



ST.MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

ASSESSMENT OF FACTORS AFFECTING USAGE OF E-BANKING
IN WEGAGEN BANK SOUTH ADDIS ABABA DISTRICT

BY MILLION GEBRU

JUNE, 2019
ADDIS ABABA

**ASSESSMENT OF FACTORS AFFECTING USAGE OF E-BANKING
IN WEGAGEN BANK SOUTH ADDIS ABABA DISTRICT**

**BY
MILLION GEBRU**

**A THESIS SUBMITTED TO ST.MARY'S UNIVERSITY, SCHOOL OF
GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS
ADMINISTRATION**

**MAY, 2019
ADDIS ABABA**

ST.MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

ASSESSMENT OF FACTORS AFFECTING USAGE OF E-BANKING
IN WEGAGEN BANK SOUTH ADDIS ABABA DISTRICT

BY

MILLION GEBRU

APPROVED BY BOARD OF EXAMINERS

Dean of Graduate studies

Signature

Date

Advisor

Signature

Date

External Examiner

Signature

Date

Internal Examiner

Signature

date

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Zemenu Aynadid (Ass. 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

Contents	Table of content	pages
Acknowledgements.....		iii
List of abbreviation		iv
List of table		v
List of Figures		v
CHAPTER ONE		1
1. INTRODACTION		1
1.1. Background of the study		1
1.2. Statement of the problem		4
1.3. Research Questions.....		5
1.4 Research Objective		5
1.4.1 General objective		5
1.4.2 Specific objective.....		6
1.5. Research Hypotheses		6
1.6. Significance of the study.....		6
1.7. Scope and Limitation of the study		7
1.8. Organization of the study		7
CHAPTER TWO		8
2. REVIEW OF RELATED LITERATURE		8
2.1. An Overview of E-banking.....		8
2.1.2 Evolution of E-banking.....		10
2.1.2.1 E-Banking System in Ethiopian Banking Industry		11
2.1.2.2 E-banking in wegagen bank.....		13
2.1.3. Forms of E-banking		14
2.2 Theoretical literature.....		16
2.2.1. Technology Organization- Environment (TOE)		16
2.3.2Technology Acceptance Model (TAM).....		17
2.3.3Perceived Risk (PR).....		18
2.3.4. Theory of Planned Behavior (TPB)		19
2.3.4Innovation Diffusion Theory (IDT)		20
2.3. Review of Empirical Literature.....		21

2.2.1 Benefits of E-banking	26
2.2.2 Benefit of E-banking for Customers	28
2.4. Conceptual framework.....	31
CHAPTER THREE	32
3. RESEARCH METHODOLOGY.....	32
3.1. Description of the study area	32
3.2. Research Design.....	32
3.3 Research Approach	32
3.4 Source of data	33
3.4.1 Primary data.....	33
3.6. Method of Data Analysis.....	35
3.7. Validity and reliability of research instruments.....	35
3.7.1 Validity of research instruments.....	35
3.7.2. Reliability.....	35
CHAPTER FOUR.....	36
4. RESULTS AND DISCUSSION	36
4.1Introduction.....	36
4.2 Questionnaire return rate.....	36
4.3 Demographic information of respondents.....	36
Table 4.1: Demographic characteristics of respondents	37
CHAPTER FIVE	41
5. SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATION	41
5.1 Summary of findings.....	41
5.2. Conclusion	42
5.3. Recommendation	44
Reference	46
APPENDEX.....	52
Questioner	52

Acknowledgements

I am most grateful to Almighty God who through His infinite mercy and love guided me throughout the duration of the study. My most sincere and heartfelt thanks go to Assistant Professor Zemenu Aynadis, my thesis advisor, for his unreserved and timely support in checking, commenting and giving constructive advice all along my activities. Last but not least, I would like to express my deep gratitude to my wife Nahili and my daughter Yohana.

List of abbreviation

<i>ATM</i>	<i>Automated teller machine</i>
<i>CBE</i>	<i>Commercial bank of Ethiopia</i>
<i>E-banking</i>	<i>Electronic banking</i>
<i>E-commerce</i>	<i>Electronic commerce</i>
<i>ECX</i>	<i>Ethiopian commodity exchange</i>
<i>EFT</i>	<i>Electronic fund transfer</i>
<i>E-payment</i>	<i>Electronic payment</i>
<i>ICT</i>	<i>Information communication technology</i>
<i>IDT</i>	<i>Innovation Diffusion Theory</i>
<i>IT</i>	<i>Information technology</i>
<i>NBE</i>	<i>National bank of Ethiopia</i>
<i>PDA</i>	<i>Personal Digital Assistant</i>
<i>PEOU</i>	<i>perceived ease of use</i>
<i>PR</i>	<i>perceived Risk</i>
<i>PU</i>	<i>perceived usefulness</i>
<i>SPSS</i>	<i>Statistical package for social science</i>
<i>SAAD</i>	<i>south Addis Ababa district</i>
<i>TA</i>	<i>Technology associates</i>
<i>TAM</i>	<i>Technology acceptance model</i>
<i>TOE</i>	<i>Technology organization environment</i>
<i>TPB</i>	<i>Theory of Planned Behavior</i>
<i>TRA</i>	<i>Theory of Reason Action</i>

List of table

Table 4.1: Respondents' Demographic profile.....34

Table4.2: Correlation Adoption with Relative Advantage.....35

Table 4.3: correlation Risk with Adoption36

Table 4.4: Correlation complexity with adoption.....37

Table4.5: Correlation Adoption with Trialability 38

Table4.6: Correlation Adoption with Compatibility 39

Table4.6: Regression for R2..... 40

Table4.6: Regression coefficient table.....40

List of Figures

Fig2.1: conceptual frame work..... 29

Abstract

E-Banking technology is still at infant stage in Ethiopia compared to the rest of the world. In Ethiopia Cash is still the most dominant medium of exchange. This study is aimed to assess factor affecting usage of e-banking. The study was conducted based on the data gathered from four branch found in wegagen bank south Addis Ababa district; (Goffa, meskel, nifas silk, and Akaki branch).

Mixed research approach was used to answer the research questions that emerge through the review of existing literature and the experiences of the researcher in respect of the E-banking system in wegagen bank south Addis Ababa district. The survey was conducted to collect the data and 368 complete responses were gathered from customers who have an account in wegagen bank south Addis Ababa district.

Explanatory research design was applied and Correlation and regression analysis was done to provide strength to the research study which showed that the relation between variables and how much the dependent variable is explained by the independent variable. Spearman's rank correlation was used to examine relationship of five hypotheses with actual e- banking usage.

Result of the study indicated that relative advantage, compatibility with values, complexity, trialability and risk found to influence the adoption of e-banking and 83% of the variation in adoption of e-banking explained by independent variables namely relative advantage, compatibility, complexity, trialability and risk . The adjusted R^2 value, which accounts for the number of variables, shows that the independent variable account for 83% of the variation in adoption of E- banking.

Conclusion of the research study implied that banks have to majorly influence the E- banking adoption through 'pull strategies

Keywords: E- Banking, Wegagen bank, south Addis Ababa District, Adoption

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the study

Financial services industry has recently been open to historic transformation, it can call e-developments are emerging and advancing rapidly in all areas of financial intermediation and financial markets: e-finance, e-money, electronic banking (e-banking), e-brokering, e-insurance, e-exchanges, and even e-supervision. The new information technology (IT) is turning into the most important factor in the future development of banking, influencing banks' marketing and business strategies. In recent years, the adoption of e-banking began to occur quite extensively as a channel of distribution for financial services due to rapid advancement in IT and intensive competitive banking markets.

The driving forces behind the rapid transformation of banks are influential changes in the economic environment: innovations in information technology, innovations in financial products, and the dynamic nature of customers demand, liberalization and consolidation of financial markets, deregulation of financial inter-mediation etc. These and other factors make it complicated to design a bank's strategy, which process is threatened by unforeseen developments and changes in the economic environment and therefore, strategies Must be flexible to adjust to these changes. The financial services market is continuing to change rapidly, which brings into question whether traditional banks, as they are now structured, will actually continue to exist by the end of the decade or even survive through the next years (Olga lustsik, 2003). The evolution of e-banking started from the use of Automatic Teller Machines (ATMs) and Finland is the first country in the world to have taken a lead in e-banking Mishra and Kiranmai (2009) in order to provide efficient and effective service to their customers.

Electronic banking has been widely used in developed countries and is rapidly expanding in developing countries. However, the slow diffusion of e-commerce to African countries has been attributed to a number of issues some of which may be unique to the African Continent (Darley, 2001)

E-banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. E-banking includes the systems that enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet ATM , Debit card ,credit card etc. The computer applications are paramount concern to the banks in today's business environment and internet has become the major platform for all financial, banking and commercial transactions in the present scenario Magembe and Shemi (2002). It is an invaluable and powerful tool driving development, supporting growth, promoting innovation and enhancing competitiveness (Kamel, 2005) and Nath, Shrick and Parzinger (2001).

Banks and other businesses alike are turning to Information Technology (IT) to improve business efficiency by delivering the service with minimum cost, service quality and attract new customers Nath et al, (2001). Technological innovations have been identified to contribute to the distribution channels of banks. The evolution of banking technology has been driven by changes in distribution channels as evidenced by automated teller machine (ATM),Debit card ,credit card ,visa card, Phone- banking, Tele-banking, PC-banking and most recently internet banking. The paperless banking has become inevitable (Goi, 2005).

E-Banking, a combination of two words, Electronic technology and banking, is a process by which a customer performs banking transactions electronically without visiting a banking institution. It involves an extensive use of Information technology that eliminates the need for direct recourse to the bank by the customer as an umbrella term; it encompasses a number of products and services under its ambit which include ATM, debit/credit cards, phone/mobile banking and PC/Internet banking etc. Recently, electronic banking has become the way for the development of banking system, and the role of electronic banking is

increasing in many countries. It offers opportunities to create services processes that demand few internal resources, and therefore, lower cost. As well as it provides wider availability and possibility to reach more customers. From the customers' point of view, electronic banking allows customers easier access to financial services and time saving in managing their finance Almazari and Siam (2008), (Ayrga, 2011), Tan and Teo (2000).

