank branch.

One of the basic benefits related with the use of E-Banking system is the perceived ease of use. Devamohan (2002) suggests that electronic banking services reduce the workload over the banking staff and it is easy to have more satisfied customers. On the other hand Olga (2003) indicated that electronic banking provides convenience not only to banks but also to customers. The result obtained from the survey also confirms the finding of Olga (2003) and Devamohan (2002) and the result were shown as follows.

Table 4.8 Response of respondents on E-Banking service accessibility

	Number	percentage
<i>Strongly disagree</i>	2	2%
<i>Disagree</i>	11	11%
<i>Neutral</i>	5	5%
<i>Agree</i>	44	45%
<i>Strongly agree</i>	36	37%
Total	98	100%

Source: Survey Result

As shown in Table 4.8 above majority of the respondents 82% agreed that electronic banking service is more accessible to users than visiting a bank branch. In this regard, as per the results of the survey, electronic banking is more accessible and convenient than travelling more distances to reach to a

bank branch. By using electronic banking users can simply check their balance and transfer funds 24 hours a day and 7 days a week without the need to go to a bank branch. In line with this finding Dawd (2009) suggests that, one of the implications of E-Banking is that it should reduce the need to visit bank branches to get banking services.

Q7: Learning and using electronic banking is easy,

Table 4.9 Response of respondents on ease of learning and using electronic banking

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	4	4%
<i>Disagree</i>	25	26%
<i>Neutral</i>	3	3%
<i>Agree</i>	61	62%
<i>Strongly agree</i>	5	5%
<i>Total</i>	98	100%

Source: Survey Result

The results of the survey presented in Table 4.9 shows that majority of the respondents (67%) agreed that learning and using electronic banking is easy to use. Only 30% of the respondents find it difficult to learn and use E-Banking services. 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 especially for the youngsters and those who have well educational background. From this survey it can be understood that customer thinks that it is a good way to use payment cards for making transactions through electronic devices.

Q8: The services are adapted to disable and elder people who are lacking computer experience.

Table 4.10: Response of respondents on adaptability of E-Banking services to disable and elder people,

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	68	69%
<i>Disagree</i>	25	26%
<i>Neutral</i>	5	5%
<i>Agree</i>	0	0%
<i>Strongly agree</i>	0	0%
<i>Total</i>	98	100%

Source: Survey Result

However, the result that is shown in Table 4.10 reveals that the majority of the respondents (95%) replied that the electronic banking services are not adapted to disable and elder people who either need support or who are lacking computer experience.

4.3.3 Trust

Q9: Customers have high degree of trust on the bank and are satisfied with security of electronic banking service provided by the Bank.

Table 4.11 Response of respondents on trust of customers on the bank

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	16	16%
<i>Disagree</i>	52	53%
<i>Neutral</i>	0	0%
<i>Agree</i>	17	18%
<i>Strongly agree</i>	13	13%
Total	98	100%

Source: Survey Result

As can be seen in Table 4.11 above, the majority of respondents (69%) do not have full confidence and trust on the electronic banking services provided by the bank. The result further indicates that only 31% of the respondents have trust and full confidence on electronic banking services; while majority of the respondents have high fear of risks associated with using E-Banking services. It means that people have doubt and great suspicion to use E-Banking services especially because of fear of hackers from accessing their account, making fraudulent transactions and loss of their money. The result obtained from the survey also confirms the finding of (Tadesse and Kidan, 2005).

4.3.4 Information about E-Banking

Q10: The Bank provides help (demo) on its website on how to use electronic banking for a new user.

Table 4.12 Response of respondents on help (demo) provided on banks website

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	23	24%
<i>Disagree</i>	60	61%
<i>Neutral</i>	0	0%
<i>Agree</i>	13	13%
<i>Strongly agree</i>	2	2%
Total	98	100%

Source: Survey Result

As can be seen from the results of the survey presented in Table 4.12, majority of the sampled respondents (85.1%) replied that a demo tour is not provided on the website. Having such a negative response, a new user cannot get help on the website if he or she wants to use electronic banking. Due to this, a novice user got difficulty to use electronic banking services for lacking proper help from the banks.

Electronic banking Demo provides the instruction to use the site and other electronic banking services. However, this survey shows that most of the respondents don't know about the guidelines provided on the website of the sampled banks. For this reason, people find it difficult to get the relevant information on the website regarding electronic banking facility.

