

JIMMA UNIVERSITY

**COLLEGE OF BUSINESS AND ECONOMICS
SCHOOL OF GRADUATE STUDIES
BANKING AND FINANCE DEPARTMENT**

**FACTORS AFFECTING CUSTOMERS ADOPTION OF ELECTRONIC
BANKING SYSTEM IN ETHIOPIAN BANKING INDUSTRY: THE CASE
OF SELECTED COMMERCIAL BANKS IN JIMMA TOWN**

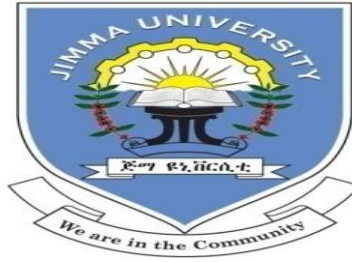
*A Thesis submitted to the school of graduate studies of Jimma University in
partial fulfillment of the Requirements for the Award of the Degree of Masters
of Science in Banking and Finance*

By:

Abdi Hunde

July, 2020

JIMMA, ETHIOPIA



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MASTERS OF SCIENCE IN BANKING AND FINANCE**

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CERTIFICATE

This is to certify that the thesis entitled “Factors Affecting Customers’ Adoption of Electronic Banking System in Ethiopia Banking Industry: The Case of Selected Commercial Banks in Jimma Town” submitted to Jimma University for the award of Masters degree in Banking and Finance, and is a genuine record of the work carried out by Abdi Hunde under our guidance and supervision.

Therefore, we hereby declare that not part of the thesis has been submitted to any other university or institution for award of any degree or diploma.

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Declaration

I hereby declare that this thesis entitled: “Factors Affecting Customers’ Adoption of Electronic Banking System in Ethiopia Banking Industry: The Case of Selected Commercial Banks in Jimma Town” has been carried out by me, Mr. Abdi Hunde, under the guidance and supervision of my advisors: Mr. Tadele Mengesha and Mr. Semere Getahun.

The thesis is my original work and has not been submitted for the award of any degree or diploma to any university or institution.

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Abstract

In Ethiopia, the introduction and usage of information and communication technology system is a recent phenomenon. However, in the past decade, it has rapidly expanded and today most institutions and organizations in Ethiopia have entered into the use of information and communication technology supported delivery system, especially Ethiopian Commercial Banks. E-banking system enables customers to perform banking transaction easily without visiting banking center and to receive banking service beyond the restriction of time and space. However, customer's usage of electronic banking system remains unsatisfactory in Ethiopia due to several factors. The aim of this survey was to investigate factors that affect customers adoption of electronic banking systems in Ethiopian Commercial Banks in case of Jimma town. Self-administered questionnaires were employed to obtain the relevant data from customers of seven commercial banks selected purposively. The participants were selected using simple random sampling technique. Besides, quantitative method was used to analyze the data. Quantitative data were analyzed using a binary logistic regression using SPSS, version 21 and analyzed using statically description. The result of the study showed that key factors such as perceived risk, perceived ease of use, prior knowledge and experience, trust, and awareness of electronic banking are the major factors affecting the adoption of customers e-banking in Ethiopian commercial banking in Jimma town. Socio-demographic factors such as educational level and age were also found significantly affecting the adoption of electronic banking in Jimma town. It is thus recommended that these underlying deficiencies have to be rectified by the banks and have to work closely with potential customers in terms creating awareness over those general factors that tend to influence customers use of e-banking system.

Key Words: E-Banking, Customer Adoption, Banking industry

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List of Abbreviations

A	Awareness
AI	Accesses to Infrastructure
ATM	Automatic Teller Machine
CBE	Commercial Bank of Ethiopia
E-Banking	Electronic Banking
ICT	Information and Communication Technology
NBE	National Bank of Ethiopia
PEU	Perceived Ease of Use
PKE	Prior knowledge and Experience
POS	Point of Sales
PU	Perceived Usefulness
SPSS	Statistical Package for Social Science
T	Trust
TAM	Technology Acceptance Model
TS	Technical Support
TOE	Technology Organizational Environment

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

Over the past three decades the rapid expansion of information and communication technologies (ICT) has created a tremendous impact on all areas of human life all over the world (Schneider 2006). Modern technology has improved remarkably human lives and communication of wide perspectives around the world. Globally, modern technology has evolved and eventually become the major platform for all institutions and organizations. Moreover, information and communication technology revolution has brought a remarkable transformation in retail financial services which have radically altered the way that banking services are delivered with sophisticated system. It has essentially changed the way in which banks provide their services and customers conduct their banking needs. One of these technologies which have increasingly become a favored distribution channel by service providers is electronic banking (e-banking) services (Daraz et al. 2009).

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).

Electronic banking is nothing but E-business in banking industry. It may also be referred as internet banking. Among other working definition of E-banking used in this study, the following are some of the common meanings of the term of E-banking. It often refers to online banking/Internet banking which is the use of the Internet as a remote delivery channel for banking services (Furst & Nolle 2002:5). Another definition of E-banking is that, "E-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 with other financial service provider remotely via a telecommunications network” (Yang 1997:2).

With regards to the e-banking services, 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 2006:11). The internet is transforming the banking and financial industry in terms of the nature of core products/services and the way these are packaged, proposed, delivered and consumed (Sathye, 1999). 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).

In Ethiopia, the introduction of information and communication technology (ICT) system usage is a recent phenomenon (Gardachew, 2010). However, in the past decade, the use of ICT supported system services has grown rapidly in most huge institutions and organizations in Ethiopia. Ethiopian commercial Banks is one. Relatively, Commercial Bank of Ethiopia was the first to introduce ICT supported banking system for its customers in the late 2001, next to Dashen in 2006 and Wegagen Banks in 2010 (Kindie, 2016; Zeleke, 2016). However, nowadays every commercial bank in Ethiopia have adopted and launched E-banking services, such as Card based payment through ATM, Point of Sale (POS) machines, Mobile banking, Internet banking and Agent banking, are among some of E-banking services (Desta 2018).

Technological innovations in banking industry play a more crucial role in developing one county’s economy and in satisfying the growing need of potential customers. Electronic banking system enables customers to perform banking transaction easily without vising banking center and to receive banking service beyond the restriction of time and space (Ayrga 2011; Tan and Teo 2000). Indeed, the appearance of electronic banking in Ethiopia has promoted many banks to develop business ventures and it can be taken as a promising start that encourage further E-banking adoption in the country. However, the effectiveness of

E-banking mainly depends on the customers contentment to utilize the system (Zhao et al. 2008). Therefore, it is deemed necessary to understand the barriers and drivers that impact E-banking adoption among customers. This is mainly because having a deep and profound understanding about those factors that influence the full adoption of E-banking and its benefits would contribute to promote the growth of E-banking in the country. However, current trends indicate that customer's acceptance and usage of electronic banking system remains unsatisfactory in Ethiopian banking sector due to several factors (Gardachew, 2010; Bultum, 2014).

Previous studies in Ethiopia for instance Ayana (2012); Atnkut (2018); Meseret (2017) and Wossenyelsh (2018) demonstrated 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, perceived ease of use and perceived usefulness. Besides, they also revealed that lack of ICT infrastructure and lack of government support were significant drivers that affect the adoption of electronic banking. On the other hand, Atnkut also found out demographic factors such as gender, age and education level are determining factors affecting the adoption of electronic banking. In addition, the findings of the subsequent studies revealed that customers reservation regarding the security of E-banking and the risk of losing their money because of technology fraud. For instance, Gardachew (2010); Bultum (2014); Meaza (2013) noted that most customers have no trust and are reluctant to rely on electronic banking because of threats associated with it. Specifically, Gardachew (2010) analyzed the status and challenges of electronic banking in Ethiopia and identified 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. However, the previous researches emphasized only on certain factors which can be considered as a gap. Therefore, it is deemed necessary in this study to include other factors such as awareness of e-banking, prior knowledge and experience, infrastructure, and so-on in order to find out E-banking adoption problem in Ethiopia among the banking customers by investigating factors affecting the adoption of E-banking services in commercial banks in Jimma town.

1.2. Statement of the Problem

Electronic banking system has been used in Ethiopia apparently since the last decade, starting from the late 2001 when the largest state owned, commercial bank of Ethiopia (CBE) introduced ATM to deliver service to the local users (Gardachew 2010). However, customer's acceptance and utilization of E-banking is low in Ethiopian banking sectors due to various barriers that prohibited its full adoption. It can be noted that not adopting the E-banking system fully and effectively has resulted in forfeiture of various benefits the banks and the country would have relished.

According to the findings of studies conducted on such matter in Ethiopia, the number of E-banking users and the enjoyment of benefits from its delivery are low in some degree due to several reasons (Gardachew, 2010); (Bultum, 2014); & (Meaza, 2013). For one thing, it was the first time that Ethiopian banking sector applied the modern E-banking methods such as ATM, Debit and Credit cards, Tele, Internet and Mobile banking. Among other E-banking benefits in delivering the service that customers could have enjoyed, the following are not recognized: withdrawing cash, transferring funds, and paying bills, or obtaining commercial information and advices (Ayana, 2012).

Notable studies conducted in Ethiopia that examined the adoption, practice, barriers and prospects of E-banking technology are limited in number. To state some, studies conducted by Bruk (2018), Ayana (2012), Abiy & Lemma (2012), and Balcha (2012) justified that fear of security threats and poor implementation of security of information system in the country are the major reason for underdeveloped E-banking system in Ethiopia. Additionally, the findings of the subsequent studies revealed that customers have reservation regarding the security of E-banking due to the risk of losing their money because of technology fraud. For instance, Gardachew (2010); Bultum (2014); Meaza (2013) noted that most customers have no trust and reluctant to rely on electronic banking because of threats associated with it. Specifically, Gardachew (2010) analyzed the status and challenges of electronic banking in Ethiopia identified 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.

Study findings of Atnkut (2018); Meseret (2017), and Wossenyelsh (2018) asserts that problems of E-banking adoption in Ethiopia is mainly related with lack of trust by customers, customers' lack of awareness about the usage of internet banking, lack of reliable technology and ICT infrastructure and frequent power disruption.

However, these studies did not consider the fact of the matter at regional level where the challenges of adopting E-banking are presumably worse due to low literacy level, poor technological and ICT infrastructural facilities, and low internet coverage. This study is different from the previous studies which are conducted at a country level having the generalization not the representation of all facts at regional level. As far as the knowledge of the current researcher is concerned, not much research has been done including other variables such as awareness of e-banking, prior knowledge and experience and the extent at which customers demography affect the adoption of e-banking services.

Making sense of these facts into consideration, this study would like to assess determining factors that prevent customers from adopting E-banking services at commercial banks located in Jimma town. It is also deemed necessary to conduct this research to investigate the case in detail and to find out other factors in order to come up with more justifications that actually inhibit consumers from adapting e-banking service and to restore the maximum benefit they can get from using the system. Likewise, in order for banks to rip the fruit of e-banking system, it is necessary to examine the contributing factors that inhibit customers to adopt and fully utilize the service on a regular basis.

Hence, the current study is noteworthy for the reason that most of the research studies previously conducted in Ethiopia exclusively focus on the capital city of the country, except few, as the current study focusses on Jimma Town. Furthermore, current study is different from other studies conducted in Ethiopia in the past because it predominantly emphasizes on customers related factors that potentially affect e-banking service in the Ethiopian context of commercial banking industry. It also makes effort to combine views of both users and non-users of e-banking services to understand the situation in-depth and breadth. As a result, this research study is quite different from other studies in the past on the bases of its scope, study area, and focus.

1.3. Objective of the study

The study has the following general and specific objectives.

1.3.1. General Objective

The general objective of this study is to find out factors affecting customers adoption of E-banking system in selected commercial banks located in Jimma town.

1.3.2. Specific Objectives

The specific objectives of the study are:

1. To assess the practice of e-banking service in Ethiopian banking industry.
2. To identify the effect of perceived risks on adoption of electronic banking system.
3. To investigate the prior knowledge and experience of electronic banking on the adoption electronic banking.
4. To find out the effect perceived ease of use on the adoption of electronic banking.
5. To assess the influence of demography characteristics towards the adoption of electronic banking.

1.4. Research Hypotheses

The research hypotheses are the following:

H1: Perceived risks have an effect on adoption of electronic banking services.

H2: Prior knowledge and experience have an effect on customer adoption of electronic banking service.

H3: Perceived ease of use has an effect on the adoption of electronic banking.

H4: Gender has an effect on the adoption of electronic banking by customers.

H5: Age has an effect on the adoption of electronic banking by customers.

H6: Religion has an effect on the adoption of electronic banking by customers.

H7: Education has an effect on the adoption of electronic banking by customers.

H8: Income has an effect on the adoption of electronic banking by customers.

1.5. Scope of the study

This research is limited to commercial banks located in Jimma due to financial and time constraints. Besides, the subject matter of this study is delimited to assess major factors that inhibit customer's adoption of E-banking system in the seven selected commercial banks in Jimma: Commercial Bank of Ethiopia, Cooperative Bank of Oromia, United Bank, Bank of Abyssinia, Awash Bank, Dashen Bank and Wogagen Bank. More specifically, the scope of this study focus on the following E-banking system matters such as the effect of security risk on adoption of e-banking system based on factors perceived security risks, the impact prior knowledge and experience on adoption of electronic banking; the effect of perceived ease of use available on the adoption of electronic banking; and the influence of demography characteristics towards the adoption of electronic banking.

1.6. Significance of the study

The findings of this study would have great importance for different stakeholders such as banking sectors, for government policy makers and researchers.

- For National Bank of Ethiopia, since such investigation has policy implication, the finding of this study may be used as a directive input in developing regulatory standards regarding E-banking services of commercial banks in Ethiopia.
- In addition, this study would initiate the commercial Bank managements to give due emphasis on the management of these identified variables and provides them with understanding of activities that will enhance their E-banking services. This is due to the fact that knowing determining factors that influence the adoption of E-banking will help the bank manager to concentrate on the quality of E-banking services rather than its quantity. Thus, this study would make the management body to visualize the determinants of E-banking services.
- The study would also have a lot of importance to the existing literature by providing evidence on the factors inhibiting the adoption of E-banking in Jimma town. In addition, the study would be useful for policy makers and bank managers to develop a framework for assessing electronic banking service.
- Finally, the study can be used as a foundation for other researchers who would like to undertake research on similar and/or related area of study.

CHAPTER TWO

LITRETURE REVIEW

2.1. Concepts of Electronic Banking

E-banking is the abbreviation of Electronic Banking. The term electronic banking can be described in many ways. In a very simple form, it can mean the provision of information or services by a bank to its customers, via a computer, television, telephone, or mobile phone and it is a high-order construct, which consists of several distribution channels. It should be noted that electronic banking is a bigger platform than just banking via the Internet (Daniel, 1999). This implies it is the transactions that take place through electric system like web. Due to the introduction of technology many banking sector use e-banking for the purpose of information source as well as transaction, as the results e-Banking users can perform many banking transactions like balance inquiry, paying of bill, checks writing transfer of funds from one account to another (Mian and Rizwan, 2013).