A strong banking industry is important in every country and can have a significant effect in supporting economic development through efficient financial services. In Ethiopia, the role of the banking industry needs to change to keep up with the globalization movement, both at the procedural level and at the informational level. This change will include moving from traditional distribution channel banking to electronic distribution channel banking. E-Banking transactions have opened up new window of opportunity to the existing banks and financial institutions. It permits business process re-engineering, serving borderless market, to achieve zero latency leading to improvements in customer service levels and better risk management because of real-time settlement. Since its evolution in 90 th decades, it is having unprecedented growth. The growth rate is higher in Developed Countries and comparatively lower in least developed countries (Chang, 2003) & (Gallup, 2008)

Venkatesh, Morris, and Davis (2003) noted that the successful implementation of information systems is dependent on the extent to which such a system is used and eventually adapted by the potential users. Information system implementation is not likely to be considered successful if users are unmotivated to use that type of technology, and thus it will not bring full benefits to the organization. In order to motivate customers to use electronic banking, banks must make key improvements that address the customers' concerns. Therefore, The Reason to assess the key factors that influence the adoption of electronic banking among the banking customers is important issue of research and it will be the undertaking of this study.

1.2. Statement of the problem

Recently the bank industry in Ethiopia characterized by full of high competition among banks existed in the industry; as a result banks in Ethiopia are modifying their strategies to reach customers more easily and cheaply. Therefore, banks are developing the technologies that will help them deliver banking products and services by the most cost-effective channels for to be competent in the market and one of such channel is adoption of e-banking or internet banking. E-banking is a way to keep existing customers and attract new ones to the bank. The transaction costs of providing these services are lower than the traditional approach. The rapidly growing information and communication technology is knocking the front door of every organization in the world Booz and Hamilton (1997).

Although electronic banking introduces many benefits for banks and customers; customers still fear from the risk of electronic banking services. Some customers feel that electronic banking services could make them lose their money. Hence, there are still a large group of customers who refuse to adopt such service. And cash is still the most dominant medium of exchange; this has consumed lot of time as well as the cost to both customer as well as bank.

As different studies agreed on the success of internet banking is determined not only by banks or government support, but also by customers' acceptance of it (Hosein, 2009). Factors affecting customers' to adopt e-banking service channels have been at the forefront of several research works in the developed world. Nevertheless, there is very much limited published works that investigate the factors affect the adoption of e-banking in the context of developing countries like Ethiopia.

To date there have been very few researchers who conducted researches on related issues, but they concentrated on adoption of e-banking and its challenge and opportunities in Ethiopian banking industry i.e. (Ayana, 2010) on adoption of E-banking in Ethiopia; Barriers and Drivers; (Gardachew,2010) on electronic banking in Ethiopia: practices, opportunities and challenges, (Million,2013) on impact of electronic banking on customer satisfaction,

challenges in e-banking service and its impact unprofitability of public sector bank, Uvaneswaran, Eldana, Chera and Seid (2017).

This implies that prior research works did not give an emphasis on factor affecting adaptation of e-banking from the view point of customer and In the study area, there has not yet been detail research works made available to e-banking service from the customer perspective in context of wegagen bank south Addis Ababa district. Moreover, e-banking is a new technology in Ethiopia which needs a lot of effort and resources to be easily adopted by customers. Hence, in order to help banks improve e-banking adoption by their customers, it is necessary to assess factors that affect customers' to adopt e-banking service channels. Therefore, the researcher was motivated to fill those aforementioned gaps (focused area gap and contextual gap) and tried to conduct a research by assessing factor affecting usage of e-banking services in Wegagen bank south Addis Ababa.

1.3. Research Questions

1. What is the effect of Relative advantage on customer usage of E-banking?
2. What is the impact of Trialability on customer usage of E-banking?
3. What is the effect of Compatibility on customer usage of E-banking?
4. What is the effect of Complexity on customer usage of E-banking?
5. What is the effect of perceived Risk on customer usage of E-banking?

1.4 Research Objective

1.4.1 General objective

The main objective of this study is to assess and analyze factors affecting E-banking usage among the customers of wegagen bank south Addis Ababa district.

1.4.2 Specific objective

1. To know the effect of Relative advantage on customer usage of e-banking.
2. To identify the impact of Trialablity on customer usage of e-banking.
3. To know the effect Compatibility on customers usage of e-banking.
4. To know the effect of Complexity on customer usage of e-banking.
5. To identify impact of perceived Risk associated with E-banking on usage of E-banking.

1.5. Research Hypotheses

In addition to answering the research questions the study tested the following hypothesis

H1: Relative advantage has significant positive impact on customer usage of e-banking

H2: Trialablity has significant positive effect on customer usage of e-banking

H3: Compatibility has significant positive impact on customer usage of e-banking

H4: Complexity has significant negative impact on customer usage of e-banking

H5: Risk has significant negative impact on customer usage of e-banking

1.6. Significance of the study

This study is expected to be very beneficial for the bank to understand factors which affect customer intention to adopt e-banking technology also it is expected to be use full for government, customers, academicians, policy makers, researchers and for the general society as a further knowledge and source of information. Generally the significance of this research can be summarized as follow

- ❖ It could serve as a source of document for the management of the bank for decision making regarding the problem related with to use e-banking technology. If there is at all.
- ❖ It will serve as partial fulfillment of the requirements of the award on master's degree.

- ❖ The researcher have be enable to relate the theoretical knowledge regarding intention to adopt new technology with the real existing practice
- ❖ In addition, this study expected to help other researchers who will be interested to conduct further study regarding the issue under investigation by providing use full information.
- ❖ Finally based on the factors found to be affecting customer's usage of E-banking system, the study was provided recommendations for the bank.

1.7. Scope and Limitation of the study

The study focused only on customers of Wegagen bank south Addis Ababa district. It explored factors affecting customer's usage of e-banking. The major limitation of the study was that, there was limited literature on research concerning the factors influencing e-banking in Ethiopia and this prompted the researcher to carry an in-depth study in order to draw out the factors influencing e- banking in Ethiopia.

1.8. Organization of the study

The research report was organized into five chapters: Chapter one focuses on the background of the study, problem statement, objectives and significant of the study. In chapter two, a range of literatures review is captured there to gather relevant information concerning E-banking. In chapter three, detail of methodology followed to achieve results is outlined. It includes the study design, sampling, sampling technique and data analysis. Chapter four contained results and discussion from the study supported with findings from other research works. Chapter five focuses on main findings, conclusions and recommendations of the study.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1. An Overview of E-banking

The definition of electronic banking (E-banking) varies amongst researchers partially because electronic banking refers to several types of services through which a bank's customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols, 1998; Sathye, 1999).

Different authors have defined it in different ways based on their understanding of the application of electronic banking. The following are few of them

E-banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. E-banking includes the systems that enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet ATM , Debit card ,credit card etc. The computer applications are paramount concern to the banks in today's business environment and internet has become the major platform for all financial, banking and commercial transactions in the present scenario Magembe and Shemi (2002). It is an invaluable and powerful tool driving development, supporting growth, promoting innovation and enhancing competitiveness (Kamel, 2005) and Nath, Shrick and Parzinger (2001). Banks and other businesses alike are turning to Information Technology (IT) to improve business efficiency by delivering the service with minimum cost, service quality and attract new customers (Nath et al, 2001). Technological innovations have been identified to contribute to the distribution channels of banks. The evolution of banking technology has been driven by changes in distribution channels as evidenced by automated teller machine (ATM),Debit card ,credit card ,visa card, Phone- banking, Tele-

Electronic banking is the use of a computer to retrieve and process banking data (statements, transaction details, etc.) and to initiate transactions (payments, transfers, requests for services, etc.) directly with a bank or other financial service provider remotely via a telecommunications network (Yang, 1997, pp.2) same is shared by (Malak, 2007).

E-Banking, a combination of two words, Electronic technology and banking, is a process by which a customer performs banking transactions electronically without visiting a banking institution. It involves an extensive use of Information technology that eliminates the need for direct recourse to the bank by the customer as an umbrella term; it encompasses a number of products and services under its ambit which include ATM, debit/credit cards, phone/mobile banking and PC/Internet banking etc. Recently, electronic banking has become the way for the development of banking system, and the role of electronic banking is increasing in many countries. It offers opportunities to create services processes that demand few internal resources, and therefore, lower cost. As well as it provides wider availability and possibility to reach more customers. From the customers' point of view, electronic banking allows customers easier access to financial services and time saving in managing their finance (Almazari and Siam, 2008; Ayrga, 2011; Tan and Teo, 2000).

Sathye (1999) also asserted that electronic banking can be defined as a variety of the following platforms: (a) Internet banking (or online banking), (b) telephone banking, (c) television-based banking, (d) mobile phone banking, and (e) PC banking (or offline banking).

Daniel (1999) explained, E-banking is online banking (or Internet banking) which allows customers to conduct financial transactions on a secure website operated by their retail or virtual bank, credit union or building society. This implies that E-banking is a service that allows an account holder to obtain account information and manage certain banking transactions through a personal computer via the financial institution web site on the internet.

According to Singh & Malhotra (2004), E-banking can be defined as the deployment of banking services and products over electronic and communication networks directly to customers.

E-banking can be also defined as a variety of platforms such as internet banking or (online banking), TV-based banking, mobile phone banking, and PC (personal computer) banking (or offline banking) whereby customers access these services using an intelligent electronic device, like PC, Personal Digital Assistant (PDA), Automated Teller Machine (ATM), Point of Sale (POS), kiosk, or touch tone telephone (Alagheband 2006, p.11).

In general, E-banking is an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution.

2.1.2 Evolution of E-banking

Since the late 1990s E-banking has developed from virtual insignificance to tens of millions of users worldwide (OECD, 2004). However, E-banking is the product of different generations of electronic transactions. The current web-based internet is the latest of several generations of systems: Automated Teller Machine (ATMs), Phone Banking, PC or House Banking. Automated Teller Machines (ATMs) were the first well-known machines to provide electronic access to customers where as in phone banking, users call their bank's computer system on their ordinary phone and use the phone keypad to perform banking transactions. PC banking superseded phone banking and allowed users to interact with their bank by means of a computer with a dial-up modem connection to the phone network. Phone and PC banking entailed maintenance costs associated with keeping up to date with diverse modems and with avoiding prohibitively complex installation procedures. After those generations Deutsche Bank launched the very first Internet banking project in Latin America in 1996 and Citibank has developed a special "e-toolkit" across all its branches worldwide (UNCTAD, 2002). E-banking uses the web browser for the user interface and the Internet for data transfer and download of software, and so has a potential for reducing maintenance costs. For users, E-banking provides current information, 7x24 accesses to banking services. The primary services provided by e-banks are transferring money among one's own

accounts, paying bills, and checking account balances. Loans, brokering, share trading, service bundling, and hosts of other financial services are being added to these primary services.