Q11: The Bank provides training to enhance awareness of customers to use electronic banking.

Table 4.13 Response of respondents on training to enhance awareness of customers

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	23	24%
<i>Disagree</i>	40	41%
<i>Neutral</i>	0	0%
<i>Agree</i>	23	23%
<i>Strongly agree</i>	12	12%
Total	98	100%

Source: Survey Result

From the survey result presented in Table 4.13, it can be seen that 65% of the respondents replied that the banks are not providing any training to enhance the awareness level of customers. In addition, the result of the survey indicates that only 35 of the respondents agreed that the bank provides training. 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

4.3.5 Government policies

Q12: Customers are satisfied by government policies implemented for electronic banking like money laundering & prohibiting cardholders from effecting payments for international transactions.

Table 4.14 Response of respondents on government policies

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	9	9%
<i>Disagree</i>	17	17%
<i>Neutral</i>	44	45%
<i>Agree</i>	19	20%
<i>Strongly agree</i>	9	9%
Total	98	100%

Source: Survey Result

Government policies play an important role in developing regulatory frameworks for the successful implementation of electronic banking services. As it is shown in Table 4.14, majority

of the respondents (45%) are neutral about policies issued by the government. This implies that people do not have the required information or they may not be concerned about government regulations regarding electronic banking. However, the result also indicates that only 29% of the respondents agree with government policies related to electronic banking like money laundering. This indicates that they are not satisfied by the government policies issued for the protection of consumers regarding electronic payment.

4.3.6 Infrastructure

Q13: Customers encounter problems related with internet while using electronic banking services.

Table 4.15 Response of respondents on problems related with internet while using electronic banking

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	10	10%
<i>Disagree</i>	15	15%
<i>Neutral</i>	0	0%
<i>Agree</i>	51	52%
<i>Strongly agree</i>	22	23%
<i>Total</i>	98	100%

Source: Survey Result

As can be seen in Table 4.15, majority of the respondents (75%) replied that they have encountered problems while using electronic banking services. In this regard, they agreed that the internet connection which they used for electronic banking was very poor to perform electronic transactions. Moreover, respondents face problem while they use ATM machines sometimes the machines went out of service and other times money is deducted from their account but the machines are not dispensing cash and it takes significant time to reverse the transaction (1 to 45 days).

Q14: Customers are satisfied with the speed of internet & infrastructure provided by Ethio Telecom.

Table 4.16 Response of respondents on the speed of internet & infrastructure provided by Ethio Telecom.

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	82	84%
<i>Disagree</i>	8	8%
<i>Neutral</i>	0	0%
<i>Agree</i>	5	5%
<i>Strongly agree</i>	3	3%
<i>Total</i>	98	100%

Source: Survey Result

The result of the survey presented in Table 4.16 reveals that 92% of the respondents are unhappy with the slow internet connection provided by Ethio-Telecom. From this, it can be understood that using electronic banking is getting difficult due to low speed of connection and low internet access.

Q15: The Bank provides an alternative way to use electronic banking services when there is slow internet connection.

Table 4.17 Response of respondents on alternative way to use electronic banking services

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	35	36%
<i>Disagree</i>	9	9%
<i>Neutral</i>	21	21%
<i>Agree</i>	17	17%
<i>Strongly agree</i>	16	16%
<i>Total</i>	98	100%

Source: Survey Result

In addition, the sampled respondents were asked whether the banks provide alternative ways of using electronic banking services when there is slow internet connection. In this regard, as can be shown in Table 4.17, majority of the respondents (45%) replied that they are not getting other options of using E-Banking services when they encounter with a slow internet connection. For this reason, they are unable to transact and use the needed service in an efficient way. On the other hand in the survey, it is further indicated that more than one fifth (21%) of the respondents don't have clear information regarding the type of alternative ways of internet connection used for using electronic banking services. Moreover 33% of the respondents agreed that the bank provides alternative ways.

Q16: Banks have experienced and skilled IT professionals to administer latest technologies.

Table 4.18 Response of respondents on skill of IT professionals of the bank

	<i>Number</i>	<i>percentage</i>
<i>Strongly disagree</i>	5	5%
<i>Disagree</i>	38	39%
<i>Neutral</i>	36	37%
<i>Agree</i>	11	11%
<i>Strongly agree</i>	9	9%
<i>Total</i>	98	100%

Source: Survey Result

According to Kumaga (2010), technology know-how is very important in E-Banking industry; otherwise, the technology by its own is useless without having the required professional skill.