E-Banking provides facility to their customers and to fulfill customer's expectation about this service. Electronic banking systems provided easy access to banking services. The interaction between user and bank has been substantially improved by deploying ATMs, Internet banking, and more recently, mobile banking (Claessens et al. 2002).

Electronic banking (E-banking) reduces the transaction costs of banking for both Small and Medium Enterprises (SMEs) and banks. SMEs need not visit banks for banking transactions, providing round the clock services (Cheng, 2006). Customers prefers e-banking for conveniences, speed, round the clock services and access to the account from any parts of the world (Cheng, 2006). E-banking offers benefits to banks as well. Banks can benefit from lower transaction costs as E-banking requires less paper work, less staffs and physical branches (Cheng, 2006). E-banking leads to higher level of customers' satisfaction and retention (Poatoglu & Ekin, 2001).

2.2. Definition of E-Banking

Banks have used electronic channels to do banking operations with both domestic and international customers. Currently, banks are mostly using electronic channels to receive

instructions and deliver their products and services to their customers. Although the range of services provided by banks over the electronic channel vary widely in content, this form of banking is generally referred to as electronic banking (Azouzi, (2009); Aladwani, (2001); Jayawardhena & Foley, (2000) defined E-banking services as a benefit to banks and customers. For banks, electronic banking is conceded a strategy weapon; it helps them to achieve competitive advantage and increase their market share. Furthermore, using electronic services can save the cost of resources which are needed for traditional banking services. From the customers' point of view, found that E-banking provides faster, easier and more reliable services to customers. However, customers are still hesitant to use E-banking services, because they are concerned with security issues, and they may do not have sufficient ability to deal with the applications of electronic banking (Ayriga, 2011).

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). Different forms of E-banking system were discussed as follows.

1. **Automated Teller Machines (ATM):** It is an electronic terminal which gives consumers the opportunity to get banking service at almost any time. To withdraw cash, make deposits or transfer funds between accounts, a consumer needs an ATM card and a personal identification number (PIN).
2. **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).
3. **Internet/extranet banking:** It is an electronic home banking system using web technology in which Bank customers are able to conduct their business transactions with the bank through personal computers.

4. **Mobile banking:** Mobile banking is a service that enables customers to conduct some banking services such as account inquiry and funds transfer, by using of short text message (SMS).

2.3. The Evolution of E-Banking System

Since the late 1990s E-Banking has developed from virtual insignificance to tens of millions of users worldwide (OECD, 2001). However, E-Banking is the product of different generations of electronic transactions. The current web-based internet is the latest of several generations of systems: Automated Teller 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.

Electronic innovation in banking industry can be traced back to 1970, when the computerization of financial institutions gained momentum (Malak, 2007), however; a visible presence of this was evident to the customers since 1980, with the introduction of ATM. Innovative banking has grown since then, aided by technological developments in the telecommunications and information technology industry. The early decade of the 1990s witnessed the emergence of automated voice response (AVR) technology. By using the AVR Technology, banks could offer telephone banking facilities for financial services. With further advancements in technology, banks were able to offer services, through PC owned and operated by costumers at their convenience, through the use of intranet propriety software.

The users of these services were, however, mainly corporate customers rather than retail ones (Sohail & shanmugham, 2003). The security first network bank was the first Internet banking in the world that was built in 1995 in USA. After that some famous banks introduced their internet banking one after another such as Citibank and Bank of America.

2.4. E-banking System in Ethiopian Banking Industry

The appearance of E-banking in Ethiopia goes back to the late 2002, when CBE introduced electronic payment service in the country by launching proprietary ATM system in 2002

(Meseret 2018). Following the introduction of ATM in commercial bank of Ethiopia, Dashen Bank started to use ATM machine in the year 2006 with its ATMs that provide service for local Dashen Visa-Card holders and international Visa-Cardholders coming to Ethiopia. United Bank S.C is the first to introduce tele - banking - including text messages or SMS by the end of 2008. Currently, United Bank started to deliver E-banking services like ATM, internet, mobile and agent banking. (United Bank SC web report, 2015)

According to Wegagen Bank SC web report (2015), Wegagen Bank is introducing a Core Banking System as of July 2000 that helps to connect its Head Office & all branches through network. Through its versatile ISO Standard Core Banking System, the Bank is now delivering more efficient services to its customers. The system has also enabled the Bank to provide technology-based banking services such as Card payment services (through ATM & POS), internet banking as well as mobile banking services. (Wegagen Bank SC web report, 2015)

On the other hand, Zemen Bank has launched prepaid bank cards which can be used without opening a deposit account at the bank. The cards will have preloaded funds, which can be withdrawn from ATMs or used to make purchases from POS terminal. The prepaid cards will be given to the cardholders with a PIN to withdraw the cash. The prepaid cards can be used as gift cards or employee salary or expense cards, which can avoid the need to carry around a large amount of cash. The cards can be preloaded with a minimum of 100 Br. And a maximum of 50,000.00 Br. and reloaded after the previous funds have been fully utilized. The bank will take a commission each time a card is loaded (Fortune, 2012). Currently, there are only a few agreements in place to share ATM resources. The first was the Premium Switch Solutions (PSS), which was established by three banks in 2009 namely Awash International Bank S.C., Nib International Bank S.C and United Bank S.C., with a capital of 165 million Br, and now has six member banks, including Awash International Bank S.C., United Bank S.C., Nib International Bank S.C., Berhan International Bank S.C., Addis International Bank S.C and the Cooperative Bank of Oromia S.C. It is the first certified Third Party Payment Processor by the regulatory party, National Bank of Ethiopia and starts its operations in July, 2012. Moreover, PSS has made its system certified by VISA, Master Card and Union pay. Hence, members connected to PSS network can issue and acquire cards with

these brands. Per the plan of PSS, 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 (Ayana,2012).

2.5. Adoption of E-Banking

Adoption is the acceptance and continued use of a product, service or idea. According to Rogers and Shoemaker (1971), consumers go through “a process of knowledge, persuasion, decision, implementation and confirmation” before they are ready to adopt a product or service. So the stages through which a technological innovation passes are:

1. Knowledge
2. Persuasion
3. Decision
4. Implementation
5. Confirmation

A potential adopter passes through certain stages before decision is made on whether to adopt or reject an innovation. Rogers has been one of the number of researchers who has focused upon

the adoption process, which he defines as the “the process through which an individual or other decision-maker unit passes from first knowledge of an innovation, to forming an attitude toward the innovation to a decision or rejection to implementation of the new idea, and to confirmation of this decision” (Frambach, 1993).

The innovation adoption process defined by Rogers is the process through which an individual or other decision making unit passes from knowledge of an innovation, to forming an attitude towards the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision. There are five stages in innovation decision process. These are:

1. **Knowledge:** Socio-economic characteristics, Personality variables and communication behavior all relate to innovativeness. Innovativeness is the degree to which an individual or other adoption unit is relatively early in adopting new ideas compared to other members of a system (Rogers, 1995). According to Rogers early adopters have more formal education than later adopters and are more likely to be (socio-economic characteristics).

2. **Persuasion:** The potential adopter's attitude towards the innovation is formed in this stage. By anticipating and predicting future use satisfaction and risk of adoption, the potential adopter develops positive or negative attitudes to the innovation, which play important role of modifying the final decision. Perceived attitudes of an innovation as its relative advantage, compatibility and complexity are especially important here (Rogers, 1995).

3. **Decision:** The decision stage occurs when an individual engages in activities that lead to adoption or rejection of the innovation. In this stage the adopter starts to actively seek out information about the innovation that assists the decision making.

4. **Implementation stage:** In this stage, mental information processing and decision making come to an end, but the behavioral change begins.

5. **Confirmation stage:** After the adoption of innovations, the adopter keeps evaluating the results of his / her decision. If the level of satisfaction is significant enough, the use of innovation will continue; however, it is also possible that the rejection occurs after adoption.

In the latter case, the reverse of previous decision is called "discontinuance". The time frames for adopting an innovation can be compressed or fairly lengthy. For example, awareness of an innovation may precede the decision to adopt by months or years. So, we can briefly define adoption: Adoption is the acceptance and continued use of a product, service or idea. According to Rogers and Shoemaker (1971), consumers go through "a process of knowledge, persuasion, decision and confirmation" before they are ready to adopt a product or service.

Many researchers have been used different frame works in the study of adopting new technological innovation. Among frameworks that have been developed based on the past

studies includes, the Technology-Organization-Environment framework (TOE) (Tornatzky & Fleischer, 1990), which identifies three basic Factors for the adoption of technological innovation, i.e., technological factors, organizational and environmental factors. Technology Acceptance Model (TAM) (Davis, 1989), which posit the two sets of beliefs, i.e. perceived ease of use (PEOU) and perceived usefulness (PU) to determine individual's acceptance of a technology. PEOU refers to the degree to which an individual believes that using a particular system would be free of physical and mental effort, PU on the other hand is related to users (Alsabbagh & Molla, 2004).

2.5.1 Technology- Organization- Environment Framework

TOE framework was proposed 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, & 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 Rogers' diffusion of innovation (Rogers 2003), Which include relative advantages (perceived benefits), and relative disadvantages (perceived risks). While the organizational factor refers to the organization's characteristics that influence its ability to adopt and use of E-banking system. The environmental factor refers to the external environment in which an organization operates and its condition for supporting the development of E-banking services. For each context, various factors have been identified from the literature but only those that are considered relevant for E-banking adoption are included in the framework. Details of factors considered in this study are discussed below.

2.5.1.1 Technological Factors

Different researchers described technological factors differently Hart O. et al, (2012) for example explained that adoption depends on the pool of technologies both inside and outside

the firm as well as the application's perceived relative advantage (gains), complexity (learning curve), compatibility (both technical and organizational), observability (visibility/imagination), trial ability (pilot test/experimentation). Salwani (2009) also explained technology competence covering the existing technology infrastructure and skills that enables to utilize the technology. Tornatzky and Fleischer (1990) considered characteristics of technologies and availability while Kvin Z. et al. (2004) described technological context as both external and internal technologies relevant to a firm, which includes existing technologies inside the firm as well as in the market.

2.5.1.2. Organizational factors

Organizational factor captures firm's business scope, organizational culture, top management support, complexity of organizational structure measured in terms of centralization, vertical differentiation, and formalization, the quality of human resource, and size related issues such as specialization and internal slack resources (Jeyaraj A. Et al, 2006). Iacovou (1995) and Grover (1993) also argued that organizations influenced by a number of factors, like firm size, top management support and financial and human resources in their preference to adopt technological innovation. As per Kvin Z. et al. (2004) and Tornatzky and Fleisher (1990) it is defined in terms of several descriptive measures: firm size and scope; the formalization, centralization and complexity of its managerial structure; the quality of its human resources and the amount of internally available slack resources.

2.5.1.3. Environmental factors

Environmental factors mainly relate to different facilitating and inhibiting factors in areas of operations (Al-Qirim, 2006). The area in which a firm conduct its business in adopting technological innovations; its industry, competitors, access to resources supplied by other externals and dealings with government are claimed to be covered under environmental contexts (Kvin Z. et al. 2004).

2.5.1.4. Demographic characteristics

Demography is the study of human population statistics, including age, sex, race, location, occupation, income, education, and other characteristics. Each of these characteristics influences the nature of consumer needs and wants; ability to buy products; the perceived

importance of various attributes or choice criteria used to evaluate alternative brands; and attitudes towards and preference for different products (Loudon and DellaBitta, 1993).

Marketers often segment markets on the basis of demographic information because it is widely available and often relates to consumers buying and consuming behavior. Only with a clear understanding of major consumer characteristics can the implications of environmental and individual determinants of consumer behavior begin to be appreciated (Du Plessis and Rousseau, 1999). Age, education level, income and occupation are the most influential demographic variables affecting Internet usage. Typical internet banking users tend to be well educated, relatively young and are high income earners. It has been widely recognized that demographic factors have a great impact on consumer attitudes and behavior towards internet banking (Karjaluoto, 2002). The consumer demographic factors relevant to this study are therefore age, education level, income and occupation. These are discussed in the following sections.

- **Age**

The goods and services people buy varies during the different stages of their lives. For example, the kind of food that appeals to youths is unlikely to be the choice of adults. Furthermore, people's taste in clothes, furniture and recreation are also age related (Kotler, 2000). People in different age groups often share distinctive values, meanings, and behaviors. Karjaluoto, et al. (2002) show that age has an impact on the use of internet banking. Therefore, this study undertakes to determine whether age has an impact on consumer acceptance of internet banking.

- **Education level**

Education level is defined as a means by which access to a particular occupation is granted (Kotler & Armstrong, 2000). According to Polatoglu and Ekin (2001) affluent and highly educated groups generally accept changes more readily, making them the most likely group of consumers to adopt E-banking.

- **Income**

Income has a major effect in the adoption of internet banking (Karjaluoto, 2002). Internet banking users had much higher incomes than non-users did.

- **Occupation**

Marketers try to identify the occupational groups that have above-average interest in their products and services. A company can even specialize their products for certain occupational groups (Kotler, 2000). Demographic variables are often used as a basis to describe different types of consumers. Karjaluoto (2002) relates this to internet banking occupation has an impact on the adoption of electronic banking.

2.6. Benefits of adopting E-banking system

It is essential for the banks to have the official bank website providing the possibility to do transactions so that banks can be qualified as providing the online banking services (Pikkarainen et al., 2004). According to Giglio (2002) and Robinson (2000) in delivering banking products the cheapest way can be done only through the Online Banking. According to Karjaluoto et al. (2002) with the help of online banking services, the branch networks of banks have reduced and also the staff for working in banks and customers are satisfied to use the online banking services as it will save a lot of time and effort to go to branch of bank and perform these transactions. So the main reason behind accepting the E-banking system is that the service is the time and cost saving and freedom from the place (Polatoglu and Ekin 2001).

Business organizations are trying to uncover the new technologies coming from the E-commerce applications which has a lower transaction cost resulted to eliminate association in distributing channels (Salman & Kashif, 2010). The cost can be reduced to zero in some services like information and manufactured goods information. Transaction of low cost and easiness provides to adopt the new trend of technology to trade information among different groups and business parties. Information and Communication technology adoption transformed business to go from local and global. However, it has been said that E-banking is vital in the banking sector of developing countries (Polatoglu & Ekin, 2001).

The online payment system is quite new in banking institutions and dispersion of these innovations can result in more competent online banking systems which resulted in lots of changes in the technologies of the banking sector. Polatoglu & Ekin (2001) argued that early adopters and heavy users of E-banking services were more satisfied with the services

compared to the other customer groups. According to Joseph and Stone (2003), the ability of delivering services via technology appears to be correlated with high satisfaction with services deemed most important to customers.

Furthermore, Joseph & Stone (2003) emphasized that human and technology-based delivery channels were greatly linked with the customers' perceptions of how these bank services were delivered to them and pointed out that these perceptual outcomes would affect the level of bank customer satisfaction, retention, and switching. Before the shift of technology, customers were facing a lot of problems like handling a lot of money and transferring of that money, submission of utility bills and waiting in a long queue as there was no online transferring facility, and there was no information about new services offered by banks and mostly deposit holders were unaware of how to get benefits from bank products and services like bank loans, credit cards, ATM cards etc.