The evolution of e-banking started from the use of Automatic Teller Machines (ATMs) and Finland is the first country in the world to have taken a lead in e-banking Mishra and Kiranmai (2009) in order to provide efficient and effective service to their customers. Electronic banking has been widely used in developed countries and is rapidly expanding in developing countries. However, the slow diffusion of e-commerce to African countries has been attributed to a number of issues some of which may be unique to the African Continent (Darley, 2001).

2.1.2.1 E-Banking System in Ethiopian Banking Industry

The appearance of E-banking in Ethiopia goes back to the late 2001, when the largest state owned, commercial bank of Ethiopia (CBE) introduced ATM to deliver service to the local users. In addition to eight ATM Located in Addis Ababa, CBE has had Visa membership since November 14, 2005. But, due to lack of appropriate infrastructure it failed to reap the fruit of its membership. Despite being the pioneer in introducing ATM based payment system and acquired visa membership, CBE Lagged behind Dashen bank, which worked aggressively to maintain its lead in E-payment system. As CBE continues to move at a snail's pace in its turnkey solution for Card Based Payment system, Dashen Bank remains so far the sole player in the field of E-Banking since 2006. (Gardachew, 2010)

Dashen bank, a forerunner in introducing E-banking in Ethiopia, has installed ATMs at convenient locations for its own cardholders. Dashen's ATM is available 24 hours a day, seven days a week and 365 days a year providing service to Debit Cardholders and International Visa Cardholders coming to the country. At the end of June 2009, Dashen bank has installed more than 40 ATMs in its area branches, university compounds, shopping malls, restaurants and hotels. In the year 2011 the payment card services have witnessed significant strides, Dashen's ATM service expanded to 70 and 704 POS terminals (Annual report of the bank 2011).

Available services on Dashen Bank ATMs are: Cash withdrawal, Balance Inquiry, Mini statement, Fund transfer between accounts attached to a single card and Personal Identification Number (PIN) change. Currently, the bank gives debit card service only for Visa cards. Dashen bank clients can withdraw up to 5,000 birr in cash and can buy goods and services up to 8,000 to 13000 birr per day. Expanding its leadership, Dashen Bank has begun accepting MasterCard in addition to Visa cards. Dashen won the membership license from MasterCard in 2008.

Harnessing its leadership with advanced banking technology, Dashen Bank signed an agreement with iVery, a South African E-payment technology company, for the introduction of mobile commerce in April 21, 2009. According to the agreement, iVery Payment Technologies has licensed its Gateway and MiCard E-payment processing solution to Dashen Bank. Dashen's Modbirr users can transfer 500 birr to other Modbirr users in 24 hours a day. This would make Dashen Bank the first private bank in Ethiopia to acquire E-commerce and mobile merchant transactions (Amanyehun, 2011). Although Dashen's new technology is one step ahead in that it allows transfer of funds from one's account to others, the first ever E-banking gateway was signed between Ethiopian Commodity Exchange (ECX) and Dashen Bank and CBE. The E-banking system being developed with both banks is designed to give a secure electronic data sharing gateway between clients, banks and ECX, by facilitating a smooth transaction (Abiy, 2008)

By the end of 2008 Wegagen Bank has signed an agreement with Technology Associates (TA), a Kenyan based information technology (IT) firm, for the development of the solutions for the payment system and installation of a network of ATMs on December 30, 2008 Zemen Bank, the only Ethiopian bank anchored in the idea of single branch banking, by launching full-blown internet banking, a service which is new to Ethiopian banking industry in the year 2010. The bank tested the venture through its first phase of the online service, and now it is already started the full-fledged version, which enable customers to make online money transfer freely. Previously, the online banking service, delivered by the bank, only gave access to bank statements and exchange rate information. The new and never-been-tried

service proposed by the bank is to include free account money transfer, corporate payroll uploading system where employers could upload payroll to the system and make payments to individual worker's accounts online and online utility bill settlement system, when utility companies are ready(Asrat, 2010).

The agreement signed by three private commercial banks to launch ATM and POS terminal 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 agreed in principle to establish an ATM network called Fettan ATM network. If everything goes as planned, Fettan ATM will install over 140 ATM machines and over 340 POSs across Ethiopia. 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 (Binyam, 2009)

2.1.2.2 E-banking in wegagen bank

On top of expanding branches' physically, the bank has been diversifying and expanding its service delivery channels by applying innovative information technology to excel its service provision and create convenience for its customer. As result, the banks way of banking has been diversified to include digital channels such as Automated Teller Machine (ATM), point of sale (POS), internet banking and mobile banking. In addition to Master Card and VISA international card service, the bank is also providing agency banking services to its esteemed customer using hello cash platform. Accordingly, the total number of ATM and POS terminals reached 200 and 293, respectively, as at june30, 2018, showing a growth over the beginning year level (wegagen bank annual report 17/18).

2.1.3. Forms of E-banking

The tools/channels use in executing e–banking includes plastic cards (debit cards, credit cards, and prepaid cards), personal computers, telephone, mobile phones, internet, ATM’s, POS or point of interaction machines Morufu and Taibat (2012). The description of the above mentioned tools/channels are as follows: -

A. Plastic cards

- **Debit cards:** - Debit card is a banking card enhanced with ATM and POS features so that it can be used at merchant locations. Debit cards allow you to spend only what is in your bank account. It is a quick transaction between the merchant and your personal bank account. A debit card is linked to an individual’s account, allowing funds to be withdrawn at the ATM and point of sale without writing a cheque. When using a debit card to pay for goods and services, the purchase amount is deducted from the cardholder’s checking account. The types of debit card include online debit card and offline debit card. With offline debit card, debit is not made immediately. Benefits of using a debit card include making the payment process at the checkout counter quicker and more convenient, eliminating the need to carry a cheque book and a lot of cash, using it at locations where personal cheques are not accepted, and reducing the possibility of loss or theft of cash (Okoye, 2013).
- **Prepaid debit cards:** - These are debit cards not usually linked to a customers’ account. They must be funded before being used by cardholders. Prepaid debit cards are identified with such names like cash cards, value cards, and Naira cards etc. prepaid cards can be used as gift cards students ID cards, Government payment card, payroll card, Bursary card, insurance cards, travel cards etc.
- **Credit Cards:** - A credit card is different from a debit card in that it does not remove money from the user’s account after every transaction. In the case of credit cards, the issuer lends money to the consumer (or the user) to be paid to the merchant. A credit card allows the consumer to revolve their balance at the cost of having interest charged. The parties involved in a credit card transaction include cardholder, card

issuing bank, merchant, acquiring bank, independent sales organization, merchant account, credit card association, transaction network, and affinity partner.

B. Automated Teller Machines (ATM):- This is a computerized telecommunications device that provides the customer of a financial institution with space to financial transaction in a public space without the need for a human clerk or bank teller. Using an ATM, customers can access their bank accounts in order to make cash withdrawals and check their account balance. ATM's rely on authorization of a financial transaction by the card issuer or other authorizing institution via the communications network. Many banks charge ATM usage fees for transactions (Ibid).

C. Point-of-Sale Transfer Terminals (POS) - The system allows consumers to pay for retail purchase with a check card, a new name for debit card. This card looks like a credit card but with a significant difference. The money for the purchase is transferred immediately from account of debit card holder to the store's account (Malak, 2007).

D. Internet / extranet banking-According to Booz, Allen & Hamilton (1999), "Internet banking" refers to systems that enable bank customers to access accounts and general information on bank products and services through a personal computer (PC) or other intelligent device.

E. Mobile banking:- can be defined as an occurrence when customers access a bank's networks using cellular phones, pagers, personal digital assistants, or similar devices through telecommunication wireless networks (Segun, 2011). It means performing banking activities which primarily consists of opening and maintaining mobile/regular accounts and accepting deposits; furthermore, it includes performing fund transfer or cash-in and cash-out services using mobile devices (NBE Directive, FIS-01-2012).

F. Tele-banking: - according to Habibur, Mohammed and Sayeed (2012) Telephone Banking service is provided by phone. To access an account it is required to dial a particular telephone number and there are several options of services. Options included;

- Checking account balance
- Funds transfer between current, savings and credit card accounts
- Bill payments
- Stock exchange transaction
- Receive statement via fax
- Loan payment information

2.2 Theoretical literature

2.2.1. Technology Organization- Environment (TOE)

TOE framework was developed by Tornatzky and Fleischer; 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 and has been used in many studies Salwani, et al., (2009), (Ellis, 2009), Chang et al., (2007), Zhu & Kraemer (2006). According to Tornatzky and Fleischer (1990), technology adoption within an organization is influenced by factors pertaining to the technological context, the organizational context, and the external environment.

- The technological factor refers to adopter's perception of E-banking attributes. Typical characteristics of technology considered in technology adoption studies are based on the assumption of Roger's diffusion of innovation Which include relative advantages (perceived benefits), and relative disadvantages (perceived risks). Technological factors include complexity, compatibility, relative advantage, ease of use and usefulness. The technological factors are related to challenges to technology adoption and its perceived benefits. The perceived benefits for manager could be direct, such as cost savings or income generation, or indirect, such as potential opportunities in new market, marketing, or publicity (Rogers 2003).

- The organizational factor refers to the organizations characteristics that influence its ability to adopt and use of E-banking system. The organizational factors that have been mostly cited in literature include: Information Technology (IT) users' community; organizational structure; firm's process; firm size; technological capabilities of the organization's members; the technological and financial resources available; process of selecting and implementing the IT; management backing and support for the project (Harrison, 2012).
- The environmental factor refers to the external environment in which an organization operates and its condition for supporting the development of E-banking services. Environmental factors relating to IT adoption (and specifically the adoption of internet technologies) includes pressure from competitors, customers or suppliers; the role of government (incentives); partners, alliances; technological infrastructure; technology consultants; image of internet technology; and users expectations (Harrison, 2012).

2.3.2 Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) was introduced by (Davis, 1986) quoted in Davis et al., (1989). Technology acceptance model is an adaptation of Theory of Reasoned Action (TRA), developed to specifically deal with modeling user acceptance of information systems. As compared to TRA, Technology Acceptance Model is significantly less general. The model was developed to particularly explain the computer usage behavior. But since, TAM includes findings collected from over a decade of Information System (IS) research, so it is particularly well-suited for modeling computer acceptance.