Based on this, the respondents were asked regarding the experience and skill of IT professionals of the bank to administer latest banking technologies. In this regard, the majority of the respondents (44%) replied that they have doubt in the skill and experience of IT professionals who are working in the bank. This implies that, customers don't have full confidence on IT professionals in resolving problems encountered while using electronic banking services.

Problems of E-Banking in the introduction stage

Basically banks got challenges in relation with E-Banking at introduction stage and after introduction on the practice of the service. During introduction different literatures states that there are different challenges such as ICT infrastructure, lack of skilled man power, lack of suitable legal environment and cost of the software as well as the device. Same was proven from the interview script with the IT manager of Zemen Bank.(survey result, 2018)

Despite the recent improvements made by Ethiopian government on the national infrastructure, the overall ICT infrastructure in Ethiopia remains inadequate. Card-based payment systems in Ethiopia have been growing fast in recent years. Eight commercial banks in the country have introduced wider use of debit or ATM cards. Commercial banks in Ethiopia also cited plans to use new technologies for remittance transfers, including mobile-phone transfers and remittance-linked financial products such as prepaid cards. However, significant challenges to these plans include, lack of adequate financial and telecommunications infrastructure for the new technologies (Alemayehu & Jacqueline 2011) Ten years back Zemen Bank joined the market with the intention of providing banking service through multichannel services and made huge investment on IT instead of branch networking but due to the above mentioned factors the bank was forced to revise its strategy and started to widen its branch network too the interviewee also admitted that there are infrastructural hurdles such as network and accessibility problems, ICT and other which impact the expansion of technology innovative banking products like ATM, Mobile and Internet Banking (Survey Result, 2018). A skilled worker is any worker who has some special skill, knowledge, or (usually acquired) ability in their work. Or, a skilled worker may have learned their skills on the job. To perform any activity in a company and make the work done the company need a skilled worker. In Ethiopia, there is a shortage of skilled man power in any field and specifically in ICT field. This study also supports the above idea, Zemen Bank was forced to bring foreigners to install its network and after the installation the bank made extra investment to train and monitor its staffs until they reach the required standard. Which

implies one of the basic problems of E-Banking in the introduction stage is Shortage of skilled man power (Servey Result, 2018).

Lack of legal framework may thus hinder the introduction of cost effective modern electronic payment instrument such as ATMs, credit and debit cards, mobile/telephone/internet banking. The study of Gardachew (2010) revealed that lack of legal frame work is one of the challenges for E-Banking system in Ethiopia. In contrary the study of Wondwossen and Tsegai (2005) revealed that an adequate legal structure and security framework could encourage the use of E-payments in Ethiopia. legal frame work is the basic challenges of E-Banking practice. Since there is no legal frame works on the introduction of E-Banking at central bank, So lack of legal frame work for the implementation of E-Banking system is one of the basic barriers for Ethiopian banking industry. The finding of this study were also consistent with the study of Tan and Ouyang (2002), they found that lack of legislation is an initial barrier that influence E-Banking practice in china. The above results were also supported by an interview script received from respondents, which indicates that there are no directives and acts for E-Banking in general and more specifically for card payment, internet banking, international card, local card and the like except mobile banking, which delimited banks to introduce E-Banking service (Survey result, 2018).

4.4 Driving Forces for the adoption of E-Banking

Table 4.19: Response of respondents on driving forces for the adoption of E-Banking

Driving forces	Number of Respondents	Mean	Mod
Desire to improve organizational performance and productivity;	98	4.51	5
Desire to improve the relationship with customers	98	4.34	4
Desire to cover wide geographical area	98	4.21	4
Desire to build organizational reputation	98	4.15	4
Desire to reduce transaction cost	98	3.94	4
Desire to improve customer service	98	4.29	4
Existence of high competition in the banking industry	98	4.31	4
Desire to satisfy rapid change of customer needs and preferences	98	3.85	4
Legal frame works that enforce banking industries to adopt technological innovation	98	3.42	3

Source: Survey Result

There are factors influencing adoption of E-Banking technology products in Zemen bank. As depicted in the above Table 4.19 most respondents agreed that desire to improve bank performance and desire to improve relationship with customer were the main influencing factors for adoption and development of E-Banking technology, in which mean score are founded 4.51 and 4.34, respectively majority of respondents 98% agreed, the survey also indicted that competition from other banks has a strong influence for adoption and development E-Banking technology as a mean value is 4.31. Besides, an interview script received from E-Banking Manger of the Bank confirmed that E-Banking services would attract customers from other banks which have not commenced E-Banking service. Hence, adoption and development of E-Banking technology is used as a defensive mechanism against competitive activities. This result is in line with the finding of Isaac (2005).