2.6.1 Benefit of E-Banking for Banks

It should be noted that e-banking can bring about various benefits for banks and their customers as well. It is obvious that cost savings, efficiency, gaining new segments of customers, improvement of the banks reputation and better customer services and satisfaction are primary benefits to banks (Jayawardhena & Foley, 2000). In addition, Jayawardhena & Foley (2000) noted that setting up a specialized E-banking infrastructure costs about US \$1 to \$2 million, which is much lower than setting up a banking branch. In addition, the authors conclude that costs for running a traditional bank account for 50% to 60% of its revenues.

Under the view of Robinson (2000), relevant costs for conducting a banking transaction via online are much lower than via a brick and mortar branch. Moreover, Sheshunoff (2000) contends that one of the most important factors influencing the adoption of E-banking by banks is the need to build up strong barriers to customer exiting. Under the view of the author, once customers become familiar with the utilization of full service E-banking, it is unlikely that they will change to another financial institution. Such an argument can be supported by the consumer behavior theory that switching costs are often very high in terms of time and efforts by consumers. Finally, the author emphasizes that the implementation of

E-banking can bring about many competitive advantages for banks in today's highly competitive banking market.

A research on E-banking has been carried out in Denmark by Mol's (1998). The author argues that E-banking can play an important role in enhancing cross-selling and price differentiation. Banking can make favorable conditions for banks to provide customers numerous services 24 hours a day and 7 days a week. e-banking can improve customer satisfaction with the bank due to the fact that it makes customers less price sensitive, and improve their intention to repurchase, and more loyalty to the bank via providing more positive words of mouth about the bank than other bank customers.

2.6.2. Benefit of E-Banking for Customers

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

However, some people believe that prices appear to be one factor that is impedimental to the 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 customers 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 (Mol's, 1998). It is contended

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

2.7. Major Factors Influencing Customers to Adopt E-Banking System

This study examines factors that influence customers in their adoption of electronic banking based on empirical review. The following eight factors discussed based on different research frameworks, reviews and objectives of the research: perceived risk, perceived ease of use, prior e-banking knowledge, ICT infrastructure, security perception, perceived usefulness, awareness, and information about e- banking.

Perceived Risk

Perceived risk in the field of e-banking can be defined as the potential for loss in the pursuit of a desired outcome of using e-banking services (Featherman & Pavlou, 2002). This study considers individuals' subjective feelings of certainty and degree of trust in the consequences of using E banking services. Several researchers have added perceived risk to the set of factors important to adoption (Aldas-Manzano et al., 2009; Chong et al., 2010; Howcroft et al., 2002; Poon, 2008; Sathye, 1999). Howcroft et al. (2002) have found security concerns to be the major factor discouraging the adoption of electronic banking services. Studies have also identified lack of trust as one of the main impediments to customers' usage of online financial application (Flavian et al., 2006).

Perceived Easy of Used

Perceived ease of use in this study is the extent to which the individual believes that using E banking services would be free of effort. The quality, effectiveness and success of a system can only be validated by the level which its users accept it through its ability to satisfy their needs (Pikkarainen et al., 2004). Prior studies have found positive relationship between perceived ease of use and adoption of e-banking (Amin et al., 2008; Pikkarainen et al., 2004; Poon, 2008). However, in consideration of technology advancement in E banking service, trainings for better know how of the service and existing manpower skill is necessary.

Prior E-banking Knowledge and Experience

Another factor that influences the consumer adoption of e-banking is the prior experience of technologies, especially prior experience of computers. Thus, consumer's familiarity with technologies in general facilitates her appreciation of the potential added value which is inherent in a technology. The prior computer experience is associated with use of use of PC, the Internet and e-mail. Karjaluoto et al. (2002) showed that prior experience with computers and technologies and attitudes towards computers influence both attitudes towards online banking and actual behaviors.

ICT Infrastructure

ICT infrastructure is a major factor that supports the adoption of e-banking system as the case for other initiatives. Without an adequate development and quality of ICT infrastructure, e-banking adoption and use cannot do well (Efendioghu 2004 & Scupola 2003).

Security Perception

Security is one of the very important factors in determining the decision of consumers to use electronic banking. According to Polatoglu and Ekin, (2001), security comprises of three dimensions: reliability, safety, and privacy. Consumers' concerns about security, which arise from the use of an open public network, have been emphasized as being the most important factor inhibiting the adoption and use of internet banking (Sathye, 1999; Daniel, 1999; Hamlet and Strube, 2000; Tan and Teo, 2000; Cox and Dale, 2001, Polatoglu and Ekin, 2001, Black et al., 2002, Giglio, 2002; Howcroft et al.,).

Perceived Usefulness

It is defined as a prospective user's subjective probability that using an e-banking service will enhance his or her job or life performance. It is an impact on attitude of the possibility of adopting e-banking service. This attitude influences the behavior of the customer actually to adopt the service (Davis et al., 1989).

Awareness of E-banking

Adoption can be defined as the acceptance and continued use of a product, service or an idea. According to Rogers and Shoemaker (1971), consumers go through “a series of process in knowledge, conviction, decision and confirmation” before they are ready to adopt a new product or service. Hence, for adoption of Electronic banking in Nigeria, it is necessary that the commercial banks offering this service make the customers aware about the availability of such a product and explain how it adds value relative to other products of its own or that of the competitors. The added value in electronic banking, according to Trethowan and Silicone, (1999), was convenience, sales orientation and lower costs. Consumers’ level of awareness of e- banking influences the adoption of e-banking.

Information About E-Banking

The important factor that consumers consider before adopting is the amount of information they have about electronic banking. In this context, Sathye (1999) has identified it as a major factor impacting the adoption. According to Sathye (1999), while the use of electronic banking services is fairly new experience to many people, low awareness of electronic banking is a major factor in causing people not to adopt internet banking. Sathye (1999), found that consumers were unaware about the possibilities, advantages/disadvantages involved with internet banking. Guiltinanand Donnelly (1983) identify "information about the benefits of using a product/service" as an essential service/product promotion strategy.

Hence, for adoption of electronic banking, it is necessary that the banks offering this service make the consumers aware about the availability of such a product and explain how it adds value relative to other products of its own or that of the competitors. For example, marketing efforts, Radio and TV advertisements, Website, branches and other promotional tools suggests that marketing communications will have a positive effect on consumer adoption of online banking.

2.8. Empirical review of the study

Among other empirical studies conducted on the matter are the following. For instance, Pikkarainen et al. (2004) studied on consumer acceptance of online banking: an extension of

the technology acceptance model and found strong relationship between perceived ease of use and electronic banking adoption in their studies and they show positive relationship between perceived ease of use and adoption of e-banking. In addition, Pikkarainen et al. (2004) also found security and privacy to have relatively weak relationship with adoption in Finland.

Likewise, Howcroft (2002) also identified concerns over risk and fears over the likelihood of errors as the most important discouraging factors for consumers' adoption of telephone and internet banking on his research of consumer attitude and the usage and adoption of home-based banking in the United Kingdom. Polatoglu & Ekin (2001) conducted a research on an empirical investigation of Turkish consumer acceptance of internet banking and mention reliability as the prime factor in their finding for the adoption of new technological innovations, reliability consists of security and privacy in Internet Banking transactions.

Another empirical investigation conducted by Sathye (1999) focused on the adoption of Internet banking by Australian consumers also identified, information about electronic banking is a key factor in adoption of electronic banking and the use of electronic banking services is fairly new experience to many people, low awareness of electronic banking is a major factor in causing people not to adopt internet banking. Sathye (*ibid*), found that consumers were unaware about the possibilities, advantages/disadvantages involved with internet banking.

With regards to the challenges and opportunities of e-payment in Ethiopia, Wondwossen & Tsegai (2005) studied on the challenges and opportunities of e-payments in Ethiopia focusing on the objective of e-payment practices in developing countries, Africa and Ethiopia. The authors found that, the main obstacles to the development of e-payments are lack of customers trust in the initiatives, unavailability of payment laws and regulations particularly for e-payment, lack of skilled manpower and frequent power disruption.

Furthermore, Gardachew (2010) conducted research on the opportunities and challenges of E-banking in Ethiopia. The aim of his study was focused on analyzing the status of electronic banking in Ethiopia and investigates the main challenges and opportunities of implementing E-banking system. The author conducted a survey on the existing operating style of banks

and identifies some challenges of using E-banking system, such as, lack of suitable legal and regulatory frame works for E-commerce and E- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks. According to Gardachew (*ibid*), the 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.

Moreover, Ayana (2012) explored in his study on “Adoption of Electronic banking system in Ethiopian Banking industry: Barriers and Drivers” that E-banking system, such as ATM, mobile banking, internet banking and others were not well adopted by Ethiopian banking industry. This is due to low level of ICT infrastructure and lack of legal frame work at NBE, which can initiate banking industry to implement the system. In addition to the above two basic factors affecting adoption of E banking in Ethiopia, result of the study also shows that security risk and lack of trust on the use of technological adoption are other major barriers for the system. The level of security risk associated with E-banking product or service, such as ATM, internet banking, mobile banking and others, pose different challenges to different banks. Improvements are required to ensure client confidence. Lack of competition among local and foreign banks is also another challenge for the adoption of E-banking in the country. Technical and managerial skills available in Ethiopian banks for the adoption of E-banking are also limited.

Lastly, Yitabarek and Zeleke (2013) conducted research to analyze factors that influence customers’ intention to adopt e-banking service channels in Bahir Dar city. The study used variables from Theory of Planned Behavior and Technology Acceptance Model. The findings revealed that attitude; subjective norm, perceived behavioral control, perceived usefulness and perceived ease of use and perceived risk were significant in affecting users’ intention to use e-banking service channels.

2.9. Conceptual Framework

In order to achieve the research objectives, the researcher has adopted a conceptual framework developed by Tornatzky and Fleischer (1999) with few modifications based on the specific context. The conceptual framework below thus depicts the dependent and independent variables and the relationship among them. The independent variables include perceived risks, prior knowledge and experience, perceived ease of use, awareness of e-banking, and sociodemographic factors, whereas the adoption of e-banking is the dependent variable.

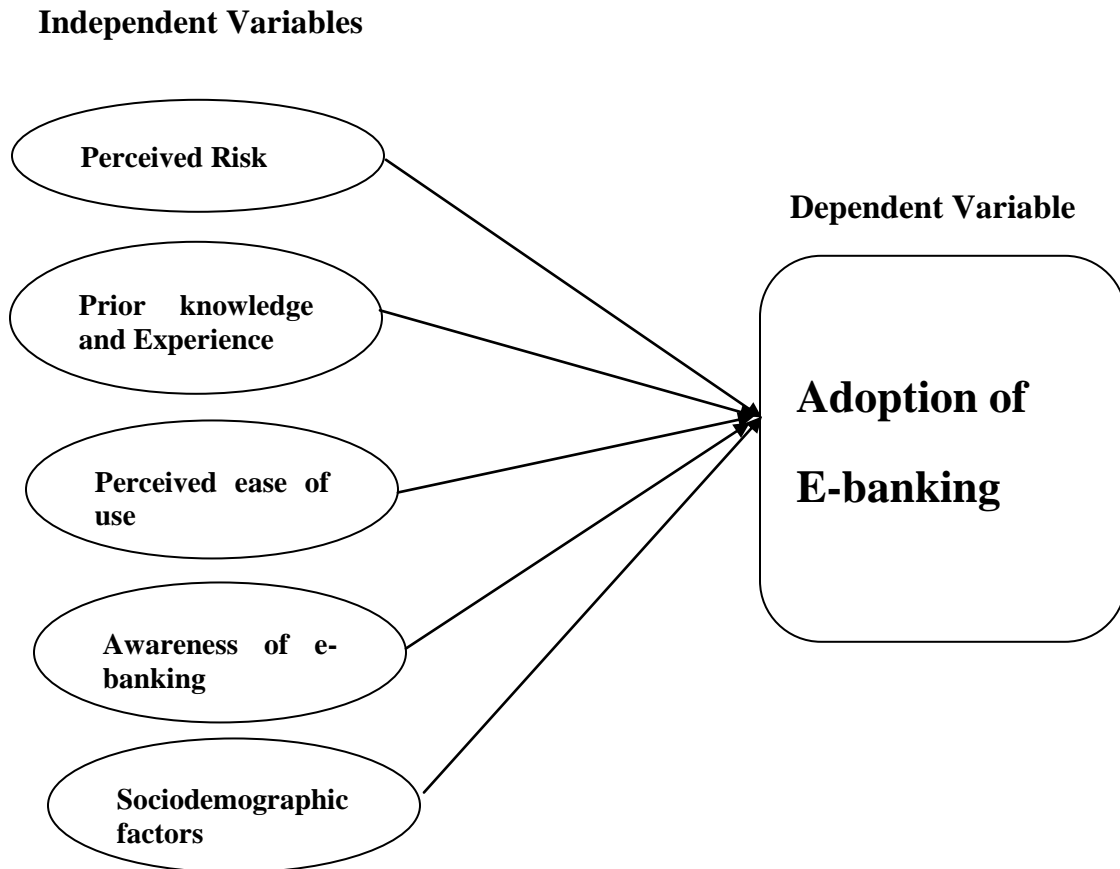


Diagram 1: Conceptual framework of the study developed by the researcher

CHAPTER THREE

METHODOLOGY

3.1. Introduction

This section of the research discusses the detail methodology by which the researcher used to conduct the study. Thus, it includes the research design, approach, study area, target population, sampling design, source of data collection, data collection instruments, and method of data analysis and presentation.

3.2. Research Design

The researcher developed an explanatory research design in order to effectively address the research objectives. Because explanatory research designs best serve a research purposes that aim to study the characteristics, opinions and attitudes of a population in relation to a particular issue and to test hypotheses. Besides, survey method was used to obtain the necessary data concerning factors affecting customers adoption of electronic banking.

3.3. Research Approach

In order to answer the study's research question, quantitative research method was employed. Quantitative approach was used because the study involves the generation of data in quantitative or numerical form which can be subjected to rigorous quantitative analysis using statistical description. Inferential study design is also used to determine how the independent variables explain the dependent variables of the study.

3.4. Target Population

The target population of this study is all customers of commercial banks i.e., both users and non-users of e-banking, in Jimma town, and the study population were customers of commercial banks of Jimma town, district branches. These are Commercial Bank of Ethiopia, Cooperative Bank of Oromia, United Bank, Bank of Abisinia, Awash Bank, Dashen Bank and Wogagen Bank.

3.5. Source and Type of Data

The researcher uses primary data that were collected from customers of commercial banks that have district office in Jimma town using self-administered questionnaire. As per the objective of the study, quantitative data were collected from the customers through close-ended questions.

3.6. Sample Size Determination and Sampling Technique

3.6.1. Sample Size

From commercial banks found in southwestern Ethiopia, seven banks only have district office in Jimma town. The researcher thus selected all the seven commercial banks considered to have opened district office in Jimma using purposive sampling technique. The purpose considered for this research was banks which own a district office in Jimma town. The researcher selected these banks due to the fact that these banks have IT department offices which supports electronic banking system of their bank plus these banks have large number of customers and branches.