The Technology Acceptance Model (TAM) defines the casual relationship between perceived usefulness, ease of use, system design features, attitude towards using and actual usage behavior. In general, an informative representation of the mechanisms by which design choices influence user acceptance is provided by TAM. Hence, Technology acceptance model is useful in applied contexts for forecasting and evaluating user acceptance of information technology (Davis, 1993).

According to Technology Acceptance Model (TAM), perceived usefulness (PU) and perceived ease of use (PEOU) are two key beliefs that are mainly relevant for computer acceptance behavior. Theory of Reasoned Action (TRA) is used by TAM as a theoretical basis to specify causal association between these two key beliefs i.e. PU and PEOU.

- Perceived usefulness (PU) is defined as the degree to which a potential user thinks that using a particular system would increase his/her job performance. The term usefulness is derived from the word ‘useful’, which means the advantage of using particular IS. Whereas,
- Perceived ease of use (PEOU) is defined as the degree to which a potential user thinks that using a particular system would be free of effort. The word ‘ease’ means, freedom from difficulty, hardship or effort. In short, ease of use means ‘user-friendliness’ of IS (Davis, 1989).

2.3.3 Perceived Risk (PR)

Perceived Risk is introduced by (Bauer, 1960), and he explained that it is uncertainty that comes in the mind of customers while making decision about E-Banking adoption. According to Natarajan et al., (2010), Perceived Risk (PR) is basically the user’s fear of occurring of any kind of loss. Perceived Risk is the uncertainty that users perceived which can affect their attitude of using the E-Banking Chan et al., 2004). Zhao, Lewis, Lloyd, and Ward (2010), PR is the belief of users that negative outcomes can occur by using technology so this thing caused negative influence on perceived usefulness (PU) and their attitude toward using. Al-Somali, Gholami, and Clegg (2009), PR is the perception of the users about security system that there is the Risk of losing their private information. Perceived risk is a customer’s expected loss that caused negative consequences Peter and Ryan (1976), Feather man and Pavlou(2003). Perceived Risk consist of six components Jacoby and Kaplan (1972):

- Financial risk
- Performance risk
- Social risk Physical risk
- Psychological risk

So high the perceived risk less will be adoption and vice versa. Perceived risk also directly influence the perceived usefulness (PU) and attitude toward the Adoption of E-banking

2.3.4. Theory of Planned Behavior (TPB)

TPB is developed originally based on the theory of reasoned action (TRA) which explains almost any human behavior. In predicting and explaining human behavior across various application contexts, it has been proven successful. According to TRA, a person's behavioral intention guides his actual behavior of performing some certain action and where subjective norm and attitude toward the behavior determine the behavioral intention Liao et al., (2007). According to (Ajzen, 1991) quoted in Liao et al., (2007, p. 2809), "behavioral intention is a measure of the strength of one's willingness to try while performing certain behaviors". As in the original model of TRA, there are some limitations when dealing with behavior for which there is incomplete volitional control of people. Therefore, TPB is proposed to eliminate these limitations; and in fact, TPB differs from TRA because of the addition of perceived behavior control, which potentially effects behavioral intention.

According to Ajzen (1991), the theory of planned behavior proposes three independent determinants of intention which are attitude towards the behavior, subjective norm and perceived behavioral control.

- Attitude as defined by Fishbein and Ajzen (1975) quoted in Liao et al., (2007, p. 2809), is "the degree of one's favorable or unfavorable evaluation of the behavior in question". The attitudes are developed reasonably from one's beliefs about object of the attitude.
- Subjective Norm refers to "the perceived social pressure to perform or not to perform the behavior"(Ajzen, 1991 quoted in Liao et al., 2007, p. 2809). It can be said that it is related to the normative beliefs about other people's expectations on either to perform or not to perform the behavior.
- Perceived behavioral control refers to "people's perception of ease or difficulty in performing the behavior of interest" (Ajzen, 1991 quoted in Liao et al., 2007, p.

2809) and is assumed to reflect past experiences as well as the predicted difficulties and barriers. The construct of the perceived behavioral control in the TPB is added to cope with the situations in which people may lack the complete volitional control over the behavior of interest. Perceived behavioral Control is directly connected to the beliefs of the control factors that can facilitate or hinder the performance of the behavior (Ajzen, 2002) quoted in Liao et al., (2007). Control factors can be referred to as the internal or external constraints where internal constraints are related to self efficacy and external constraints to the environment (Ajzen, 1991 quoted in Liao et al., 2007).

Generally speaking, the more favorableness and un-favorableness of the attitude, subjective norm and the higher perceived behavior control are directly proportional to the strength of one's intention to perform the behavior under consideration (Ajzen, 1991).

2.3.4 Innovation Diffusion Theory (IDT)

According to (Rogers,1995 p. 11), innovation is defined “an idea, practice, or object that is perceived as new by an individual or other unit of adoption”, whereas diffusion is defined as “the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers, 1995, p. 5). Therefore, Innovation Diffusion Theory (IDT) states how new ideas, concepts or technologies spread or become common in a society and adopted by users.

Innovation Diffusion Theory (IDT) Includes fives characteristics. These characteristics as defined by Rogers (1995, pp. 250-251) are:

- **Relative Advantage:** “The degree to which an innovation is perceived to be better than the idea it supersedes”.
- **Compatibility:** “The degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters”.
- **Complexity:** “The degree to which an innovation is perceived as relatively difficult to understand and use”.

- **Trialability:** “The degree to which an innovation may be experimented with on a limited basis”.
- **Observability:** “The degree to which the results of an innovation are visible to others”.

The above mentioned characteristics, defined by (Rogers, 1995) greatly influence adoption. According to Chen et al., (2000), among five characteristics of IDT, relative advantage, compatibility and complexity are the only attributes, which are consistently related to innovation adoption.

2.3. Review of Empirical Literature

A lot of related studies were conducted by different researchers in different countries. Nevertheless, there are limited numbers of studies were conducted in Ethiopia on the adoption and development of the technological innovation particularly on E-banking services 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 E-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. (Ayana, 2012) also conducted research on factors affecting adoption of E-banking System in Ethiopian Banking industry. The study was conducted based on the data gathered from four banks in Ethiopia. The result of the study indicated that, the major barriers Ethiopian banking industry faces in the adoption of Electronic banking are: security risk, lack of trust, lack of legal and regulatory framework, Lack of ICT infrastructure and absence of competition between local and foreign banks. The

study also identified perceived ease of use and perceived usefulness as a driver of adopting E-banking system.

According to (Harrison, 2012), it is hypothesized that many of the factors affecting the successful adoption of new technologies such as e-commerce and E-banking are generic in nature and that the successful adoption of internet technologies in part depends on how these are used in conjunction with the other technologies and management practices that form a technology cluster. However, the most critical challenges can be ascribed to the very limited information and communication infrastructure available in most developing countries. Reasons vary widely among sectors and countries and are most commonly related to lack of applicability to the business, preferences for established business models, (OECD, 2004). Common challenges includes; enabling factors (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 ecommerce systems, uncertainty of payment methods, legal frameworks and intellectual property right); and challenges in areas of management skills, technological capability, productivity and competitiveness.

Lack of reliable trust and redress systems and cross country legal and regulatory differences was also impede e-commerce adoption (OECD, 2004). It is however important to note that challenge to e-commerce adoption work differently according to organizational type and culture. Areas of training and people development need to be addressed Harrison (2012).

The study that was conducted by (Isaac, 2005) indicated that the challenges for the adoption of E-banking in Africa are security, human face i.e. customers still value personalized and responsive services from their bankers, poor and/or lack of technological infrastructure especially in the rural areas, lack of proper legislation governing e-transactions and preference to paper money, as opposed to “virtual” cash in transactions etc.

Ziad et al., (2009) also analyzed E-commerce challenges in terms of three categories: economic, socio-political and cognitive. The economic obstacles include several factors that

affect the diffusion of e-commerce such as slow internet diffusion, unavailability of credit cards, unavailability of a physical delivery system, and low bandwidth availability.

The socio-political challenges take account of government regulations like privacy and security, lacks of business laws for e-commerce, lacks of legal. Finally, the cognitive hindrances contain a number of factors which lead to a negative cognitive assessment of E-commerce of individuals and organizations like inadequate awareness, knowledge, skills, and confidence; a lack of awareness and understanding of potential opportunities; lack of confidence in service providers and the postal network and computer illiteracy.

Japhet and Usman (2010) identified the following specific challenges hindering the adoption of e-commerce in developing countries.

- Lack of convenient payment means, poor distribution system, imperfect legal system, and lack of large scale telecommunication transmission capability (broadband), Internet security are problems face these countries.
- Another most pressing limitations are access to technology (computers, connectivity, and gateway to Internet), limited bandwidth, which reduces the capacity to handle audio and graphic data; poor telecommunications infrastructures and unreliable electricity supply.
- The cost of the Internet access makes it inaccessible to most users in developing countries. The cost of accessing the infrastructures also influences the growth of ecommerce. The priority for most developing countries is to put in place the necessary infrastructure and a competitive environment and regulatory framework that support affordable Internet access. The monthly connection cost of the Internet far exceeds the monthly income of a significant portion of the population.
- Confidence and trust is also an essential requirement for secure electronic trading. The geographical separation of buyers and sellers, often coupled with a lack of real-time visual or oral interaction, creates a barrier to ecommerce adoption in developing countries. Language is another important hindrance to ecommerce adoption. Most people in developing countries are illiterates and uneducated. Moreover, English is a

primary language used in many Western countries where new technologies originate. It is the predominant language for development of IT and ecommerce and it is the main language used on the Web.