The result further revealed that most respondents asserted that desire to improve customer service, desire to cover wide geographical area and desire to build organizational reputation are found as the main drivers for adoption and development of E-Banking technology in Ethiopia. This is evidenced by the data collected from the respondents with mean score of 4.29, 4.21, and 4.15, respectively.

Last but not least, other driving factors that initiate Ethiopian banks to adopt and develop E-Banking technology are desire to reduce transaction cost, to satisfy rapid change of customer needs and preferences and legal frame works that enforce banking industries to adopt technological innovation. This agreement is based on the responses of the respondents with mean score 3.94, 3.85 and 3.64, respectively. In addition, an interview conducted with Zemen Bank E-Banking infrastructure division confirmed that following NBE directive to adopt core banking system, the system leads the bank to introduce payment card.

4.1.5 Opportunities for Adoption and Development of E-Banking Technology

Table 4.20: opportunities for adoption of E Banking

Description of opportunities	Number of respondents	Mean	Mod
Late adopter opportunities;	98	3.68	4
Commitment of the government to strengthen the banking industry;	98	3.56	4
The existence of high demand	98	3.97	4
Improvement in the banking habit of the society	98	3.82	4
Commitment of the government to facilitate the expansion of ICT infrastructure	98	3.62	4

Source: Survey Result

Based on the above five questions shown in the table 4.20 above to confirm the existence of the opportunities for adoption and development of E-Banking technology in Zemen Bank, Accordingly, the sampled respondents agreed with the idea that the existence of high customers demand, improvement in the banking habit of the society, late adopter of E-Banking in the industry, commitment of the government to facilitate the expansion of ICT infrastructure and to strengthen the banking industry are existing opportunities fostering the adoption and development of E-Banking technology in Zemen Bank. This is evidenced by the data collected from the respondents. (Survey result, 2018).

CHAPTER FIVE

5 Summary of Findings, Conclusion and Recommendations

This chapter present summary of the findings and conclusion in section 5.1 and 5.2 respectively. Afterwards, the possible important recommendation for further research methods will be presented in section 5.3.

5.1 Summary of Findings

The objective of the study was to identify practice, challenges and opportunities for adoption and development of E-Banking technology in Zemen Bank. Accordingly, this part of the research summarizes the major findings of the study.

- The study revealed that people who want to get E-Banking service lacks the required information that is necessary to use electronic banking services. In this regard, the bank officials who are expected to help customers focus on their routine jobs and don't give much time to customers. Moreover, the bank's websites does not provide essential information to customers regarding electronic banking. In general there is information gap between the service users and service providers of electronic banking.
- The study revealed that customer's of Zemen Bank are fully aware of the usefulness of E-Banking service and also believe that using E-Banking services saves their time and minimizes their cost for this reason customers of the bank are willing to use E-Banking service of Zemen Bank.
- Security and privacy are the most important issues in electronic banking business. The findings of the study also reveal that customers are very much sensitive and highly concerned about the security of their account and privacy of their private information. However, they don't have enough knowledge about security features and user privacy policies. For this reason, they may not have full confidence to use electronic banking services.
- The study reveals that customers believe that E-Banking service is more accessible than visiting the branches of the bank. Moreover they also believe that learning and using E-Banking is easy. However, the survey also reveals that E-Banking service of the bank is

not adapted for disable and elderly peoples who either need support or who are lacking computer skills.