In order to determine the sample size of the customers, the researcher employed Cochran's (1977) sample size determination formula, considering the sample size of the study population with 90% confidence level.

$$no = \frac{z^2 P(1-P)}{e^2}$$

Therefore, for a confidence level 90%, $Z = 1.645$, $e = 0.05$, and $p = 0.268$ (CBE 2015-16)

no =required return sample size according to Cochran's formula =214

3.6.2. Sampling Technique

Seven commercial banks were purposely selected for this study using purposive sampling method from all commercial banks found in Jimma based on the number of the commercial

banks whose district offices are located in Jimma town. On the other hand, the respondents considered in this study were selected using simple random sampling.

3.7. Method of Data Collection

The study only employed questionnaire as tool in order to gather the relevant data. Self-administered questionnaire were distributed to 214 customers, among which only 190 questionnaires were complete hence considered for the data analysis, the remaining 24 questionnaires were not filled out completely. The questionnaire includes close-ended questions in which the respondents were asked to indicate their degree of agreement on a five-point Likert rating scale with the following ratings. “5” Strongly agree, “4” agree, “3” moderate or neutral, “2” disagree, and “1” strongly disagree.

3.8. Method of Data Analysis, Presentation and Interpretation

For the purpose of achieving the objectives of this study, the researcher analyzed the collected data using descriptive statistics employing Statistical Package for the Social Sciences (SPSS: version 21). The data were analyzed using binary logistic regression. Accordingly, The data were presented through tables, figures, and bar charts with the statistical measures employed for each analysis.

3.9. Description of Study Variables

This study has two variables: independent variable and dependent variables. It is summarized as follows:

Variable	Dependent/ Independent	Level of Measurement (Attribute or Numeric)	Statistical Technique
Adoption of electronic banking service	Dependent	Numeric	Binary logistic regression
Perceived Security risk	Independent	Numeric	
Prior knowledge and experience	Independent	Numeric	
Perceived Ease of Use	Independent	Numeric	
Demographic characteristics	Independent	Numeric	

3.10. Ethical Considerations

The researcher believes that this study will be conducted by respecting the respondents' dignity and maintaining their privacy. In addition, the objectivity and confidentiality of personal information will be valued by the researchers. Prior to the data collection process, a permission letter will be sought from Jimma University Business and Economics college ethical review board; a verbal informed consent will be sought from each study participant after explaining the objective of the study. To avoid any mistakes, or ambiguities, the researchers believed it was necessary to completely eliminate anything that had identify the respondents in the form of their name, address, phone number, or signature.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1. Introduction

The primary objective of this study was to investigate factors that affect customer's adoption of electronic banking system in Jimma town, six private banks and one state owned bank were included in this study. This research examined a wide range of issue such as demographic factors (gender, religion, age, education and income), and the effect of eight variables namely: perceived risk, perceived usefulness, perceived ease of use, trust, prior knowledge and experience and awareness about electronic banking were assessed. The research findings relate to the results of the effects of awareness, organization factors, environmental factors, technological factors, demographic factors, and trust on the system variables in the adoption of E- banking. 190 customer's response results were analyzed using various statistical measures. Furthermore, Hosmer and Lemeshow test were conducted for variables which showed statistical significance were analyzed using forward LR method to determine final model. Consequently, the logistic regression analysis for the eight variables were conducted.

4.2. Results and Discussion

A total of 214 were distributed to customers of seven commercial banks in Jimma town to assess factors affecting customer's adoption of electronic banking systems in Ethiopian banking industry. 190 questioners were correctly filled and returned therefore the response rate for this research were found to be 88.78%. Therefore 190 Questionnaires were coded and entered in to SPSS version 21 and analyzed.

4.2.1. Socio-demographic characteristics of the respondents

		Frequency	Percent
Gender	Female	73	38.4
	Male	117	61.6
Religion	Christian	81	42.6
	Islam	109	57.4
Age	18-24	19	10.0
	25-34	119	62.6
	35-44	38	20.0
	45-54	6	3.2
	>55	8	4.2
Education	Elementary and Secondary School	55	28.9
	High School Complete	47	24.7
	College Certificate or diploma	47	24.7
	First Degree Holder	24	12.6
	Masters Degree	12	6.3
	Above Masters Degree	5	2.6
Monthly Income (ETB)	<1,500	49	25.8
	1,500-4,999	36	18.9
	5,000-7,999	36	18.9
	8,000-11,999	42	22.1
	>12,000	27	14.2
Use of e-banking service	YES	95	50
	NO	95	50

Table 1: General Characteristics of the Respondents

Table 1 above summarizes socio-demographic characteristics of the respondents. Accordingly, the statistical description of the respondents by gender shows that from the total of 190 respondents, 73(38.4%) were female and 117(61.6%) were male. Further, the religion of the respondents were 109(57.4%) were Islam and 81(42.6%) were Christian. This result can be explained by the fact that the majority of Jimma town dwellers are Islam. Moreover, the average age of the respondent's shows that 19(10.0%) were found between 18-24 age category, while age category comprising respondents aged 25-34 were 119(62.6%). This explains that the largest respondents were aged between 25 and 34. Further, 38 (20.0%) were between 35-44, 6 (3.2%) between 45-54, and the rest 8(4.2%) were above 55 (Table 1).

The distribution of the respondents by education level shows that majority, 55(28.9%) of them were in elementary and high school level followed by high school complete 47(24.7%) and college certificate or diploma level which accounted for 47(24.7%). On the other hand, bachelor degree holder were 24(12.6%), master's degree, 12(6.3%) and above master's degree were 5(2.6%) (Table 1). Regarding, the monthly income of the respondents, 49(25.8%) of the respondents were found to have a monthly income of less than 1500 ETB, 36(18.9%) earn a monthly income of 1,500-4,999, while also the same amount 36(18.9%) gate a monthly income of 5,000-7,999. on the other hand, 42(22.1%) of the respondents reported to earn a monthly income of 8,000-11,999, and the rest 27(14.2%) were found to have a monthly income of greater than 12,000 ETB (Table 1).

Moreover, the results indicate that only 50% of the respondents, that means 95 of them reported to use e-banking system. In general, as it can be understood from aforementioned description, the characteristics of the study population agrees with the study problem.

Bank in which Customer have an Account

Bank Name	Frequency	Percent	Cumulative Percent
1 Commercial Bank of Ethiopia	115	60.5	60.5
2 Dashen Bank	10	5.3	65.8
3 Awash Bank	19	10.0	75.8
4 Abyssina Bank	6	3.2	78.9
Valid 5 United Bank	8	4.2	83.2
6 Cooperative bank of Oromiya	3	1.6	84.7
7 Wogagen Bank	8	4.2	88.9
8. Multiple banks user	21	11.1	100.0
Total	190	100.0	

Table 2. Banks in which customers have an account among customers of commercial banks in Jimma Town.

On the other hand, the results of the descriptive analysis in Table 2 which presents the different banks in which customers have an account, show that majority, i.e., 115(60.5%) of them reported to be customer of Ethiopian Commercial Bank (CBE) and only 3(1.6%) reported to be customer of Cooperative Bank of Oromia and 21(11.1%) of them reported to have an account in more than one bank (Table 2). This result reveals that Ethiopian Commercial Bank (CBE) has much more customers that other banks found in the area. This is may be due to the large number of branches Ethiopian Commercial Bank (CBE) has relative to other banks found in the country.

Electronic Bank Use

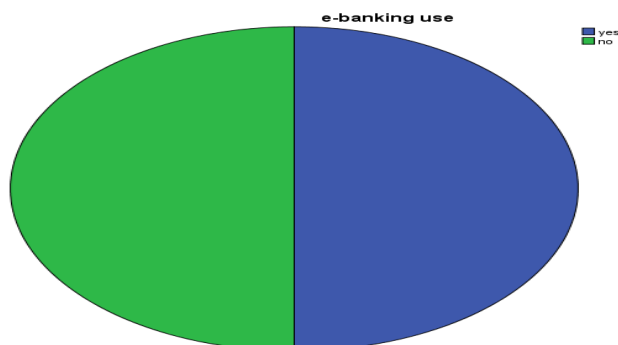


Fig. 1. Electronic banking systems utilization among customers of commercial banks in Jimma town.

The results of customers use of electronic banking system reveals that out of the total 190 respondents, 95(50%) of them were only found to use one or more of the different e-banking services provided by the commercial banks in Jimma town (Fig 1). The result of this thus implies that the number of e-banking users in Jimma town are fewer. This indicates that only few customers use e-banking service.

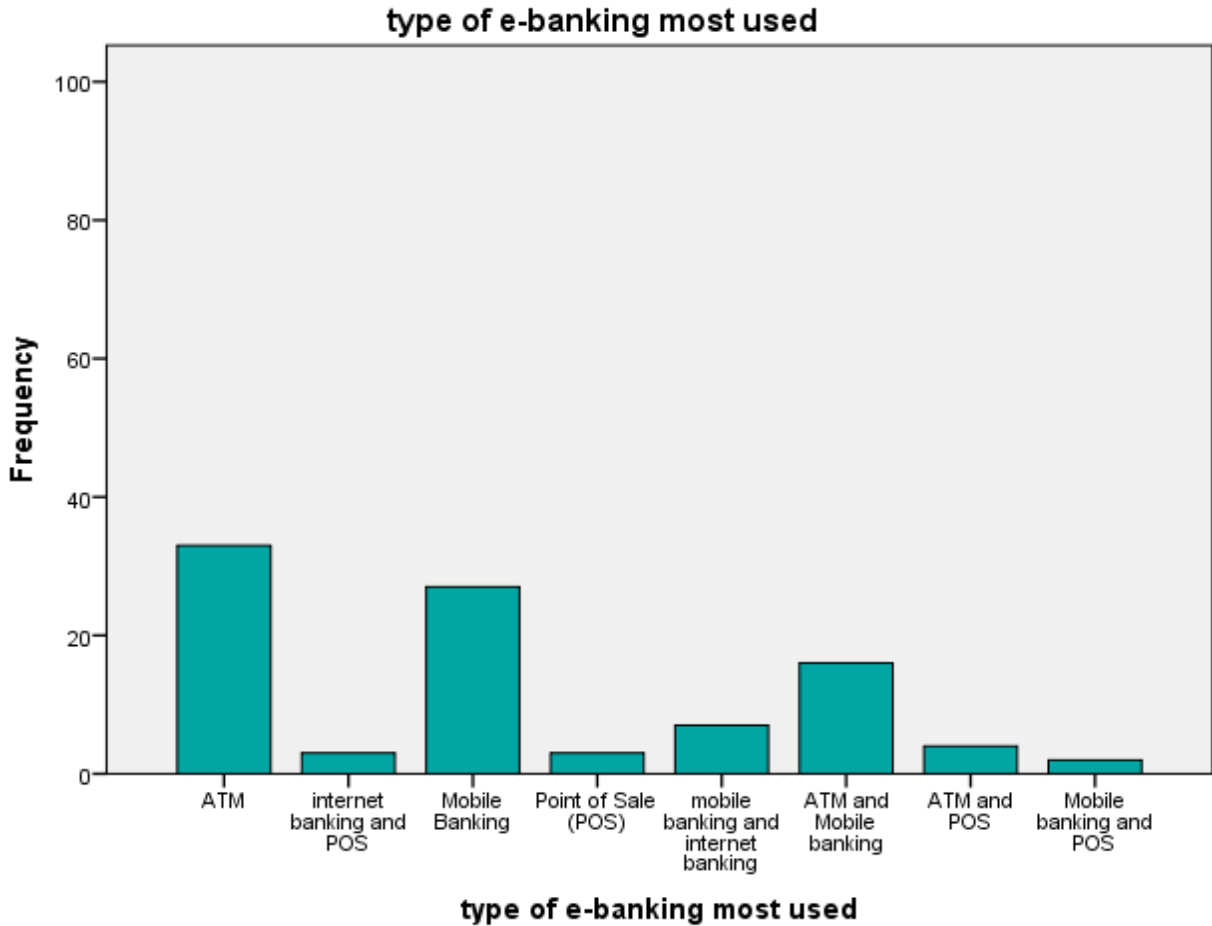


Fig 2. Types of e-banking systems most utilized by customers of commercial banks in Jimma town.

Regarding the type of electronic bank systems utilization of the customers, from the total 95 e-bank users 33(34.74%) of them reported to use ATM followed by mobile banking system users 27 (28.4%) and ATM and mobile banking users 26(13.7%) (Fig 2). Accordingly, the results of this Fig. indicate that ATM users amount a total of 48%, while 42% use mobile

banking. Hence, ATM service achieved the highest usage by respondents rather than other banking services. This might be because of ATM service is the first electronic banking technology.

Table 3. Distribution of electronic bank utilization by gender among customers of commercial banks in Jimma Town.

Gender * e-banking use Crosstabulation

			e-banking use		Total
			yes	no	
Gender	Female	Count	43	30	73
		% within Gender	58.9%	41.1%	100.0%
	Male	Count	52	65	117
		% within Gender	44.4%	55.6%	100.0%
Total		Count	95	95	190
		% within Gender	50.0%	50.0%	100.0%

Furthermore, the results of e-banking users by gender, Table 3, depicts that 43(58.9%) of e-banking users were female customers and 52(44.4%) were male customers. This implies that more female customers than male's use e-banking service. Nevertheless, the difference is not significant.

Table 4. Distribution of electronic bank utilization by religion among customers of commercial banks in Jimma Town.

Religion * e-banking use Crosstabulation

			e-banking use		Total
			yes	no	
Religion	Christian	Count	117	11	128
		% within Religion	91.4%	8.6%	100.0%
	Islam	Count	60	2	62
		% within Religion	96.8%	3.2%	100.0%
Total		Count	177	13	190
		% within Religion	93.2%	6.8%	100.0%

When we see the e-banking utilization by religion, 58(53.2%) users of e-banking service were found to be Islams whereas 37(45.7%) Christians (Table 4). However, the result reveals that there is no significant difference in e-banking service utilization by religion. This suggests religion is not a predictor of e-banking adoption and utilization in this study.