- Finally, the study identified various socioeconomic characteristics as barriers hindering ecommerce adoption in developing countries. The most common are unfavorable economic condition , the poor state of educational system , Lack of ICT skills and business skills ,un reliable and non secure payment infrastructures , the inefficient logistics and distribution system and the lack of good transport

A research conducted by Eze and Nwankwo (2012) stated that the following as major challenges for adoption and development of E-banking technology in Nigeria:-

- Legal and Regulatory framework: - The absence of a proper legal and regulatory framework for internet constitutes one of the major challenges of E-banking. The existing banking laws do not address the issue of E-banking as a new banking system
- Consumer Protection: - Another major challenge of the development of E-banking is the issues of adequate protection for consumers of banking products from the various risks to which they are exposed to. The risks include financial loss, malfunctioning of terminals or cards as well as the possibility of unauthorized disclosure of information without the consent of the consumer. The challenges here range from customer details being stolen from the vendor's files to the selling up of a fraudulent website by fake customer to deceive other innocent customers.
- Loss of Audit Trail: - Another challenge of E-banking is the loss of audit trail as business processes continue to change with internet banking, personal computer and telephone banking. Audit trail basically allows for the tracing of transactions through banking environment facilitates the work of supervisors in ascertaining the reliability or otherwise of the information contained in the master file.
- Security of Financial Transactions: - There are numerous threats to the security of internet banking. One of such threats is the fear of insecurity and trust associated with on-line banking which can only be tackled by a good online developer that can put in

place the required firewalls whereby only the authentic users can gain access. Security breaches in E-banking are most frequently discussed in terms of the dangers that hackers may intercept messages, misuse the information on modify the content of the message.

- Money Laundering and other Financial Crimes: - Another major challenge is that under E-banking the financial system is prone to criminal abuse such as money laundering and other financial crimes. Money laundering and other financial crimes are easily facilitated through E-banking. This has given a lot of work to monetary authorities which have continued to work to see that the activities of the money launderers and fraudsters are brought under control.
- Systems and Infrastructure Failure: - Systems and infrastructural failure have also a lot of effect on E-banking. Failure results to loss of data. System failure can be caused by software failure either at the entity or at an organization used for outsourced functions. Infrastructure failures are mainly caused by power failure. The system and infrastructural really given a lot of setback to development E-banking.
- The Potential Risks of E-banking: - Electronic delivery and payments systems involve a wide range of potential risks. The use of an electronic channel to deliver products and services introduces unique risks due to the increased speed at which systems operate and the broad access in terms of geography, user group, applications database and peripheral systems. The potential risks bring by the e – banking has a lot of implications for the safety and soundness of the nation’s banking system.

A research conducted by (Vaithianathan, 2010) stated that lack of technology infrastructure, lack of awareness, lack of skilled human resources, and the lack of government initiatives, including various economic and social factors are cited as hurdles that prevent pervasive e-commerce adoption in Indian.

2.2.1 Benefits of E-banking

Banks just like other businesses are tuning to information technology to improve business efficiency, service quality and attract new customers. Farshad et al., (2013) aver that the most important factors encouraging consumers to use online banking are lower fees followed by reducing paper work and human error. Subsequently electronic channels can lead to lower transaction costs which are very competitive Claessens and Kliengbiel (2000). Farshad et al., (2013) is of the view that disputes can be minimized between the employees as there is a clear flow of processes. Conducting business outside the normal branch working hours has also been a factor that has been considered convenient for bankers, inexpensive access to the bank 7x24 and seven days a week. Increased availability and accessibility of more self service distribution channels help bank administration in reducing the expensive branch network and associated staff overheads. A reduction in the percentage of customers visiting the banks with an increase in alternative channels of distribution will also minimize the queues in branches Thornton and White (2001). According to Thornton and White (2001) this ultimately leads to improved customer satisfaction. Jayawardhena and Foley (2000) observe that electronic banking increases competition within the banking system and also from non-bank financial institutions.

Electronic banking also increases the power of the customer to make price comparisons across suppliers quickly and easily and as a consequence this pushes prices and margins downward. (Kerem, 2003) observed that banks are responding to electronic banking differently and that those which see electronic banking as a complement and substitute to the traditional channels achieved better communication and interactivity with the customers. Other benefits that have accrued because of the adoption of electronic banking in developed countries include the ability to attract new customers and widening the customer database, improving bank marketing and communication, and having the ability to retain high profit customers Farshad et al., (2013).

According to (Harrison, 2012), companies can gain two fundamental types of benefits from E-banking. These are generally described as: Value creation or value enhancement for one or more of a company's stakeholder's groups, and lower cost of providing goods and services to the market place. Value creation includes; improvement in internal and external communication through effective e-marketing, increment of sales through an ecommerce website integrated with a back office systems and improvement in supplier relations and productivity through collaborative work spaces. Lower costs are: reduction in communication and travel cost using online meeting tools; shared workspaces and; benefit from license free open source alternatives to proprietary software.

Businesses also see tremendous opportunities for cost saving, revenue generation, increased market share, marketing and market access, and improving customer service through direct links that facilitate speedy enquiry and feedback. Similarly, consumers can inter alia, access the world market through the virtual economy on the internet, choose from a wider variety of products, and shop in the comfort of their homes. Globalization and specifically liberalization of communication networks have all facilitated this breakthrough that further presents a massive boost for international trade.

(Harrison, 2012) suggested that the commercial benefits of E-banking lie in five areas; firstly, firms are able to expand their geographical reach. Secondly, important cost benefits lie in improved efficiency in procurement, production and logistics processes. Thirdly, there is enormous scope for gaining through improved customer communications and management. Fourthly, the internet reduces barriers to entry for new market entrants and provides an opportunity for small firms to reorient their supply chain relationships to forge new strategic partnership. Finally, e-commerce technology facilitates the development of new types of products and new business models for generating revenues in different ways as well as different revenue streams.

Humphrey et al., (2001) stated that the introduction and use of E-payment instruments holds the promise of broad benefit to both business and consumers in the form of reduced costs, greater convenience and more secure, reliable means of payment and settlement for a

potentially vast range of goods and services offered worldwide over the internet or other electronic networks. Electronic Payments as argued by (Cobb, 2005) have a significant number of economic benefits apart from their convenience and safety. These benefits when maximized can go a long way in contributing immensely to economic development of a nation.

In general, E-banking service is important for several stakeholders, since it helps them to derive benefits from it. Many Banks have already implemented or are planning to implement E-banking because of the numerous potential benefits associated with it. Moreover since the focus of the study is from the view point of customer same Benefits of adoption E-banking for customer are described below.

2.2.2 Benefit of E-banking for Customers

The benefit of E-banking is not limited 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 diffusion of E-banking (Sathye, 1999). The price debates often revolve around geographical differences and disparities between costs of Internet connections and telephone call pricing. It has also been believed that E-banks have been changing to respond to customers' increasingly changing demands (Pham, 2010). There has been a tendency that customer don't want to travel to or from a bank branch to conduct some banking transactions. In other words, they want to utilize E-banking to save time and money. 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. In addition, customers can enjoy more benefits at lower cost levels by utilizing E-banking (Mols, 1998).

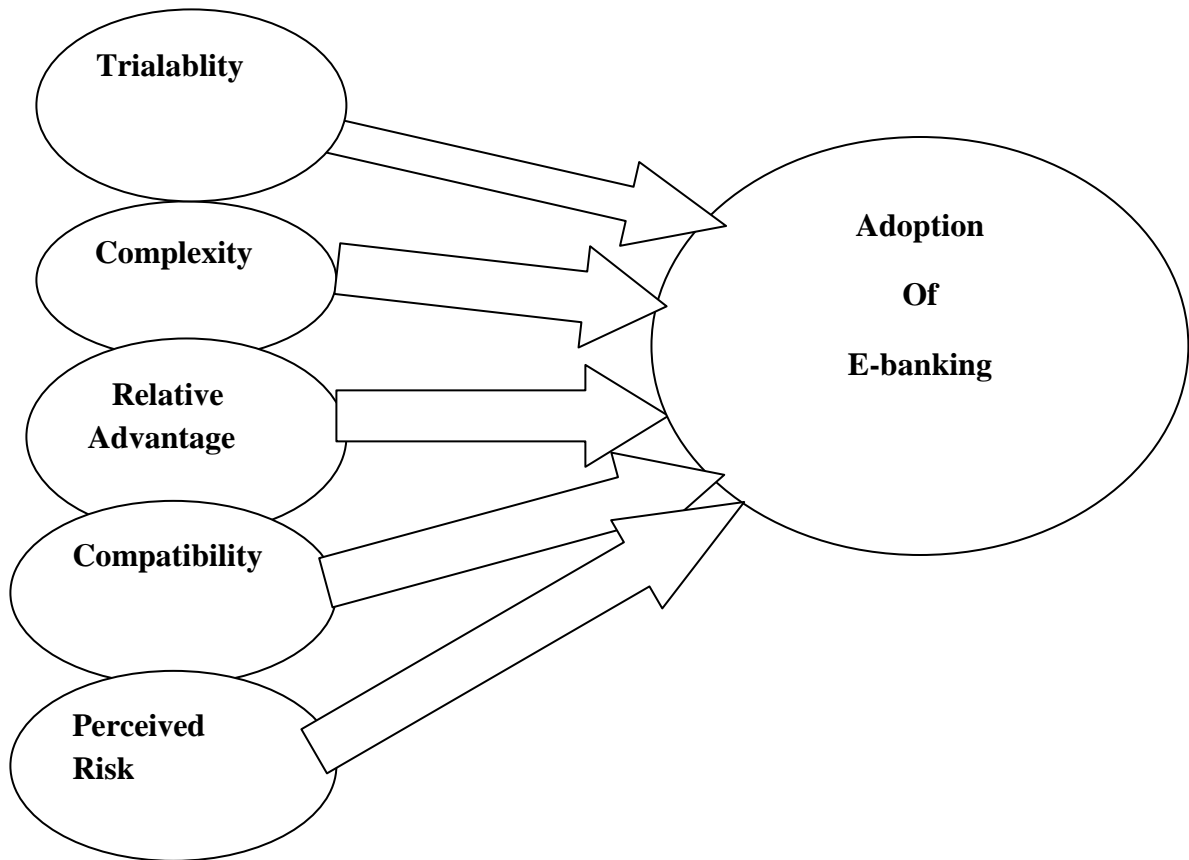
It is contended by (Turban, 2008), that E-banking is really beneficial to customers such as:-

- Convenience – By e-banking, customers can carry out their banking activities whenever you want. E-banking is a 24 hour service, so customers are no longer tied to the branch's hours. On top of that, they don't have to take the time to travel to the branch and wait in the inevitable lines, thus giving you more time to do what you want.
- Mobility – e-banking can be done from anywhere, as long as customers have an Internet connection.
- No Fees – Because an e-bank doesn't have to worry about funding an actual bank location with all of those additional costs, fees can be reduced and are often non-existent. Those checking and savings accounts that are offered by completely online banks usually have no fees at all.
- Online Statements – Most online banks try to be as paper-free as possible. Most statements and correspondence is done online, reducing the amount of paper used and sent out to you. This again will help reduce the costs of the online bank. As an added bonus, this makes online banking a great environmental choice. Be warned, some banks do charge if you do want a paper copy of something.
- Direct Deposit – With any incoming money, such as salary, customers can arrange for it to be directly deposited into the bank account by the company sending the money. This is actually a double benefit, as customers don't have to take the time to deposit the check, plus the money goes into customers account faster allowing them to earn interest that much quicker.
- Automatic Bill Paying – With automatic bill paying, customers can automate paying their monthly bills.