- Findings reveal that Zemen banks' websites are not providing demos about the electronic banking services provided by the bank; rather the information provided on the website is only to promote the conventional banking products like deposits and loans which are already available in the market. On top of this, customers (especially new users) are facing lots of difficulties due to lack of trainings on how to use the electronic banking services.
- The finding of the study reveals that customers do not trust the technology that is being used for conducting electronic banking business. For this reason, they do not have full confidence and trust on the electronic banking services provided by the bank mainly for security related issues.
- Government polices plays a very important role for successful implementation of electronic banking and to use latest information and communication technologies. However, the study revealed that there is no proper policy and legal framework issued for deployment of electronic banking services from the government of Ethiopia.
- The study also revealed that the infrastructure required for successful implementation of electronic banking is 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 is a very slow internet connection and low distribution of internet network in the country.
- Apart from possessing the latest technology, having the technology know-how is very important in E-Banking industry. In this regard, the study revealed that there is shortage of experienced and well trained IT professionals who have the capacity and the skill to resolve problems that may be encountered while using electronic banking services.
- On the other hand, the study reveals that the benefits of technological innovation are well known to the bank and act as a driving force for the adoption of the system. In general desire to improve organizational performance, desire to improve relationship with customers, desire to cover wide geographic area, desire to reduce transactional cost, high competition in the industry and desire to satisfy rapidly changing customer needs and maximize customer service are the major driving forces identified by the survey.

- Regarding opportunities of E-Banking adoption the result of the survey indicated that the existence of high customers demand, improvement in the banking habit of the society, late adopter of E-Banking in the industry, commitment of the government to facilitate the expansion of ICT infrastructure and to strengthen the banking industry are existing opportunities fostering the adoption and development of E-Banking technology in Zemen Bank.

5.2 conclusions

Based on the findings of the study the following conclusions were made.

In accordance with the survey result at the end of June 30, 2018 the bank has a total of 65 ATM with 9,520 registered customers for ATM, 8,880 registered customers of internet banking and 9,125 for telephone banking, the bank had upgraded internet banking which enables customers of the bank to transfer funds to other banks in the country.

From the study it can be concluded that though customers of Zemen bank are fully aware of the benefit of E-Banking service and also believe that using E-Banking service saves their time and cost however customers of the bank do not have full information regarding the E-Banking service provided by the bank.

The study also proves that the bank faced different challenges to practice E-Banking effectively due to high rates of illiteracy, low level of internet penetration and poorly developed ICT infrastructure, lack of suitable legal and regulatory framework for E-Banking, frequent power interruption, fear of risk and unavailability of competent and skilled employee.

On the other hand, the study approves that desire to improve organizational performance, desire to improve relationship with customers, desire to cover wide geographic area, desire to reduce transactional cost, high competition in the industry and desire to satisfy rapidly changing customer needs and maximize customer service were proven as the major driving forces for E-Banking adoption in Zemen Bank.

Moreover the study proves that high customers demand, improvement in the banking habit of the society, late adopter of E-Banking in the industry, commitment of the government to facilitate the expansion of ICT infrastructure and to strengthen the banking industry are existing opportunities for the bank.

5.3 Recommendations

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

Zemen Bank is advised to create deep awareness specifically to its customer and to the community in general concerning the E-Banking products it offer and the benefits associated with using E-Banking services through advertising 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. This way, customers' interest would be aroused;

In order to exploit the benefits that can be achieved from the provision of E-Banking services, Zemen Bank needs to establish a strong link with customers by providing the required information that will enable them to use electronic banking services in the future. In this regard, it is recommendable to make website information clear and precise so that customers can easily understand about the service. Furthermore, since it is the duty of the concerned staff to provide all the information to its customers, they should provide all the materials to customers that demonstrate how to use electronic banking.

For the successful implementation as well as practice of E-Banking system, ICT infrastructure is a major prerequisite and hence the government need to support the banking sector in general by investing on ICT infrastructure development.

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Appendix-A

St. Mary's University

School of Graduate Studies

Questionnaire to be filled by Zemen Bank Employees

Dear Sir/Madam

I am Wegayehu Abiye, MBA. Student at St. Marry University. I am undertaking a research on the topic "Practice Challenges and Opportunities of Electronic Banking in Ethiopian Banking Industry" for the partial fulfilment of the requirements of the degree of Master of Business Administration us. The aim of this questionnaire is to identify the Practice, challenges and opportunities of adopting E-Banking in Ethiopian banking Industry.

This questionnaire is prepared to gather pertinent information. I sincerely assure you that the information you provide will be used only for academic purposes. Your involvement is regarded as a great input to the quality of the research results. Your honest and thoughtful response is invaluable.

Please put the tick mark (√) on the appropriate space as per your choice for each closed-ended question and the appropriate reason for open-ended questions.