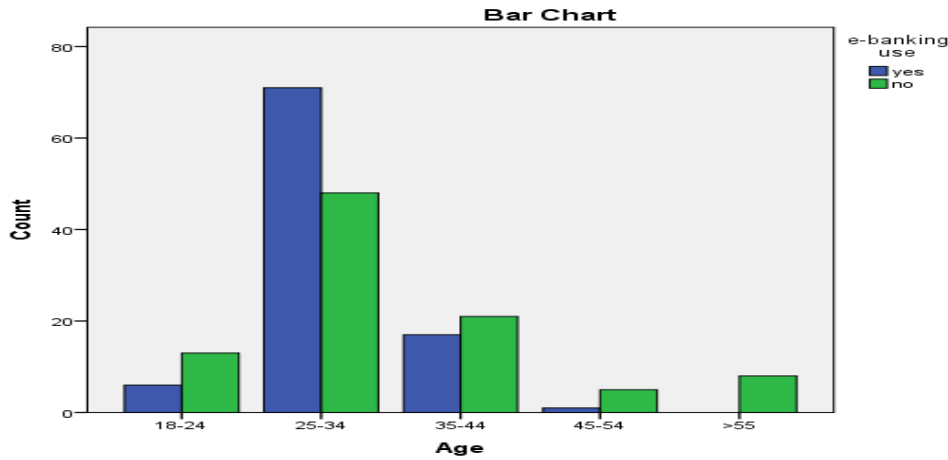


Fig 5. Electronic banking systems utilization by age group among customers of commercial banks in Jimma town May 2020

The result of e-banking utilization by age group reveals that 71(59.7%) of e-banking users were found to be in the age group of 25-34 years followed by age group of 35-44 which amounts 17 (21.4%). In contrary to this, none of those in the age group of greater than 55 were found to utilize the service (Fig. 5). Pearsons chi square test showed a statistically significant difference in e-bank utilization by age group (P-value 0.001) this indicates age group is a predictor for electronic banking utilization.

Monthly Income * e-banking use Crosstabulation

			e-banking use		Total
			yes	no	
<1500	Count	16	33	49	
	% within Monthly Income	32.7%	67.3%	100.0%	
1500-4999	Count	26	10	36	
	% within Monthly Income	72.2%	27.8%	100.0%	
5000-7999	Count	20	16	36	
	% within Monthly Income	55.6%	44.4%	100.0%	
8000-11999	Count	18	24	42	
	% within Monthly Income	42.9%	57.1%	100.0%	
>12000	Count	15	12	27	
	% within Monthly Income	55.6%	44.4%	100.0%	
Total	Count	95	95	190	
	% within Monthly Income	50.0%	50.0%	100.0%	

Table 6. Distribution of electronic bank utilization by monthly income among customers of commercial banks in Jimma Town.

when we compare electronic bank utilization by monthly income 26(72.2%) of those with a monthly income of between 1500-5000 ETB were found to utilize e banking systems followed by 20(55.6%) of those with a monthly income of between 5000-8000 ETB and 15(55.6%) of those with a monthly income of greater than 12, 000 ETB. but there was no statistically significant difference of e- banking utilization by monthly income (Pearson chi square test P-value= 0.05) (Table 6)

Educational Level * e-banking use Crosstabulation

			e-banking use		Total
			yes	no	
Educational Level	Elementary and Secondary School	Count	0	55	55
		% within Educational Level	0.0%	100.0%	100.0%
	High School Complete	Count	33	14	47
		% within Educational Level	70.2%	29.8%	100.0%
	Some College No Degree	Count	33	14	47
		% within Educational Level	70.2%	29.8%	100.0%
	First Degree Holder	Count	14	10	24
		% within Educational Level	58.3%	41.7%	100.0%
	Masters Degree	Count	10	2	12
		% within Educational Level	83.3%	16.7%	100.0%
	Above Masters Degree	Count	5	0	5
		% within Educational Level	100.0%	0.0%	100.0%
	Total	Count	95	95	190
		% within Educational Level	50.0%	50.0%	100.0%

Table 7. Distribution of electronic bank utilization by education level among customers of commercial banks in Jimma Town.

When we compare electronic bank utilization by education level 10(83.3%) those with master’s degree were found to utilize the service followed by 33(70.2%) of some college no degree group, contrary to this none of those in elementary and secondary school group were

found to utilize the e-banking systems (Table 7). Pearson chi square test showed a statistically significant difference of e-banking systems utilization by education level (P-value=0.00).

4.2.2. Description of predictors of electronic banking system Adoption

Perceived risk

To assess the factors affecting e-banking system utilization respondents were asked to rate on 10 questions related to perceived risk on a 5 scale Likert scale 1 for strongly disagree to 5 strongly agree. the result showed that question item number 5 “system disruption may occur frequently” were rated with a mean value of 3.19(SD=1.27) and item number 6 “getting compensation is usually difficult: were rated with a mean value of 3.02(SD=1.202) this means frequent system disruption and lengthy process of getting compensation is the most agreed upon barrier of electronic bank utilization the rest 8 questions were rated with a mean value of less than 3 which is the neutral point. (Table 8)

Table 8. Perceived risk towards utilization of electronic bank utilization among customers of commercial banks in Jimma Town.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
e-banking safe	190	1	5	2.79	1.439
e-banking is exposed to fraud and monetary loss	190	1	5	2.59	1.337
e-banking not secure in protecting private data	190	1	5	2.46	1.332
security control not safe	190	1	5	2.41	1.136
system disruption may frequently occur	190	1	5	3.19	1.275
getting compensation is usually difficult	190	1	5	3.02	1.202
e-banking is safe and secure from hackers	190	1	5	2.67	1.268
e-banking is not easy to rectify transaction errors	190	1	5	2.48	1.144
hackers can easily access data and account	190	1	5	2.68	1.167
I don't trust e-banking in general	190	1	5	2.33	1.338
Valid N (listwise)	190				

Perceived usefulness

To assess the perceived usefulness respondents were asked to rate on 7 questions related to perceived usefulness on a 5 scale likert scale 1 for strongly disagree to 5 strongly agree. The respondents rated all of the perceived usefulness questions above 3 point of the neutral point, which means that the respondents have a positive attitude to the usefulness of the e-banking systems. From the 7 questions item number 2 “Electronic banking is easy to carry out many banking activities” were rated 3.37(SD=1.53) and item number one “Electronic banking is fast to conduct activities were rated 3.33(SD=1.55) (Table 9).

Table 9. Perceived usefulness risk towards utilization of electronic bank utilization among customers of commercial banks in Jimma Town.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
PU EB is fast to conduct activities	190	1	5	3.33	1.553
PU EB is easy to carry out many banking activities	190	1	5	3.37	1.530
PU EB enables customers to receive any banking services	190	1	5	3.15	1.465
PU EB enables customers to make payments through mobile	190	1	5	3.28	1.558
PU EB is more preferable to make payment than CB	190	1	5	3.10	1.471
PU EB is more desirable to check account and make transactions	190	1	5	3.32	1.468
PU EB is more suitable and desirable to make any banking activities	190	1	5	3.17	1.489
Valid N (listwise)	190				

Perceived ease of use

To assess the perceived ease of usefulness respondents were asked to rate on 9 questions related to perceived ease usefulness on a 5 point likert scale 1 for strongly disagree to 5 strongly agree. The respondents rated item number one, two and six above 3-point contrary to this item number 9 “Electronic banking is very complex and difficult to understand” were rated with mean of 2.19(SD=1.14) which means the complexity of the process of e- banking is a major barrier of e-banking utilization (Table 10).

Table 10. Perceived ease of use electronic bank utilization among customers of commercial banks in Jimma Town.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
PEU EB is simple to use	190	1	5	3.19	1.429
PEU EB is easy to carry out range business transactions	190	1	5	3.37	1.338
PEU EB is doesn't require lot of effort & professional skill	190	1	5	2.95	1.336
PEU EB its instruction is easy to understand	190	1	5	3.12	1.250
PEU EB conducting business doesn't require wide knowledge	190	1	5	2.87	1.270
PEU EB i prefer to do banking activities b/c it is easy	190	1	5	3.22	1.293
PEU EB Mobile Banking or ATM instruction is not easy to understand	190	1	5	2.71	1.308
PEU EB is easy to use without support and help	190	1	5	2.80	1.248
PEU EB is very complex and difficult to understand	190	1	5	2.19	1.140
Valid N (listwise)	190				

Trust

To assess the trust of the customers on the e-banking systems respondents were asked to rate on 5 questions related to customers trust on a 5 scale likert scale 1 for strongly disagree to 5 strongly agree. The respondents rated all of the five questions below the neutral point. The least rate were given for item number one “electronic banking is not reliable” with a mean score of 2.54(SD= 1.33). the result shows the customers do have an issue trust with electronic banking systems (Table 11).

Table 11 Trust in electronic banking systems among customers of commercial banks in Jimma Town.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
T EB is reliable	190	1	5	2.54	1.332
T EB i have no trust on security protection system	190	1	5	2.68	1.323
T EB is not genuine and lacks a good reputation	190	1	5	2.81	1.341
T EB i don't trust banks have strong protection from hackers	190	1	5	2.74	1.335
T EB i doubt handle private data's confidential	190	1	5	2.63	1.346
Valid N (listwise)	190				

Prior knowledge and experience

To assess prior knowledge and experience of the customers respondents were asked to rate on 6 questions related prior knowledge and experience on a 5 scale likert scale 1 for strongly disagree to 5 strongly agree. the respondents rated item number 2, 4 and 5 above the neutral point of which the maximum score were given to item number 4”e-banking brings many advantages” with a mean score of 3.37(SD=1.28) and benefits to customers and the least score were given to item number one “I know little about the advantage of electronic banking systems” with a mean score 2.67(SD=1.37) (Table 12).

Table 12. Prior knowledge and experience of electronic bank utilization among customers of commercial banks in Jimma Town.

Descriptive Statistics					
	N	Minimu m	Maximu m	Mean	Std. Deviation
PKE EB i know little about the advantage	190	1	5	2.67	1.368
PKE EB is good for customer's to receive and carry out several banking services	190	1	5	3.11	1.397
PKE EB i have little experience of using system	190	1	5	2.83	1.374
PKE EB is brings many advantages and benefits for customers	190	1	5	3.37	1.282
PKE EB includes legal control to protect privacy and security of customers	190	1	5	3.16	1.234
PKE EB is more secure and protected as of Conventional Banking	190	1	5	2.95	1.225
Valid N (listwise)	190				

Accesses to infrastructure

To assess Accesses to infrastructure of the customers respondents were asked to rate on 5 questions related to accesses to infrastructure on a 5 scale likert scale 1 for strongly disagree to 5 strongly agree. the result shows the respondents rated item number 2 “Electronic banking is difficult due to internet coverage problems” with a mean score of 3.55(SD=1.27)

which means customers takes internet coverage as a barrier to e-banking utilization (table 13).

Table 13. Accesses to infrastructure of electronic bank systems among customers of commercial banks in Jimma Town.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
AI EB is available to all public	190	1	5	3.09	1.190
AI EB usage is difficult due to internet coverage problem	190	1	5	3.55	1.270
AI EB is available 24 hours and 7 days of a week	190	1	5	3.29	1.299
AI ATM rarely functions properly when needed	190	1	5	2.94	1.302
AI ATM machine is available in many places	190	1	5	3.00	1.230
Valid N (listwise)	190				

Awareness about electronic banking

To assess Awareness about electronic banking of the customers respondents were asked to rate on 5 questions related to Awareness about electronic banking on a 5 scale likert scale 1 for strongly disagree to 5 strongly agree. The result shows the least score were given to item number 2 “banks Provide awareness creation and training with a mean score of 2.73(SD=1.37) (Table 14).

Table 14 Awareness about electronic banking among customers of commercial banks in Jimma Town.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
A EB customers have enough knowledge how to use MB or ATM	190	1	5	3.25	1.435
A EB banks provide awareness creation and training	190	1	5	2.73	1.371
A EB offers information in more than one language	190	1	5	3.22	1.303
A EB wide advertisement and promotion in local media	190	1	5	3.11	1.361
A EB website of bank restricts an authorized access while using	190	1	5	2.97	1.283
Valid N (listwise)	190				

Technical support

To assess technical support about electronic banking of the customers, respondents were asked to rate on 4 questions related to technical support of electronic banking on a 5 scale likert scale 1 for strongly disagree to 5 strongly agree. The result shows respondents rated all of the questions related to technical support above the neutral point which means customers have a positive attitude towards the technical support provided by banks (Table 15).

Table 15. Technical support for electronic bank utilization among customers of commercial banks in Jimma Town.

	N	Minimum	Maximum	Mean	Std. Deviation
TS EB banks provide sufficient support for customer to use	190	1	5	3.23	1.251
TS EB banks encourage customers to use electronic payment service	190	1	5	3.36	1.186
TS EB service utilizes complete help function	190	1	5	3.11	1.272
TS EB banks provides guideline about the usage	190	1	5	3.36	1.200
Valid N (listwise)	190				

Table 16. Summary of Predictors of electronic banking systems utilization among customers of commercial banks in Jimma Town.

	N	Minimum	Maximum	Mean
Perceived Risk	190	1	5	2.662
Perceived usefulness	190	1	5	3.246
Perceived ease of use	190	1	5	2.936
Trust	190	1	5	2.68
Prior knowledge and experience	190	1	5	3.015
Accesses to infrastructure	190	1	5	3.174
Awareness about electronic banking	190	1	5	3
Technical Support	190	1	5	3.265

Table

16, summary of predictors of electronic banking systems utilization among customers depicts that perceived risks and trust were rated with a mean value of 2.66 and 2.68 which is below the neutral point 3. This means that the customers disagree with the risk of electronic banking systems similarly the customers disagreed to trust in the electronic banking system. Perceived usefulness was rated with a mean value of 3.24 greater than the neutral point which means the customers have a positive attitude towards the usefulness of the electronic banking system similarly the customers were found to have a positive attitude in their prior knowledge and experience, accesses to infrastructure, awareness about electronic banking and technical support.

4.2.3. Factors affecting electronic banking utilization

To determine the factors affecting the utilization of electronic banking a binary logistic regression was carried out taking electronic banking system use as a dependent variable and the different categories of independent variables of perceived risk, perceived usefulness, perceived ease of use, trust, prior knowledge and experience, accesses of infrastructure, awareness about electronic banking and technical support. The analyses were carried out considering a P-Value <0.05 for statistically significant association and 95% confidence interval using the backward likely hood ration (LR) method. The result of the analysis showed a statically significant association of two variable perceived risk of the customer on

electronic banking systems and prior knowledge and experience of electronic banking systems. Perceived risk of the customers showed a statistically significant association with P-value 0.009 $\beta = 0.06$, OR=1.62 95%CI (1.015-2.110) which means customers who disagreed to the risks of the system are 1.6 times more likely to utilize the system, the other variable prior knowledge and experience of the customers about electronic banking systems showed a statistically significant association with P-value 0.003, $\beta = -0.094$, OR=0.910, 95%CI (0.856-0.968) which means customers who disagreed to the prior knowledge and experience of electronic banking systems 91% times less likely to utilize the system (Table 17). The two variables explains that 64 % of the factors determining electronic banking system utilization leaving 36% of the factors unexplained as it is explained by the classification plot of the regression output (Table 18).