- Real Time Account Information – Because customers can access their accounts anytime, they can get up to date, real time information on the money in your accounts.
- Transfers – Transfers between accounts with the same financial institution online can be done almost instantaneously. Not only is there no hold on the money being moved around, you can do it whenever you like and from wherever.

2.4. Conceptual framework

The conceptual research model (see Figure 1.1) develop in this study will be based on the review of the literature in Chapter Two and the research model suggests that consumers intention to adopt e- banking is affected by Perceived Risks, relative advantage, complexity, compatibility and Trialability



Source: Innovation Diffusion Theory (IDT) of Rogers (1995)

Figure 2.1 shows that the usage of e- banking depends on perceived Risk, complexity, Compatibility, trialablity and relative advantage.

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Description of the study area

Wegagen bank is privately owned Share Company started operation on June 11, 1997 the bank is working hard to expand branches, outlet and districts from them our area of study was focus on SAAD(South Addis Ababa District) of wegagen bank. it is the biggest district from ten district in wegagen bank, in number of branch, number of customer but the research was focus on only four selected branch which are tear One, two, three and four to name the branch have been selected Gofa from tear one meskel from tear two nifassilk from tear three and Akakai from tear four.

3.2. Research Design

Explanatory research design was used to assess factors affecting customer usage of E-banking technology in Wegagen Bank south Addis Ababa district.

3.3 Research Approach

In order to attain the objective of the study and answer the research questions, the researcher was adopted mixed research approach. The questionnaires were reached to individuals and filled by the participating customers and was returned. After that, Spearman's rank correlation and linear regression was used to examine relationship of five hypotheses with actual e- banking usage and there significances. This approach was used as it is satisfactory tool for collecting data from the sample population to investigate the topic under study.

3.4 Source of data

3.4.1 Primary data

The researcher is used primary data for the research. Primary data is considered as a major source of information as it was directly gathered from the respondent through questioners and interview. The researcher was collected the data by using method which can help the researcher to collect the necessary data which is become ingredient for the accomplishment of the whole research. So from the primary data questioner were used. According to (Kothari, 2004), primary data are fresh data that are gathered for the first time and thus happened to be original in character. Primary data of the study was information or Questionnaires that has closed ended questions gathered from customer of the bank.

3.5 Sampling Design and Target Population

The target population of this study was all customers of wegagen bank who has an account in SAAD (south Addis Ababa district),in for selected branch numerically the total number of customer which has account in SAAD is more than 15,000, which include government and private institution, business corporate religious organization public enterprise and individual. There is great amount of money mobilization in the district and it is the biggest district in terms of number of customers and branch but the research was focus only on four selected branch which are tier one, two, three and four.

A sample is a subset of the population to which research intends to generalize the results (Wiersma, 1986). To get the sample size Cochran (1977) formulae was used. According to Cochran when the population is large the following formulae is used

$$n=Z^2Pq/e^2$$

Where

n= the desired sample size

Z= the standard normal deviation at the required confidence level

P= the proportion in the target population estimated to have characteristics being measured

q=1-p

d=the level of statistical significance set

Using the above formulae the researcher got sample size of 384 from a population which is greater than 15,000.

Where:

n = the desired sample size (when the target population is greater than 10,000)

z = standard normal deviation set at 1.96 which corresponds to 95% confidence interval

p = proportion of the target population estimated to have a characteristic that is being measured (at 50%) to maximize sample size.

$$q = 1 - p (1 - 0.5) = 0.5$$

d = degree of accuracy desired set at 0.05 Therefore,

$$n = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} = 384 \text{ respondents}$$

The sampling techniques used in this study were convenient sampling techniques .in order to acquire sufficient information on both quality and quantity the researcher was take a sample of 384 And stratified sampling for the branches ranged from tier(grade) one up to four grade. So each stratum (branch) has 96 respondents.

3.6. Method of Data Analysis

In order to meet the stated research objectives, the collected data was analyzed based on the nature of the objective. Accordingly, the data collected via questionnaires was analyzed with spearman correlation and linear regression using statistical package for social scientists (SPSS).

3.7. Validity and reliability of research instruments

3.7.1 Validity of research instruments

Validity is the degree to which a test measures what it contended to measure (creswell, 2003:19092). A pilot study was conducted to refine the methodology and test instrument such as a questionnaire before administering the final phase. Questionnaires were tested on potential respondents to make the data collecting instrument objective, relevant, suitable to the problem and reliable. Issues raised by respondents were collect and questionnaires were defined. Besides, proper detection by an advisor was also taken to ensure validity of the instruments

3.7.2. Reliability

The reliability of instruments measures the consistency of instruments. (Creswell, 2003) considers the reliability of the instruments as the degree of consistency that the instruments or procedure demonstrates. The reliability of a standardized test is usually expressed as a correlation coefficient, which measures the strength of association between variables. Typically, alpha value of above 70% is usually considered to offer reasonable reliability for research purposes. Constructs are identified and their reliability coefficients as ranged from 86%. Since, instruments were developed based on research question and objectives; it is possible to collect necessary data from respondents. Then, instruments are consistent with the objectives of the study

CHAPTER FOUR

4. RESULTS AND DISCUSSION

4.1 Introduction

This chapter focuses on the questionnaire return rate, demographic information of the respondents, data presentation, interpretation and discussion of findings. The presentation was done based on the research questions.

4.2 Questionnaire return rate

Questionnaire return rate is the proportion of the questionnaires that have been returned after they have been administered to the respondents. Out of 384 questionnaires administered 368 of them were returned making a questionnaire rate to be 95.83% hence a higher one.

4.3 Demographic information of respondents

This section deals with the demographic information of the respondents such as level of education, age and gender of the respondent

As table 4.1 shows majority of the respondents' male (59%) and female (41%). 18-30 years of the respondents 45.1%, 31-40 years of the respondents 44.8% and 41-50 years 7.9% years and above 50 years of respondents 2.2% .In level of education, the majority of respondents were Technical and vocational which is 40.2%, 19.8% of the respondents are degree holder, 19.8% no formal education and 10.1% are other. Year of retainment with the bank as customer less than one year 10.1% ,1-2 year 40%, 19.3% retain form 3-4 year, and 29.9% of respondents' for more than 5 year. 40.2% of the respondents Salaried employed (private), 29.9% Salaried employed (public), 19.8 self employed (own business), 10.1% not work.

Table 4.1: Demographic characteristics of respondents

Characteristics	Choices	Frequency	Percentage
Gender	Male	217	59%
	Female	151	41%
	Total	368	100
Age	18-30	166	45.1%
	31-40	165	44.8%
	41-50	29	7.9%
	51-60	8	2.2%
	Total	368	100
Education level	No formal education	73	19.8%
	Technical and vocational education	148	40.2%
	University	110	29.9%
	Others	37	10.1%
	Total	368	100%
Year of retainment with the bank	Less than 1 year	37	10.1
	1-2 years	148	40.2
	3-4 year	73	19.8
	More than five year	110	29.9
	Total	368	100.0
type of business you are engaged in	Not working	37	10.1
	Salaried employed (public)	110	29.9
	Salaried employed (private)	148	40.2
	Self employed (own business < 500,000 birr capital)	73	19.8
	Total	368	100.0

Source: Own survey, 2019

4.4. Test of Hypothesis

Five hypotheses were formed at the beginning of the research and were tested. Spearman's rank correlation test is used to measure the relationship since gathered data were in form of ordinal scale (5 point likert). All the items in the instrument were tested for correlation with actual E- banking usage. Then those correlations were used to assess the hypotheses thus relationships were accepted and rejected accordingly. All the hypotheses were tested subject to 1% significance level.

Correlations

			COMPATABLITY	TRIABLITY	COMPLEXITY	RISK	ADVANTEGE	ADOPTATION
Spearman's rho	COMPATABLITY	Correlation Coefficient	1.000	.622**	-.167**	-.256**	.499**	.621**
		Sig. (2-tailed)	.	.000	.001	.000	.000	.000
		N	368	368	368	368	368	368
	TRIABLITY	Correlation Coefficient	.622**	1.000	-.006	.042	.478**	.260**
		Sig. (2-tailed)	.000	.	.912	.420	.000	.000
		N	368	368	368	368	368	368
	COMPLEXITY	Correlation Coefficient	-.167**	-.006	1.000	.848**	-.161**	-.260**
		Sig. (2-tailed)	.001	.912	.	.000	.002	.000
		N	368	368	368	368	368	368
	RISK	Correlation Coefficient	-.256**	.042	.848**	1.000	-.163**	-.408**
		Sig. (2-tailed)	.000	.420	.000	.	.002	.000
		N	368	368	368	368	368	368
	ADVANTEGE	Correlation Coefficient	.499**	.478**	-.161**	-.163**	1.000	.792**
		Sig. (2-tailed)	.000	.000	.002	.002	.	.000
		N	368	368	368	368	368	368
	ADOPTATION	Correlation Coefficient	.621**	.260**	-.260**	-.408**	.792**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.
		N	368	368	368	368	368	368

** Correlation is significant at the 0.01 level (2-tailed).

Source; Own Survey, 2019

4.5. Regression

4.6 test of multicollinearity

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.099	.315		6.668	.000		
COMPATABILITY	.118	.018	.203	6.685	.000	.501	1.997
TRIABILITY	-.055	.010	-.168	-5.782	.000	.547	1.827
COMPLEXITY	.040	.017	.070	2.357	.019	.518	1.931
RISK	-.281	.017	-.530	-16.533	.000	.450	2.223
ADVANTEGE	.832	.029	.652	28.659	.000	.892	1.122

a. Dependent Variable: ADOPTATION

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.913 ^a	.833	.830	.43714

a. Predictors: (Constant), ADVANTEGE, RISK, TRIABILITY, COMPLEXITY, COMPATABILITY

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	344.378	5	68.876	360.427	.000 ^b
	Residual	69.176	362	.191		
	Total	413.554	367			

a. Dependent Variable: ADOPTATION

b. Predictors: (Constant), ADVANTEGE, RISK, TRIABILITY, COMPLEXITY, COMPATABILITY

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.099	.315		6.668	.000
COMPATABILITY	.118	.018	.203	6.685	.000
TRIABILITY	.055	.010	.168	5.782	.000
COMPLEXITY	-.040	.017	-.070	-2.357	.019
RISK	-.281	.017	-.530	-16.533	.000
ADVANTEGE	.832	.029	.652	28.659	.000

a. Dependent Variable: ADOPTATION

CHAPTER FIVE

5. SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Summary of findings

Based on the analysis and interpretation made in the previous chapter, the major findings are summarized as follows.