Thank you for your participation

Best regards,

Wegayehu Abiye,

MBA student at St. Mary's University School of Graduate Studies

St. Mary's University
School of Graduate Studies

Questionnaire to be filled by Zemen Bank Employees

Background Information

Name of the Branch you are working in: _____

Age: 18-25 [] 26-35 [] 36-45 [] 46-55 [] 56-65 [] 66 or above []

Work Experience: 0-2 Yrs [] 2-5 Yrs [] 5-8 Yrs [] 8-15 Yrs [] 15-20 Yrs [] Above 20 Yrs []

Education Level: 12 Complete [] Diploma [] BA/BSc [] MA/MSc [] PhD []

Which types of Electronic Banking Products/Services are provided by your Bank *(It is possible to tick more than once?)*

- | | |
|---|---|
| <input type="checkbox"/> ATM banking | <input type="checkbox"/> Internet Banking |
| <input type="checkbox"/> Debit Card | <input type="checkbox"/> Agent Banking |
| <input type="checkbox"/> Credit Card | <input type="checkbox"/> POS Banking |
| <input type="checkbox"/> Electronic Fund Transfer | <input type="checkbox"/> SMS Banking |
| <input type="checkbox"/> Mobile Banking | |

Part one:- questions related to Practice of E-Banking
(Please indicate the extent to which you agree/ disagree with the following statements)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Customers are fully aware & have enough information about electronic banking services.					
Customers are aware of the usefulness of electronic banking services					
Customers think that using electronic banking facility saves their time and money.					

Any Suggestion that you would like to give? _____

Part Two:- questions related to challenges of E-Banking

(Please indicate the extent to which you agree/ disagree with the following statements)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Customers are concerned about their private information & security policy.					
There is a user privacy policy mentioned on the website to strengthen trust of customers.					
E-banking service is not accessible to users than visiting a bank branch.					
Learning and using electronic banking is easy to use					
The services are adapted to disable or elder people who are lacking computer experience.					
Even if customers have high degree of trust on the bank they are not satisfied with security of electronic banking service provided by the Bank.					
The Bank provides help (demo) on its website to use electronic banking for a new user.					
The Bank provides training to enhance awareness of customers to use electronic banking.					
Customers are satisfied by government policies implemented for electronic banking like money laundering & prohibiting cardholders from effecting payments for international transactions.					
Customers encounter problems related with internet while using electronic banking services.					
Customers are satisfied with the speed of internet & infrastructure provided by Ethio-Telecom.					
The Bank provides an alternative way to use electronic banking services when there is slow internet connection.					
Customer have the access to personal computer and internet					
Banks have experienced and skilled IT professionals to administer latest technologies.					

Any suggestion that you would like to give. _____

Part three:- questions related to driving forces for the adoption of E banking
(Please indicate the extent to which you agree/ disagree with the following statements)

Do you think that the following are among the driving forces for the adoption of E-banking services in Ethiopia Banking Industry?	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Desire to improve organizational performance and productivity;					
Desire to improve the relationship with customers					
Desire to cover wide geographical area					
Desire to build organizational reputation					
Desire to reduce transaction cost					
Desire to improve customer service					
Existence of high competition in the banking industry					
Desire to satisfy rapid change of customer needs and preferences					
Legal frame works that enforce banking industries to adopt technological innovation					

Any Suggestion that you would like to give? _____

Part four:- question regarding the opportunities of adoptinf E banking
(Please indicate the extent to which you agree/ disagree with the following statements)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Late adopter opportunities;					
Commitment of the government to strengthen the banking industry;					
The existence of high demand					
Improvement in the banking habit of the society					
Commitment of the government to facilitate the expansion of ICT infrastructure					

Any Suggestion that you would like to give? _____

Appendix-B

St. Mary's University

School of Graduate Studies

Interview questions designed for IT managers of Zemen Bank.

1. What type of Electronic banking service do you provide?. ATM, Internet banking, mobile banking or others, please specify?
2. When do you start e banking service?
3. With what software and device provider company does your bank purchase its software/device?
4. How many customers do you have who use E-Banking? Specify by type
5. How many ATM devise, POS and agent does your bank have?
6. What is the basic benefit of E-Banking?
7. In your opinion what are the key challenges in your institution to practice E-Banking
8. Do you think that government policy have impact on the practice of E- banking system?
(Please Specify/explain)
9. What sort of support would you expect from the government in relation to the E-Banking improvement in Ethiopia?
10. Do you have any comment with regard to practice, challenges and opportunities of E-Banking in your Bank?