Table 17. Binary logistics regression output of determinants of electronic banking systems among customers of commercial banks in Jimma Town

		Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	Perceived risk	.036	.033	1.209	1	.272	1.037	.972	1.106
	Perceived usefulness	.015	.029	.257	1	.612	1.015	.959	1.073
	Ease of use	.026	.037	.490	1	.484	1.026	.955	1.103
	Trust	.020	.044	.205	1	.651	1.020	.936	1.111
	Knowledge and experience	.025	.052	.220	1	.639	1.025	.925	1.136
	Infrastructure	.021	.053	.151	1	.698	1.021	.920	1.133
	Awareness	-.127	.067	3.649	1	.056	.881	.773	1.003
	Technical support	-.050	.079	.394	1	.530	.952	.815	1.111
	Constant	-.393	1.033	.145	1	.704	.675		
Step 2 ^a	Perceived risk	.039	.032	1.437	1	.231	1.039	.976	1.107

	Perceived usefulness	.015	.029	.294	1	.588	1.016	.960	1.074
	Ease of use	.025	.037	.467	1	.494	1.026	.954	1.103
	Trust	.021	.043	.237	1	.626	1.021	.938	1.112
	Knowledge and experience	.029	.051	.313	1	.576	1.029	.931	1.138
	Awareness	-.120	.064	3.557	1	.059	.887	.783	1.005
	Technical support	-.054	.078	.483	1	.487	.947	.813	1.104
	Constant	-.281	.993	.080	1	.777	.755		
	Perceived risk	.048	.025	3.594	1	.058	1.050	.998	1.103
	Perceived usefulness	.008	.024	.111	1	.739	1.008	.961	1.057
	Ease of use	.029	.036	.632	1	.427	1.029	.959	1.105
Step 3 ^a	Knowledge experience	.032	.051	.403	1	.526	1.033	.935	1.141
	Awareness	-.125	.063	3.899	1	.048	.882	.779	.999
	Technical support	-.051	.078	.437	1	.508	.950	.815	1.106
	Constant	-.210	.984	.046	1	.831	.810		
	Perceived risk	.050	.025	3.906	1	.048	1.051	1.000	1.104
	Ease of use	.032	.035	.823	1	.364	1.032	.964	1.106
	Knowledge and experience	.030	.050	.354	1	.552	1.030	.934	1.137
Step 4 ^a	Awareness	-.127	.063	4.044	1	.044	.881	.779	.997
	Technical support	-.038	.067	.329	1	.566	.962	.844	1.097
	Constant	-.246	.978	.063	1	.802	.782		
	Perceived risk	.054	.024	5.155	1	.023	1.056	1.007	1.106
	Ease of use	.028	.034	.657	1	.418	1.028	.962	1.099
	Knowledge and experience	.023	.049	.217	1	.642	1.023	.930	1.125
Step 5 ^a	Awareness	-.141	.058	5.891	1	.015	.869	.776	.973
	Constant	-.407	.935	.190	1	.663	.666		

Step 6 ^a	Perceived risk	.057	.023	6.132	1	.013	1.059	1.012	1.108
	Ease of use	.029	.034	.716	1	.397	1.029	.963	1.100
	Awareness	-.129	.052	6.164	1	.013	.879	.794	.973
	Constant	-.290	.899	.104	1	.747	.749		
Step 7 ^a	Perceived risk	.060	.023	6.912	1	.009	1.620	1.015	2.110
	Awareness	-.094	.031	8.991	1	.003	.910	.856	.968
	Constant	-.132	.876	.023	1	.880	.876		

Table 18 Classification plot Binary logistics regression output of determinants of electronic banking systems among customers of commercial banks in Jimma Town

Classification Table^a

	Observed	Predicted			
		e-banking use		Percentage Correct	
		yes	no		
Step 1	e-banking use	yes	61	33	64.9
		no	37	58	61.1
	Overall Percentage				63.0
Step 2	e-banking use	yes	64	30	68.1
		no	37	58	61.1
	Overall Percentage				64.6
Step 3	e-banking use	yes	70	24	74.5
		no	36	59	62.1
	Overall Percentage				68.3
Step 4	e-banking use	yes	69	25	73.4
		no	35	60	63.2
	Overall Percentage				68.3
Step 5	e-banking use	yes	71	23	75.5
		no	37	58	61.1

	Overall Percentage			68.3	
Step 6	e-banking use	yes	66	28	70.2
		no	39	56	58.9
	Overall Percentage			64.6	
Step 7	e-banking use	yes	65	29	69.1
		no	39	56	58.9
	Overall Percentage			64.0	

4.3. Discussion of Findings

4.3.1. Factors affecting customers electronic banking systems utilization

Socio-demographic factors

In this survey, socio-demographic characteristics such as gender, religion, age, education, and income level were considered to determine the demographic factors that influence the adoption level of electronic banking applications. These factors are considered based on previous studies conducted by various authors. The results of this survey thus demonstrated that gender, religion, and monthly income are not significant predictors of demographic characteristics affecting the adoption of electronic banking use. As it is illustrated on Table 4 of this survey, the figure showed that there is no difference in electronic banking adoption by gender. Pearson chi-square test for gender P-value = 0.053 also asserts that these variables are independent of each other and no difference is accounted for gender, i.e., there is no statistically significant association between gender and the adoption of electronic banking services. This is in line with the results from some previous studies from other countries (Bernheim et al., 2003; Breitbach & Walstad, 2014; Goodstein & Rhine, 2013; Krishanan et al., 2017; and Nguyen, Cao, Dang, & Nguyen, 2016). This study thus identified that gender is not significant predictors affecting customers electronic banking adoption and usage. However, the finding in this study seems to be inconsistent with Qureshi and Hoppel (1995) have investigated the gender variable and found that there is a relationship between gender,

and adoption and use of electronic banking services, reported that males are better adopt electronic banking applications than females, while Times (1996) showed the antithesis.

Similar to this, the study findings also showed no differences are accounted for religion. The result depicted on Table 5 of the study indicates that there is no direct relationship between religion and electronic banking system adoption or usage. Pearson chi-square test value for religion p-value = 0.304 suggests that religion is not a matter in terms of electronic banking adoption by customers. Moreover, the same is true for monthly income. Table 6 of this survey demonstrated that there is no statistically significant difference of electronic banking use by customers in terms of monthly income. No significant results were found for all variables accounted for monthly income status (P-value = 0.05).

In general, the study found out that independent sample chi square test output, P-value=0.053, 0.304, and 0.05 for gender, religion and monthly income respectively. These demonstrates that there is no statistically significant association between these variables and electronic banking adoption or usage behavior among customers. Hence, the hypothesis for H4 is not accepted when compared in terms of these variables.

On the other hand, the results of Fig. 5 of this survey indicated that age is statistically significant predictors of demographic characteristics that affect the adoption of electronic banking use. The average age of the sample showed that the highest group comprises of age 25-34 (62.6%) of the total population, followed by age group between 35-44 (20.0%), then 18-24 (10.0%), and the remaining 7.4% belongs to age >45. This shows that 92.6% of the users were found to be in the age group of 18-44 years (Fig 5). As for age, the P-value result is 0.001. This asserts that there is a statistically significant relationship between age and customers electronic banking adoption and usage. In contrast, none of those in the age group greater than 55 were found use the electronic banking service. It is thus implied that age directly influences the use of electronic banking of customers.

The result of this study hence explained the fact that adults are better to adopt new technologies as compared with aged one's. This result is consistent with previous research done by Times (1996); Kerem (2002); Akinci et al., (2004); Laforet and Li, (2005); Spacey et

al (2004). Times (1996) and Kerem (2002) showed that the electronic banking users tend to be young adult and they would be very much attracted to utilize innovative banking services, while in Akinci et al., (2004); Laforet and Li, (2005) research the mid-aged people are more likely to use electronic banking than younger or older consumers and they will have an important effect on subsequent adoption of further new technology (Akinci et al., 2004; Laforet and Li, 2005). Spacey et al (2004) showed that older people are less convenient when using technology. Kleijnen et al (2004) said that the age has an effect on the perceived usefulness, perceived ease of use, and intention to use in wireless financial services acceptance. Al-Jamal & Abu-Shanab (2015) concluded that age is a significant predictor of the intention to use technology.

Likewise, the study found out that education is a significant predictors of electronic banking usage by customers. The figure on Table 7 of this study demonstrates that education have a direct effect on customers adoption of electronic banking services. The result for Pearson chi square test showed a statistically significant difference of electronic banking systems usage by education level P-value=0.00. Accordingly, 83.3% master's degree holders were found to use electronic banking service, next to 70.2% by some college or no degree group. Contrary to this none of those in elementary and secondary school group were found to use electronic banking systems (Table 7). This explains that educated people are more likely to adopt electronic banking system than non-educated ones. The findings thus portray that the adoption of electronic banking service is significantly associated with level of education. Such result is in line with previous research Al-Ashban & Burney, (2001), Porter and Donthu (2006) and Izogo et al (2012). In this context, Al-Ashban and Burney (2001) investigated the adoption of internet banking in Saudi Arabia, the result showed that the educational level played an important role in the adoption and usage of internet banking. Porter and Donthu (2006) emphasized the role of education as being associated with the Internet and customer attitude towards IB adoption. People with higher educational level may have competence for computers and possess good information processing skills, which better facilitate Internet use (Nasri, 2011). Izogo et al (2012) found that more educated consumers adopt e-banking more than the less educated ones.

In general, the independent sample chi square test output, P-value=0.001, and 0.00 for age and education respectively, show that there is a statistically significant relationship between those variables and electronic banking adoption or usage behavior. Therefore, the hypothesis H4 is accepted when compared with these variables.

Binary Logistics Regression Output

Table 17 of this study illustrates the output of a binary logistic regression which was carried out to determine factors or predictors that affect the utilization of electronic banking system. The researcher used electronic banking system as a dependent variable and the different categories such as perceived risk, perceived usefulness, perceived ease of use, trust, prior knowledge and experience, accesses of infrastructure, awareness about electronic banking and technical support as independent variables. Accordingly, the aforementioned independent variables (predictors) were analyzed against the dependent variable. The result of the analysis thus showed that a statically significant association of two variables. These are perceived risk of the customer on electronic banking systems and prior knowledge and experience of electronic banking systems. Perceived risk of the customers showed a statistically significant association with P-value 0.009 $\beta = 0.06$, OR=1.62 95% CI (1.015-2.110) which means customers who disagreed to the risks of the system are 1.6 times more likely to utilize the system (Table 17).

The findings of this study thus suggest that perceived risk is one of the predictors of factors affecting customers utilization of e-banking system in Ethiopian industry. The findings of this study can be justified by the fact customers have a trust issues and dissatisfaction with the security system of the e-banking technology provided by the bank, i.e. they feel that their account information can be tempered by others. Besides, most customers reported that they wary of frequent system disruption and financial losses that come due to the system disruption.

In addition to this, the delay processes of getting compensation from banks were also considered in this study as a significant impact on the adoption of this service. Therefore, this study identified that lack of reliable technology service availability and complex of bureaucracy system are the major factors facing the banking industry in adoption of e-

banking service. This means the complexity of the process of e-banking is a major barrier of e-banking utilization. The result obtained from the survey in this study also confirms the finding of Opia (2008) claimed that innovations with perceived complexities of user interface and steep learning curve, which thought risky to adopt. The study result appeared to be consistent with most previous findings, moreover with the findings of Khalfan et al. (2006), Wondwossen and Tsegai (2005), Zhao et al. (2010), and that of Laukkanen (2008).

Furthermore, the result of the analysis suggest that the other predictors of factor that affect customers utilization of e-banking system in Ethiopian e-banking industry is prior knowledge and experience of customers about electronic banking systems. Prior knowledge and experience of the customers about electronic banking systems showed a statistically significant association with P-value 0.003, $\beta = -0.094$, OR=0.910, 95%CI (0.856-0.968) which means customers who disagreed to the prior knowledge and experience of electronic banking systems 91% times less likely to utilize the system (Table 17). The two variables explains that 64 % of the factors determining electronic banking system utilization leaving 36% of the factors unexplained as it is explained by the classification plot of the regression output (Table 18).

The result of this suggest that customer's adoption of e-banking is directly associated with their prior knowledge and experience of technologies. Thus, customer's familiarity with technologies in general facilitates user's appreciation of the potential added value which is inherent in a technology. The prior conceptual knowledge and experience is associated with their perception. The results obtained from respondents justifies that prior knowledge and experience is also one influential factor that affect electronic banking adoption by customers. The finding of the study asserts prior knowledge and experience is one determinant factor affecting adoption of e-banking service. The result is consistent with the findings of Karjaluoto et al. (2002) who showed that prior experience with technology and attitudes towards technologies influence both attitudes towards e-banking and actual behaviors.

On the other hand, the findings justifies that the customers have little awareness about electronic banking and their knowledge level is poor to utilize electronic banking system as they potentially can use. The findings of this research suggest awareness of electronic banking have significant influence on the adoption of e-banking and is a major obstacle. The

results of current study are inconsistent with the results of Rogers (2003) who found that if the adopter of a new technology is having suitable level of education than he/she will be more reactive to new innovation as compared to the non-adopter. However, though customers may have somehow awareness about electronic banking, much work remains necessary from banks in providing awareness creation and training on how to use e-banking in general.

4.4. Overall Summary Discussion

Further the overall analysis of the logistic regression for all variables which showed a statistically significant association were tested against the dependent variable at a P-Value of 0.05 using the forward LR method to determine the final model. The result of the logistic regression analysis in the second step shows the process terminated at step 6 at which no more variable can be removed or added, and on this step the model fitness was found to be good as the Hosmer and Lemeshow test found to be insignificant (P-Value 0.418) and the model is found to explain 68.9% of the factors determining the e-banking system utilization as shown in the classification table.

A total of 8 variables; 3 variables from perceived risk two variables from trust and one variable from prior knowledge and experience explained 68.9% of the factors affecting electronic bank utilization. The model shows that those who believes electronic banking is secure in terms of protecting customers private data are nearly two times to utilize the electronic banking systems ($\beta = 0.663$, Exp B= 1.941; 95% CI 1.321-2.851), those who don't believe that system disruption may frequently occur while using e-banking systems are 1.6 times more likely to utilize the system ($\beta = 0.458$, Exp B 1.581; 95% CI 1.013-2.466) and those who believes electronic banking systems would handle private data confidential are 1.6 times more likely to utilize the system ($\beta = 0.447$, Exp B=1.563; 95% CI 1.058-2.310). In contrast to this, those who believes that e-banking is not genuine and lacks good reputation and getting compensation from banks us usually difficult when transaction error occurs due to system disruption are 56.3% less likely to utilize the system ($\beta = -0.57$, Exp $\beta = 0.563$), similarly those who believes that banks who do not provide awareness creation and training on how to use mobile banking and ATM are 70.2% less likely to utilize the system ($\beta = -0.353$, Exp $\beta = 0.702$) (Table 14).

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1. Conclusion

The aim of this study was to investigate factors that affect customers adoption of electronic banking system in Ethiopia banking industry: the case of commercial banks in Jimma town. In this study the researcher examined variables such as perceived risks, perceived usefulness, perceived ease of use, trust, prior knowledge and experience, accesses of infrastructure, awareness about electronic banking and technical support. Accordingly, the findings of the study suggested that perceived risks related with fear of system disruption and the complexity and prolonged processes involved in getting compensation when transaction error occurs due to system disruption, and prior knowledge and experience have a positive significant effect on customers adoption of electronic banking. Table 18, result of the classification plot binary logistics regression output asserts that the aforementioned variables constitute 64% of the general factors affecting customers utilization of electronic banking (Table 18,). In addition to this, the study demonstrated that perceived ease of use, trust, and awareness of electronic banking are significant predictors of factors affecting electronic banking adoption by customers. Demographic characteristics such as age and education were also found to be significantly associated with factors that determine electronic banking utilization in customers (Fig. 5 and Table 7).