- Relative advantage has a positive correlation coefficient which is 0.792 which means there was strong positive relationship between adoption of E-banking and relative advantage of using E- banking services and it is significant at 1% level of significance with 0.000 value of Sig. (2-tailed).
- Risk has negative correlation coefficient which is -.408 which means there was relatively weak negative relationship between Adoption of E-banking and risk of using E- banking services and it is significant at 1% level of significance with 0.000 value of Sig. (2-tailed).
- Complexity has negative correlation coefficient which is -0.261 which means there was relatively weak negative relationship between Adoption of E-banking and complexity of using E- banking services and it is significant at 1% level of significance with 0.000 value of Sig. (2-tailed).
- Trialability has positive correlation coefficient which is 0.260 which means there was relatively weak positive relationship between Adoption of E-banking and trialability of using E- banking services and it is significant at 0.01 level of significance with 0.000 value of Sig. (2-tailed).
- Compatibility positive correlation coefficient which is 0.621 which means there was positive relationship between Adoption of E-banking and compatibility of using E-banking services and it is significant at 1% level of significance with 0.000 value of Sig. (2-tailed).

- R^2 -Value which is 0.833 or 83.3% shows that the variation in e-banking adoption is explained by the independent variable.
- The adjusted R^2 value, which account for a number of variables show that the independent variables account for 83% of variation in adoption of e-banking.
- The variable relative advantage has largest influence on customer usage at beta value 0.832, followed by Risk, Compatibility, trialability and complexity.

5.2. Conclusion

Based on the main findings above, the following conclusions are drawn.

There was relatively strong positive relationship between Adoption of e-banking and relative advantage of using E- banking services. Highest preference for e-banking is the convenience to its customers and most popular e-banking facility is to view balance and in addition to that significant customers used to pay utility bills and relatively to view information such as interest rates, exchange rates, and bank details, etc. (Jayasiri & Weerathunga, 2008). So the support for relative advantage was expected since past literature showed significant and positive influence on the adoption of new innovations. Ultimately more the convenience and less the effort people tend to adopt E- banking.

There was relatively strong negative relationship between the risk of using internet banking and its adoption, Since internet banking involve with money, people are more afraid to use because there are lot of frauds heard all over the world so they don't want to lose their money even it is easy way.

There was relatively negative relationship between complexity of using e- banking and its adoption. This means the lower the complexity of using e- banking, the more likely that e-banking will be adopted.

There was positive relationship between Trial ability of internet banking and its adoption. Possible reasons might be, increase in on-hand experience will mitigate the negative perception and will aware about the benefits of internet banking.

There was relatively moderate positive relationship between compatibility of E- banking with one's values and its adoption. It viewed that the perceived compatibility of an innovation has a positive influence on the adoption of the innovation. In other words, even internet users who feel that using E- banking is compatible with their values about living and working were more inclined to adopt such services. Most of the e-banking customers are few day a month visitors to the bank (Jayasiri & Weerathunga, 2008).

The regression results show that there is strong relationship between the independent dependent variable and R^2 Value show that the variation in e-banking adoption is explained by the independent variable. The adjusted R^2 value, which account for a number of variables show that the independent variables are account for the variation in adoption of e-banking.

The implications of these findings and conclusions were that banks need to play a leading role in influencing the perception, and there by the attitude and behavior of current and potential E- banking users. The outcome of this study has practical implication and recommendation for banks.

5.3. Recommendation

Based on the above findings, to improve the adoption of e- banking in district the researcher recommends the followings.

- Awareness of E- banking services is essential in early adoption stages. Effective presentations using all forms of media advertising such as leaflets, brochures, web pages, etc., will be useful to introduce the services to a wider audience and educate potential customers about benefits of E- banking.
- To access more potential adopters, information about E- banking should be provided by bank teller and bank assistants at branches. The information should include references to time saving, convenience at anywhere any time, low cost and information availability.
- In addition, banks should design their web sites as effective delivery channels and offer information by providing a well-designed and user-friendly website to attract potential adopters' attention. The customer should not be required to expend a lot of effort or time, or undergo too great a change in behavior, to adopt E- banking services. Information and instructions on the web should be provided in both English and some other local language like Amharic, Afanoromo, Tigrigna, and Somali... etc in order to make the adopter comfortable.
- Wide promotion highlights the benefits and ease of use by demonstrating E-banking services should be provided. This could be implemented by providing personal computers at bank branches accompanied by good documentation and bank assistance.

- Regular surveying of customers' responses and opinions of the services should be conducted to ensure continuous improvement.

- Develop risk reducing strategies that could reduce the customers' concerns about such services. These strategies include the development of the security of electronic banking services, protecting personal information, giving unconditional loss guarantees, reducing the possibility of delays of payment and waiting time and providing accessible customer services and educating customers, which might assist in inspiring high confidence in potential customers.

- Developed Effective co-operation among banks.

- Increase value of e- banking by linking one activity with other both within banks and with outside suppliers, channels and customers. Furthermore, e-banks should collaborate with ISPs because it will enable the bank to better control quality of services as well as enhance adopters' accessibility. In addition, a high quality internet infrastructure should be provided since it is one of the primary requirements for e-banking usage.

Reference

- Alagheband, P 2006, *Adoption of electronic banking services by Iranian Customers*, MA thesis, Lulea University of Technology, <http://www.epubl.ltu.se/1653-187/2006/49/LTU-PB-EX-064SE>. Viewed 15 March 2019.
- Ajzen, I., 1991. *The Theory of Planned Behavior*. *Organizational Behavior and Human Decision Processes* [e-journal] 50, pp. 179–211
- Al-Smadi, M. O., and Al-Wabel, S. A. (2011). *The Impact of E-Banking on The Performance of Jordanian Banks*. *Journal of Internet Banking and Commerce*, 16(2).
- Almazari, A. A. K., and Siam, A. Z. (2008). *E-Banking: An Empirical Study on the Jordanian Commercial Banks*. *Journal of King Abdul-Aziz University* 22(2), 3-26
- Ayana Gemechu, 2010, *Adoption of Electronic banking system in Ethiopian Banking industry: Barriers and Drivers*, *Journal of Management Information System and Ecommerce* Vol. 1, No. 1; June 2010 Addis Ababa University, Ethiopia.
- Barriers and Drivers, *Journal of Management Information System and Ecommerce*, Binyam, T, 2009, Daily Monitor, February, 20, 2009
- Booz-Allen and Hamilton (1999). *Corporate internet banking: A global study of potential Effects*, New York, NY.
- Booz, D., and Hamilton, K. (1997). *'E-banking: A Global Study of Potential Effects'*, New York, NY.
- Chen, L., Gillenson, M.L. and Sherrell, D.L., 2000. *Enticing online consumers: an extended*

- Technology acceptance perspective*. Information & Management [e-journal] 39, pp. 705-719
- Cobb Anne (2004), <http://www.ameinfo.com/50050.html> retrieved on 13, March 2019
- Cochran, W.G. (1977). *Sampling techniques* (3rd ed.) New York: John Wiley & Sons
- Creswell, W 2003, *Research Design: Qualitative, Quantitative and Mixed Approaches*, “ 2nd edition. Sage publication, California.
- Daniel, E. (1999), *Provision of Electronic Banking in the UK and the Republic of Ireland*. International Journal of Bank Marketing, 17(2):72–82.
- Davis, F.D., Bagozzi, R.P. and Warshaw, P.R., 1989. User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. Management Science [ejournal] 35 (8), pp. 982-1003.
- Darley, W., K. (2001). *The Internet and Emerging E-commerce: Challenges and Implications for Management in Sub-Saharan Africa* Journal of Global Information Technology Management Vol. 4 No. 4.
- Davis, F.D., 1993. *User acceptance of information technology: system characteristics, user Perceptions and behavioral impacts*. Int. J. Man-Machine Studies [e-journal] 38, pp . 475-487
- Davis, F.D., 1989. Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Quarterly [e-journal] 13 (3), pp. 319-340
- Dewan, R., and A. Seidmann (2001). “Communications of the ACM,” Current issues in E-banking (Special section), 44(6): 31-57.
- Eze, O.R. And Nwankwo, O. (2012): Electronic Payment in Cashless Economy of Nigeria: Problems and Prospect. Journal of Management Research, 5(1): 133-145.
- Farshad Havasi¹, Fattaneh Alizadeh Meshkany, and Reza Hashemi, 2013 ‘E-banking: Status,

- Implementation, Challenges, Opportunities' IOSR Journal Of Humanities And Social Science (IOSR-JHSS) Volume 12, Issue 6 , PP 40-48.
- Gardachew, W 2010, *Electronic -banking in Ethiopia: practices, opportunities and Challenges*“, Journal of internet Banking and commerce, 15(2):2-9
- Goi C.L. (2005) “E-banking in Malaysia: Opportunities and challenges”, Journal of Internet Banking and Commerce Vol. 10 No. 3.
- Harrison Utum Ubi, 2012, *Adoption of e-commerce in the Nigerian banking Industry: problems and prospects, A study of UBA PLC and Zenith Bank PLC*, Nnamdi Azikiwe University, AWKA Anambra State.MA thesis.
- Humphrey, D. B., Kim, M. & Vale, B. (2001). *Realizing the gains from electronic payments: cost, pricing, and payment choice*. Journal of Money, Credit, and Banking, vol. 33, No. 2, pp. 216-234
- Isaac Awuondo (2005). *The Future of E-banking in Africa*
- Jayasiri, N. K., & Weerathunga, W. (2008). *Popularity of e-banking in Sri Lanka*.
- Japhet E. Lawrence, Usman A. Tar (2010). *Barriers to E-commerce in developing countries*, Information, Society and Justice, Volume 3 No. 1, January 2010: pp 23-35 ISSN
- Jayawardhena, C. & Foley, P. (2000). *Changes in the banking sector – the case of internet banking in the UK*. Internet Research: Electronic Networking Applications and Policy, Vol. 10 No. 1, pp. 19-30.
- Kamel S. (2005). “The use of information Technology to Transform the Banking sector in Kerem, K 2003, *Adoption of electronic banking: underlying consumer behavior and critical Success factors” Case study of Estonia*“, paper presented at the 2003 conference of the Technology and everyday life network, London, U.K.
- Kuisma, T., Laukkanen, T., and Hiltunen, M. (2007). Mapping the reasons for resistance to

- Internet banking: A means-end approach. *International Journal of Information Management*, 27(2), 75-85.
- Liao, C., Chen, J-L. and Yen, D.C., 2007. Theory of planning behavior (TPB) and customer satisfaction in the continued use of e-service: An integrated model. *Computers in Human Behavior [e-journal]* 23, pp. 2804–2822
- Malak, J 2007, Readiness of the Palestinian banking sector in adopting the electronic banking System: exploratory study, MA thesis, The Islamic University of Palestine.
- Magembe, S and Shemi A P. (2002). *Challenges and opportunities for adopting Electronic commerce in a developing country: The Botswana Perspective*. IAABD Conference proceedings, Port Elizabeth 2002.
- Mishra R and J. Kiranmai (2009). “*E-Banking: A Case of India*”, The Icfai University Journal of Public Administration, Vol. 5, No. 1, pp. 55-65, 2009.
- Mols, Niels. (1998).*The Behavioral Consequences of PC banking*, *International Journal of Bank Marketing*, pp. 195–201.
- Morufu, O. and Taibat, A. (2012). *Bankers’ perceptions of electronic banking in Nigeria: A review of post consolidation experience*. *Research Journal of Finance and Accounting*, 3(2): 5-6.
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Qualitative and Quantitative Approaches*. Nairobi: Acts Press. Mugenda, O. M., & Mugenda, A. G. (1999). *Research methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.
- Mugenda and Mugenda (1999). *Research Methods: Quantitative and Qualitative Approaches*. African Centre for Technology Studies. Nairobi, Kenya.

- Nasim Z, Hosein(2009) Internet Banking: An Empirical Study Of Adoption Rates Among Midwest Community Banks Shantou University, Shantou, China, Journal of Business & Economics Research Vol 7, No 11 Business & Economics Research Vol 7, No 11
- National Bank of Ethiopia (2015), *Quarterly Bulletin fourth quarter 2014/2015 fiscal year series*,
Volume 32, PP 36.
- Nath R. and Shrick P. and Parzinger M. (2001). “*Bankers Perspectives on Internet Banking*”, e- Service Journal, Indiana University Press.
- Okoye, Victor. 2013“*E-Banking in Nigerian Banking Industry: Challenges and Prospects*”
International Journal for Management Science and Technology (IJMST) Vol. 1;
Issue 6
ISSN:2320-8848(O.)/2321-0362(P.)
- Organization for Economic Cooperation and Development (OECD, 2001). *Electronic finance: Economics and Institutional Factors*, occasional paper No 2, financial affairs division,
OECD, Paris.
- Rogers, E.M., 1995. *Diffusion of Innovation*. 4th ed. New York: The Free Press.
- Rogers, M 2003, *Diffusion of Innovations*, 5th edition, New York: Free Press.
- Salwani, et al., 2009, *E-commerce usage and business performance in the Malaysian tourism sector: empirical analysis*, Information Management & Computer Security. 17(2):166-185.
- Sathye M. (1999). “Adoption of internet banking by Australian consumers: and empirical Investigation”, International Journal of Bank Marketing, Vol. 17, No. 7, pp. 324-334, MCB University Press.

- Segun, A. (2011) Mobile Banking to Transform Nigeria's Economy, says GT Bank Boss
 thisdaylive[online], Available at:
<http://www.thisdaylive.com/articles/mobilEbanking-to-transform-nigerias-economy-says-gt-bank-boss/105126/> (retrieved: July 10, 2015).
- Sheppard, B.H., Hartwick, J. and Warshaw, P.R., 1988. The Theory of Reasoned Action: A Meta-Analysis of Past Research with Recommendations for Modifications and Future Research. *Journal of Consumer Research [e-journal]* 15 (3), pp. 325-343
- Singh, B. and Malhotra, P. (2004). Adoption of Internet banking: An empirical investigation of Indian banking Sector. *Journal of Internet Banking and Commerce*, 9 (2).
- Sumani Yahiya (2011), Prospects and Challenges Of Electronic Banking in Ghana, A Case Study of SG-SSB Bank Limited, research paper, Nkrumah University of Science and Technology, Accra.
- Thornton, J. & White, L. (2001). *Customer orientations and usage of financial distribution channels*. *Journal of Services Marketing*, Vol. 15 No. 3, pp. 168-85.
- Tornatzky, G & Fleischer, M 1990, *The Process of Technology Innovation*, Lexington, MA, Lexington book.
- Turban, D 2008, *Electronic Commerce: a managerial perspective*, 4th Edition, Prentice Hall.
- United Nations Conference on Trade and Development (UNCTAD) (2004), E-Commerce and Development Report*. New York and Geneva:United Nations.
- Venkatesh, V., Morris, M. G., Davis, G. B., and Davis, F. D. (2003). *User acceptance of Information technology* Toward a unified view. *MIS quarterly*, 425-478

Vaithianathan, S. (2010). *A review of e-commerce literature on India and research agenda for*

future Electronic Commerce Research Journal, 10(1):83-97.

Wondwossen, T and Tsegai, G 2005, `E-payment: challenges and opportunities in Ethiopia`,
Economic commission for Africa, Addis Ababa Ethiopia.

Yang, Y 1997, *The security of electronic banking*, a research paper presented at the national
Formation systems security conference U.S.A

Yin, R 1989, *Case Study Research Design and Methods: Applied Social Research Methods`*
Series, vol. 5, Sage publications.

Ziad Hunaiti, Masa`deh, Mohammed Mansour and Ahmad Al-Nawafleh (2009) *Electronic
Commerce Adoption Barriers in Small and Medium-Sized Enterprises in
Developing Countries: The Case of Libya* IBIMA business review Volume 2, 2009,

APPENDIX

Questioner

Dear Sir/Madam

I am Million Gebru, MBA.Student in St Mary University School of graduate study department of business administration. I am undertaking a research on the topic “Assessment of Factor affecting adaptation of e-banking in wegagen bank south Addis Ababa district” for the partial fulfillment of the requirements of the degree of Master of Art in business administration. The aim of this questionnaire is to assess factor affecting adopting of E-banking in wegagen bank south Addis Ababa district. The results of the study will have a paramount important to the bank, to owners, to clients, and to different stakeholder. To this end, this questionnaire is prepared to gather pertinent information.

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

Yoursfaithfully,

MillionGebru

TelPhone0912887840

Part I. Personal Information

1. Gender: Male [] Female []
2. Age: 18-30 [] 31-40 [] 41-50 [] Above 50 []
3. Educational level:
- v. No formal education []
 - i. Primary []
 - ii. Secondary []
 - iii. Technical and vocational education []
 - iv. University []
 - vi. Others (specify)

4. How many years you have been customer of wegagen bank

Less than 1year [] 1-2years [] 3-5 years [] more than 5 year []

5. What type of business are you engaged in

Not working [] Salaried employed (public) [] Salaried employed (private) []

Self employed (own business < 500,000 birr capital) []

Self employed (own business > 500,000 birr capital) []

Part II Questions regarding challenges of adopting E-banking

Below are lists of questioners relating to Adoption of E-banking? Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from "strongly agree" to "strongly disagree".

Key

SA=strongly agree N= Neutral SD= Strongly Disagree A=Agree D= Disagree

Factors	S.No	1) Please indicate the extent you agree or disagree of the Potential challenges that affect to adoption or development use of E-banking technologies.	SA 1	A 2	N 3	D 4	SD 5
---------	------	---	---------	--------	--------	--------	---------

Compatibility	1.1	E-banking is consistent with my life style					
	1.2	using E-banking fits well with the way I like to manage my finance					
	1.3	Using internet banking go well with my current situation					
Trialability	1.4	E- Banking services is available for me to use on trial basis.					
	1.5	I am able to see how E- banking is work and what it can do.					
	1.6	I know where I can get more information on E-banking.					
Complexity	1.7	I think that learning to use electronic banking services would be easy.					
	1.8	I think that interaction with electronic banking services require a lot of mental effort.					
	1.9	I think it is easy to use electronic banking services to accomplish my banking tasks.					

perceive Riskiness	1.10	Using E-banking increase my cost of banking					
	1.11	E-banking lacks the benefit of personal interaction with bank personnel					
	1.12	E-banking is unreliable.					
	1.13	Using E-banking may expose me to fraud or monetary loss.					
	1.14	Using E-banking may put in danger my privacy					
advant age of	1.15	E-banking is insecure					
	1.16	E- banking makes it easier for customers to do banking activities					

1.17	Customers can easily use ATM and POS					
1.18	E-banking is highly convenient for customers than traditional banking					
1.19	The amount of fee paid by customers for the E-banking is lower than traditional banking					
1.20	E-banking increase information access to customers by providing information any time, real time information on the money in their accounts					
1.21	E-banking such as, Internet banking ,Mobile banking, ATM and POS services are enables users to complete banking activities more quickly and easily					
1.22	E-banking such as, Internet banking ,Mobile banking, ATM and POS are convenient, in terms of 7 days and 24 hours					
1.23	E-banking is more accessible to users than visiting a bank					
1.24	Improve customer service					

Item		Level of agreement				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Adaptation of E-banking		1	2	3	4	5
1	Limitation in network infrastructure and internet related support services					

2	low levels of computer literacy					
3	Limitation in ICT infrastructure					
4	Absence of financial networks that links different banks					
5	Tight foreign currency regulation					
6	Relative high cost of internet					
7	Lack of confidence with the security aspects					
8	Users do not trust the E-banking technology provided by banks					
9	fear of risk to use E-banking technology					
10	Unavailability of competent and skilled employee in related with e banking is the challenge for banks to practice e-banking					