Moreover, the study findings suggests that perceived risk of the customer on electronic banking systems and prior knowledge and experience of electronic banking systems have a positive association with the adoption of e-banking in commercial banks of Ethiopian industry. This has justified that perceived risk, perceived ease of use, trust, prior knowledge and experience and awareness are among the major factors that hinder adoption of e-banking system by Ethiopian banking industries.

5.2. Recommendation

Based on the findings, the researcher suggested (put forward, made) the following recommendations:

- Banks should ensure their electronic banking infrastructure contain sufficient capacity and redundancy to ensure reliable service availability and develop risk reducing strategies that could reduce the customers' worry about system disruption in such a way as to ensure its most efficient use.
- Banks need to enhance the quality of electronic banking service to the needs of customers including the development of security of electronic banking services, and protecting personal information.
- Banking organizations need to be effective and responsive to the needs of customers for electronic banking in giving unconditional loss guarantees, and reducing the possibility of delays of compensation in case if transaction error occurs due to system disruption.
- Banks should make an effort to educate customers and to create awareness regarding electronic banking among its customers to increase its usage
- Banks need to reflect on making improvement in providing safe and secure electronic banking services along with making it easy and convenient to use.

To sum up, the banking sector of Ethiopia has to precisely take the necessary steps to avoid difficulties in adoption of electronic banking in these areas so that the benefits of electronic banking can be enjoyed and economy can be developed.

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Appendices

Appendix- I Questionnaire in English Version

Jimma University
Collage of Business and Economics
Department of Banking and Finance
Questionnaire

I am a graduate student at Jimma University, Collage of Business and Economics, Department of Banking and Finance. I am undertaking a survey on the title: **Factors Affecting Customer’s Adoption of Electronic Banking System in Ethiopia Banking Industry.** The objective of this research is to investigate the factors that affect customer’s utilization of electronic banking system in selected commercial banks of Jimma town. To this end, I have prepared a questionnaire for customers for your contribution in filling out this questionnaire has great value for the success of my study.

I, therefore, request for your kind assistance in completing the questionnaire to the best of your knowledge. The information you provide will be treated with complete confidentiality and will be used solely for academic purposes. **Note:** you do not need to write your name on the questionnaire as your response will remain anonymous in the research report. A copy of the final report will be availed to you upon request.

Thank you in advance for your participation!!!

For further information, please contact the student researcher: **Abdi Hunde**, Tel. +251911421780 Email abdihun22@gmail.com.

Section I: Socio-demographic Details

Please indicate the following details by ticking (√) on the spaces in front of the response options:

Gender	Male <input type="checkbox"/>	Female <input type="checkbox"/>	
Religion	Christian <input type="checkbox"/>	Islam <input type="checkbox"/>	Others <input type="checkbox"/>
Age	18 - 24 <input type="checkbox"/>	35 - 44 <input type="checkbox"/>	Above 54 <input type="checkbox"/>
	25 - 34 <input type="checkbox"/>	45 - 54 <input type="checkbox"/>	

Monthly Income	Less than Br 1,500 <input type="checkbox"/>	Br 5,000 to Br 7,999 <input type="checkbox"/>	Above Br 12,000 <input type="checkbox"/>
	Br 1,500 to Br 4,999 <input type="checkbox"/>	Br 8,000 to Br 11,999 <input type="checkbox"/>	
Educational Level	High School Complete <input type="checkbox"/>	First Degree Holder <input type="checkbox"/>	Above Master's Degree <input type="checkbox"/>
	Some collage no Degree <input type="checkbox"/>	Masters Degree <input type="checkbox"/>	

Section II: General Banking Information

Please supply the information by circling the response options

1. In which bank do you have an account?
 1. Commercial Bank of Ethiopia
 2. Dashen Bank
 3. Awash Bank
 4. Abyssinia Bank
 5. United Bank
 6. Cooperative Bank of Oromia
 7. Wegagen Bank
2. Do you use electronic banking system?
 1. YES
 2. NO
3. If your answer for **№. 2** is 'YES', which type of electronic banking service do you use more?
 1. ATM
 2. Mobile Banking
 3. Internet Banking
 4. Point of sale (POS)

Section III: Factors Affecting Customer's Adoption of Electronic Banking System.

Listed below are a series of statements related with factors affecting customer's adoption of electronic banking system. Please, rate whether you agree or disagree with each statement by ticking (√) in the boxes that specify your choice from the options ranging from **Strongly Disagree (1)** to **Strongly Agree (5)**. **Note: SD=Strongly Disagree (1), D=Disagree (2), N=Neutral (3), A=Agree (4), SA=Strongly Agree (5)**

No.	Items	SD	D	N	A	SA
		(1)	(2)	(3)	(4)	(5)
1. Perceived Risk						
101	Electronic banking system is safe					
102	Electronic banking system may mostly expose to fraud or monetary lose					
103	Electronic banking is not secure in terms of protecting customer's private data					
104	The security control of electronic banking system is not safe					
105	System disruption may frequently occur while using electronic banking					
106	Getting compensation from banks is usually difficult when transaction error occurs due to electronic banking system disruption					
107	Electronic banking is safe and secure from hackers					
108	It is not easy most of the time to rectify transaction errors when using electronic banking					
109	Hackers can easily access accounts and data of electronic banking users					
110	I don't trust electronic banking system in general					
2. Perceived Usefulness						
201	Electronic banking is fast to conduct any banking activities relative to conventional banking					
202	Electronic banking is easy to carry out many banking activities in a very short time					
203	Electronic banking enables customers to easily receive any banking services					
204	Electronic banking enables customers to					

	make payment to others through their mobile					
205	Electronic banking is more preferable to make any payment than conventional banking					
206	Electronic banking is desirable to check my account and perform transaction anytime, anywhere					
207	I believe that electronic banking is more suitable and desirable to carry out banking activities					
3. Perceived Ease of Use						
301	Electronic banking use is easy and simple					
302	It is easy to carry out a range of business transactions just using electronic banking					
303	Electronic banking usage doesn't require a lot of effort and professional skill					

304	I think that electronic banking system and its instruction is easy to understand					
305	Conducting business using electronic banking doesn't require a wide knowledge					
306	I prefer electronic banking to do banking activities because it is easy to use					
307	The instruction for using Mobile Banking or ATM machine is not easy to understand					
308	It is easy to use electronic banking service without anyone's support and help					
309	Electronic banking system is very complex and difficult to understand.					
4. Trust						
401	Electronic banking is reliable					
402	I have no trust in electronic banking security protection system					
403	Electronic banking system is not genuine and lacks a good reputation					
404	I don't trust banks have a strong protection					

	system from hackers					
405	I doubt electronic banking system would handle private data's confidential					
5. Prior Knowledge and Experience						
501	I know little about the advantage of electronic banking system					
502	Electronic banking is good for customer's to receive and carry out several banking services					
503	I have little experience of using electronic banking system					
504	Using electronic banking brings many advantages and benefits for customers					
505	Electronic banking includes legal control in order to protect the privacy and security of its customers					
506	Electronic banking service is more secure and protected as of conventional banking					

6. Access of Infrastructure						
601	Electronic banking accessible is available to all public					
602	Electronic or mobile banking usage is difficult due to internet coverage problem					
603	Electronic banking service is available 24 hours and 7 days of a week					
604	Mobile or ATM machine rarely functions properly when needed					
605	ATM machine is available in many places					
7. Awareness about Electronic Banking						
701	Customers have enough knowledge how to use of mobile banking or ATM machine					
702	Banks provide awareness creation and training on how to use mobile banking or ATM machine					
703	Mobile banking or ATM machine offers information in more than one language					

704	There is a wide advertisement and promotion about electronic banking service in local media such as newspapers, magazines and TV					
705	The website of the bank restricts an authorized access while using electronic banking					
8. Technical support						
801	Banks provide sufficient support for customers to use electronic banking system					
802	Banks encourage customers to use electronic payment service/product					
803	Electronic banking service utilizes complete help function					
804	The bank provides guideline about the usage of electronic banking system.					

Appendix- II Questionner in Afan Oromo Version

**Yuunivarsitii Jimmaatti
Kollejii Bizinasaa fi Ikonomiksii
Mumee Bankiif Fayinaansii
Gafilee Maamiltoota Bankiif Qopha'ee**

Anii barataa yunivarsitii Jimma kolejii Businasaa fi Ikonomiksitti mumee Bankii fi Fayinansii Kanaan ta'ee barnoota koo xumuruuf mata duree : **Factors Affecting Customer's Adoption of Electronic Banking System in Ethiopia Banking Industry.** jedhuun qoranoo gegeessutan argamaa. Kuniis fudhatamaa fi itti fayyadama Elektrooniik Baankii maamiltootataratti danqaa waantoota ta'aan adda baasudhaan yaada furmaata dhihesuuf kan yaadamee yeroo ta'uu, milkoominaa kanaaf yaadni kenitaan bu'uura cimaa dha. Haalumaa Kanaan gafiile armaan gaddi obsaan akka gutaan gaafachaa gucaa kana gutuuf maqaa bareessun hin barbaachisuu, garagalchaa bu'aa qoranoo kana fudhachuun ni danda'amaa.

Duraandursee Yeroo keessaniif Galatoomaa!!!

Yaada fi gaffii yoo qabaatan Teessoon: **Abdii Hundee**, Tel. +251911421780

Email abdihun22@gmail.com.

Kutaa 1 : Odeefano Hawaasumaa

Maaloo deebii keessan malattoo (√) saanduqaa qophayee keessa ka'un deebisaa :

Saala	Dhiira <input type="checkbox"/>	Dhalaa <input type="checkbox"/>	
Amantii	Kiristaana <input type="checkbox"/>	Islaama <input type="checkbox"/>	Kan biraa <input type="checkbox"/>
Umurii	18 - 24 <input type="checkbox"/>	35 - 44 <input type="checkbox"/>	Above 54 <input type="checkbox"/>
	25 - 34 <input type="checkbox"/>	45 - 54 <input type="checkbox"/>	
Galii Ji'aa /Qarshiidhaan/	Qr 1,500 Gadii <input type="checkbox"/>	Qr 5,000 to Qr 7,999 <input type="checkbox"/>	Qr 12,000 Ool <input type="checkbox"/>
	Qr 1,500 to Qr 4,999 <input type="checkbox"/>	Qr 8,000 to Qr 11,999 <input type="checkbox"/>	
Sadarkaa Barumsaa	Sadarkaa 2ffaa kan xumuree <input type="checkbox"/>	Digrii Jalqabaa <input type="checkbox"/>	Maastarsii ol <input type="checkbox"/>
	Kollejjii xumuree Digrii <input type="checkbox"/> Kan hin qabnee <input type="checkbox"/>	Digrii 2ffaa (Maastarsii) <input type="checkbox"/>	

Kutaa 2: Gaaffii Waliigalaa

Maaloo deebii keessan bakka siritti gengoo gochuun deebisaa:

1. Baankii kamii herreega banattanii qabdu?
 1. Baankii Daldala Itiyooophiyaa
 2. Baankii Daashan W.A
 3. Baankii Awaash W.A
 4. Baankii Abisiniyaa W.A
 5. Baankii Hibrat W.A
 6. Baankii Waldaa Hojii Gamtaa
 7. Baankii Wagaagan
2. Tajaajila Elektroniiksii Baankii ni fayyadamtuu?
 1. Eeyyee
 2. Lakkii
3. Lakkoofsa Lamaffaaf deebiin keessan yoo 'Eeyyee' ta'e, yeroo baay'ee tajaajila kamiin fayyadamtu?
 1. Tajaajila ATM
 2. Tajaajila Moobaayila Baankii
 3. Tajaajila Intarneet Baankii
 4. Tajaajila POSii

Kutaa 3: Yaadotaa Itti Fayadamaa Tajaajilla Elektrooniik Baankiiratti Dhibaa Qabaan.

Kutaa kana keessa yaadonii itti fayadamaa Tajaajila Elektrooniik bankii iratti dhibaa fiduu danda'uu jedhamaan taressamaniiruu. Isiniis yaadota ta'anii iratti hamamiin akka itti waligaltanii sadarkaa 1-5 ta'aan keessa malatoo (√) ka'uun ibsaa. **Sadarkaa:** **BH**=Bayee itti wali-hingaluu (1), **WH**=Walii hingaluu (2), **GG**=Giduu Galeessa (3), **WG**=Walii Galaa (4), **BW**=Bayeen walii Galaa (5)

Lakk	Ibsaa Yaadotaa	BH (1)	WH (2)	GG (3)	WG (4)	BW (5)
1. Sodaa Fayyadama Tajaajilarra Jiru						
101	Elektronik Baankiin amansisaa dha.					
102	Yeroo baayee tajaajilli elektronik baankii hattootaaf saaxilamaa dha.					
103	Baankiin ragaa maamiltootaa Elektroniik Baankii seeraan hin eegu.					
104	Wiirtuun ragaa ittisaa laafaa dha.					
105	Tajaajilli Elektronik Baankii yeroo baay'ee hin hojjetu.					
No.	Ibsaa Yaadotaa	BH (1)	WH (2)	GG (3)	WG (4)	BW (5)
106	Elektroniik Baankii fayyadamuun dogongorri yoo mudate battalumatti					

	Baankichaan tajaajila sirreefamaa argachuu hin dandeenyu.					
107	Tajaajilli Elektoniik Baankii amansisaa fi mijataa dha.					
108	Elektroniik Baankii fayadamuun dogongoraa dadabarsa maallaqaarratti nu mudatee sireessuun ni danda'ama.					
109	Hattoonii herregaa fi ragaa maamiltotaa haala salphaa ta'een sochoosu danda'u.					
110	Gabaabumatti tajaajila Elektroonik Baankii irraa amantaa hin qabu.					
2. Faayidaa Elektroniik Baankii						
201	Tajaajila Baankii idilee caalaa Elektroniik Baankiitiin fayyadamuun saffisaan tajaajila argachuu kan dandeessisuudha.					
202	Tajaajilli Elektroonik Baankii fayyadamuun haala salphaa ta'een tajaajila baankii argachuun ni danda'ama.					
203	Elektroniik Baankiin maamiltoonni tajaajila Baankii karaa salphaa ta'een akka raawwatan kan dandeessisu dha.					
204	Maamiltoonni Moobaaylii isaaniitiin fayyadamuun maallaqa dabarsuuf ni gargaara.					
205	Elektroniik Baankii fayyadamuun kaffaltii kamiyyuu raawwachuuf filatamaa dha.					
206	Elektroniik Baankiin bakka jirruutti, yeroo kamiyyuu herrega keenya beekuufis ta'ee tajaajila Baankii argachuu nu dandeessiisa.					
207	Elektroniik Baankii bakkan jiruutti,,yeroo kamiyyuu akka natti tolutti saffisaan tajaajila argachuu kan na dandeessisuudha.					
3. Karaa Fayyadamaa Tajaajila						
301	Elektrooniik Baankiin fayyadamuun salphaa fi mijataa dha.					
302	Tajaajillii kun herrega baankii koo sochoosuuf na dandeessisa.					
303	Fayyadamaa tajaajila kanaa ta'uuf dandeettii addaa nama hin gaafatu.					

No.	Ibsaa Yaadotaa	BH (1)	WH (2)	GG (3)	WG (4)	BW (5)
304	Ibsa itti fayyadama tajaajila Elektrooniik Baankii hubachuun salphaa dha.					
305	Karaa Elektrooniik Baankii tajaajila Baankii argachuuf beekumsa hin barbaachisu.					

306	Tajaajilli Elektrooniik Baankiin salphaa waan ta'eef fayyadamaa tajaajila kanaa ta'uun filannoo kooti.					
307	Qajeelfama tajaajila Moobaayila Baankii fi ATM hubachuun ni cima.					
308	Elektrooniik Baankii fayyadamuuf gargaarsa eenyuullee nun barbaachisu.					
309	Qajeelfama itti fayyadamiinsa Elekroniik Baankii hubachuun ni cima.					
4. Amantaa						
401	Elektrooniik Baankii amanamaa dha.					
402	Tajaajila Elektrooniik Baankii ittisa giddu gala odeeffannoo cimaa qaba jedhee hin yaadu.					
403	Tajaajilichi amansisaafii kan sadarkaa isaa eeggatee miti.					
404	Baankiin hattoota irraa sirnaan of eeguudhaaf teeknoolojii ittisa cimaadhaan deegarama jedhee hin yaadu.					
405	Elektrooniik baankiin icciitii odeeffannoo maamiltootaa eeguurratti shakkiin qaba.					
5. Beekumsaa fi Itti Fayyadamiinsa						
501	Faayidaa tajaajillicha hanga tokko beekaa.					
502	Tajaajilichi maamiltoonni tajaajila Baankii si'ataa argachuuf kan isaan dandeessisuu dha.					
503	Yeroo baayy'ee Elektrooniik Baankiitiin hin fayyadamu.					
504	Tajaajilli Elektrooniik Baankii maamiltotaaf faayidaa fi bu'aa baay'ee qaba.					
505	Tajaajilichii odeeffannoo maamiltootaa sirnaan eeguudhaaf giddu gala ittisa cimaatiin ni deegarama.					
506	Tajaajilii Elektrooniik baankiin isaa idilee caalaa teeknoolojii amaya'aa fayyadama.					

No.	Items	BH (1)	WH (2)	GG (3)	WG (4)	BW (5)
6. Argamaa fi Dhiheesaa						
601	Elektrooniik Baankiin maamiltoonni akka itti fayyadamaniif teeknoolojii gargaarudha.					
602	Tajaajili ATM ykn Moobaayil Baankii sababaa intarneetiin ciccituuf faayadamuuf nama rakisa.					
603	Torban guutuu sa'a 24f tajaajila baankii argachuun ni danda'ama.					

604	Moobaayil Baankiis ta'ee ATMn yeroo baay'ee hin hojjetu.					
605	Maashinin ATM iddoo baay'eetti argama.					
7. Hubannoo Tajaajila Elektrooniik Baankii						
701	Maamiltoni fayyadamaa tajaajila Moobayila Baankii ykn ATM ta'uuf beekumsa ga'aa qabu.					
702	Baankonni itti fayyadama Moobayili Baankii ykn ATM irratti maamiltotaaf deegarsaa fi hubannoo ni kennu.					
703	Moobayil Baankii ykn ATM ibsa itti fayyadama qooqaa tokkoo ol qaba.					
704	Faayidaa Elektrooniik Baankii karaa Midiyaa tamsaasa biyya keessaatiin ni beeksifama.					
705	Baankoonii odeefanoo fayadamtootaa Elektrooniik Baankii sirnaan eeguuf giddu gala odeffannoo ittisa cimaadhaan deegaramu.					
8. Gargaarsa Oggeessotaa						
801	Baankiin itti fayyadama Elektrooniik Baankii irratti maamiltotaaf deegarsa ni godha.					
802	Baankiin maamiltoonni Elektrooniik Baankiitiin fayyadamuun kaffaltii maallaqaa akka raawwatan ni jajjabbeessa.					
803	Tajaajila Elektrooniik Baankiitiin tajaajila baankii guutuu ta'e argachuun ni danda'ama.					
804	Qajeelfama tajaajilamtoota dira-gatsii baankii irraa argachuun ni danda'ama.					

Galatoomaa!!!

ክፍል 2: መሰረታዊ ጥያቄዎች

1- ከሚከተሉት የየትኛው ባንክ ደንብኛ ናት ?

- ሀ- የኢትዮጵያ ንግድ ባንክ ለ- ዳሸን ባንክ ሐ- አዋሽ ባንክ መ- አቢሲኒያ ባንክ
 ሠ- ሕብረት ባንክ ረ- የአሮሚያ ህብረት ሥራ ባንክ ሸ- ወጋገን ባንክ

2- የኤሌክትሮኒክ ባንክ ተጠቃሚ ናት? ሀ- አዎ ለ- አይደለም

3- ለጥያቄ ቁጥር 2 መልሶ አዎ ከሆነ በይበልጠ የየትኛው የኤሌክትሮኒክ ባንክንም አገልግሎት ተጠቃሚ ናት?

ሀ- ኤቲኤም ለ- ጥባይል ባንክንም ሐ- ኢንተርኔት ባንክንም መ- የክፍያ መፈጸሚያ ማሸን / ፖስ /

ክፍል 3: የኤሌክትሮኒክ ባንክንም አገልግሎት በደንበኞች ቅበላ ላይ ያሉ ተፅዕኖ ፈጣሪ ኩነቶች::

በዚህ ክፍል የኤሌክትሮኒክ ባንክንም አገልግሎት ቅበላን በተመለከተ በደንበኞች ላይ ተፅዕኖ ሊፈጥሩ የሚችሉ መንስኤዎች ተዘርዝረዋል:: እርስዎም ከእያንዳንዱ ሃሳብ በምን ያህል ደረጃ እንደሚስማሙ በስተቀኝ ካሉት ሳጥኖች ውስጥ በአንዱ ላይ ብቻ ይህን (✓) ምልክት በማኖር ምላሽ ይሰጡ::

- 1: በከፍተኛ ደረጃ አልስማማም (አል) 2: አልስማማም (አ) 3: ገለልተኛ (ገ) 4: አስማማለሁ (እ)
 5: በከፍተኛ ደረጃ አስማማለሁ (ከአ)

ተ.ቁ	የንድፈ ሃሳብ መለኪያዎች	አል	አ	ገ	እ	ከአ
1. በአገልግሎት ላይ ያለ ስጋት						
		1	2	3	4	5
101	የኤሌክትሮኒክ ባንክንም አገልግሎት አስተማማኝ ነው::					
102	የኤሌክትሮኒክ ባንክንም አገልግሎት አብዛኛውን ጊዜ ለተለያዩ የመጭበርበር አደጋዎች ተጋላጭ ነው::					
103	ኤሌክትሮኒክ ባንክንም አገልግሎት የደንበኛን የግል መረጃ በመጠበቅ አስተማማኝ አይደለም::					
104	የኤሌክትሮኒክ ባንክንም አገልግሎት የደህንነት ቁጥጥር የላላ ነው::					
105	ኤሌክትሮኒክ ባንክንም ብዙ ጊዜ የሲስተም ችግር አለው::					
106	በኤሌክትሮኒክ የተደገፈ የባንክ አገልግሎት ስንጠቀም ለሚፈጠር ስህተት ባንኩ ቶሎ ማስተካከያ አይሰራም::					
107	ኤሌክትሮኒክ ባንክንም ምቹ እና ከአጭበርባሪዎች አደጋ የተከለለ ነው::					
108	ኤሌክትሮኒክ ባንክንም አገልግሎት በመጠቀም ገንዘብ ዝውውር በሚከናወንበት ወቅት ለሚፈጠር ስህተት ለማስተካከል ቀላል ነው::					
109	ሰርገቦች የኤሌክትሮኒክ ባንክንም አገልግሎት ተጠቃሚዎችን የባንክ ሂሳብ መረጃ በቀላሉ መጠቀም ይችላሉ::					

110	በአጠቃላይ በኤሌክትሮኒክ ባንኪንግ አገልግሎት ላይ እምነት የለኝም።					
2. የአገልግሎቱ ጠቀሜታ						
		1	2	3	4	5
201	በኤሌክትሮኒክ በተደገፈ የባንክ አገልግሎት መጠቀም ከመደበኛው በተሻለ ፈጣን የአገልግሎት ዘዴ ነው።					
202	ኤሌክትሮኒክ ባንኪንግን በመጠቀም ቀላልና ፈጣን የሆነ የባንክ አገልግሎትን ማግኘት ይቻላል።					
203	ደንበኞች የትኛውንም የባንክ አገልግሎት በቀላሉ እንዲያገኙ ያስችላል።					
204	ደንበኞች የእጅ ስልካቸውን በመጠቀም ለሦስተኛ ወገን ክፍያ መክፈል እንዲችሉ ይረዳል።					
205	ኤሌክትሮኒክ ባንኪንግ ዘዴ የትኛውንም ክፍያ ለመፈፀም ተመራጭ ነው።					
206	የኤሌክትሮኒክ ባንኪንግ ዘዴ የትም ቦታ ይሁን በማንኛውም ሰዓት ቀሪ ሂሳብ ማየት እና የባንክ አገልግሎት ማግኘት ያስችላል።					
207	ኤሌክትሮኒክ ባንኪንግ ዘዴን በመጠቀም በፍጥነት እና ምቹ በሆነ መልኩ የባንክ አገልግሎትን ማግኘት እንደምችል አምናለሁ።					

3. የአጠቃቀም ቅለት						
		1	2	3	4	5
301	ኤሌክትሮኒክ ባንኪንግ አገልግሎትን መጠቀም ቀላል እና የማያስቸግር ነው።					
302	የኤሌክትሮኒክ ባንኪንግ ዘዴን በመጠቀም በቀላሉ የሂሳብ እንቅስቃሴ ማከናወን ይቻላል።					
303	ኤሌክትሮኒክ ባንኪንግ ለመጠቀም ብዙ ጥረትም ሆነ ሞያዊ ክህሎት አያስፈልገውም።					
304	የኤሌክትሮኒክ ባንኪንግ አጠቃቀም መመሪያዎች ለመረዳት ቀላል ናቸው።					
305	የተለያዩ ክፍያዎችን በኤሌክትሮኒክ ባንኪንግ ለማከናወን ብዙ እውቀት አይጠይቅም።					
306	ኤሌክትሮኒክ ባንኪንግ አሰራር ቀላል ከመሆኑ የተነሳ ለመጠቀም እመርጣለሁ።					
307	ሞባይል ባንኪንግ ሆነ ኤቲኤም ለመጠቀም የአጠቃቀም መመሪያውን በቀላሉ ለመረዳት አስቸጋሪ ነው።					
308	የኤሌክትሮኒክ ባንኪንግ አገልግሎትን ያለማንም እርዳታና እገዛ መጠቀም ይቻላል።					
309	ኤሌክትሮኒክ ባንኪንግ የአጠቃቀም ዘዴ የተወሳሰበ እና በቀላሉ ለመረዳት የሚከብድ ነው።					
4. በአገልግሎቱ ላይ ያለ አመኔታ						
		1	2	3	4	5
401	የኤሌክትሮኒክ ባንኪንግ መጠቀም ያስተማምናል።					
402	ኤሌክትሮኒክ ባንኪንግ በአገልግሎቱ የደህንነት ከለላ ላይ አመኔታ የለኝም።					
403	አገልግሎቱ አስተማማኝና የተዋጣለት አይደለም።					
404	ባንኮች ከሰርህ ገብ አስፈላጊውን የጥንቃቄ ከለላዎችን ለማድረግ አቅም አላቸው ብዬ አላምንም።					
405	ኤሌክትሮኒክ ባንኪንግ አሰራር የደንበኞችን የግል መረጃ በሚስጥር መያዙ ላይ ጥርጥሬ አለኝ።					

5. በአገልግሎቱ ዙሪያ ያለ ተሞክሮና ልምድ						
		1	2	3	4	5
501	በኤሌክትሮኒክ ባንኪንግ መገልገሌ ያለውን ጥቅም እምብዛም አላውቅም፡፡					
502	ደንበኞች የተለያዩ የባንክ ፍላጎትን ለማከናወን የኤሌክትሮኒክ ባንኪንግ አገልግሎት መጠቀም ምቹ ነው፡፡					
503	አገልግሎቱን የመጠቀም ልምድ ብዙም የለኝም፡፡					
504	ኤሌክትሮኒክ ባንኪንግ ለደንበኞች የተለያዩ ጠቃሚ አገልግሎቶችን ያስገኛል፡፡					
505	ኤሌክትሮኒክ ባንኪንግ አገልግሎት የደንበኞችን የግል መረጃ በመጠበቅ ረገድ ህጋዊ ከለላ ያደርጋል፡፡					
506	ከመደበኛው የባንክ አገልግሎት በተሻለ የኤሌክትሮኒክ ባንኪንግ ከተለያየ የመጭበርበር አደጋዎች ያድናል፡፡					

6. የኤሌክትሮኒክ ባንኪንግ አገልግሎት ማቅረቢያ መዳረሻዎች						
		1	2	3	4	5
601	የኤሌክትሮኒክ ባንኪንግ አገልግሎት ማቅረቢያ መንገዶች ለማህበረሰቡ በብዛት ተደራሽ ናቸው፡፡					
602	አቶማቲክ የገንዘብ መክፈያ /ኤ.ቲ.ኤም/ ሆነ የሞባይል ባንኪንግ አገልግሎት በቂ የኢንተርኔት ካለመዳረስ የተነሳ ለመጠቀም ይቻላል፡፡					
603	የኤሌክትሮኒክ ባንኪንግ ሳምንቱን ሙሉ 24 ሰዓት በመጠቀም መሰረታዊ ተግባራትን ለማከናወን ያስችላል፡፡					
604	አቶማቲክ የገንዘብ መክፈያ /ኤ.ቲ.ኤም/ ሆነ የሞባይል ባንኪንግ አብዛኛውን ጊዜ አገልግሎት አይሰጥም፡፡					
605	አውቶማቲክ የገንዘብ መክፈያ ማሽን/ኤ.ቲ.ኤም/ በአብዛኛው ቦታ ይገኛል፡፡					

7. በአገልግሎቱ ላይ ያለ ግንዛቤ						
		1	2	3	4	5
701	አቶማቲክ የገንዘብ መክፈያ /ኤ.ቲ.ኤም/ ሆነ የሞባይል ባንኪንግ የመጠቀም በቂ እውቀት አለኝ፡፡					
702	ባንኮች ተከታታይ የሆነ የአቶማቲክ የገንዘብ መክፈያ /ኤ.ቲ.ኤም/ እና የሞባይል ባንኪንግ አጠቃቀም ስልጠና ለደንበኞች ይሰጣሉ፡፡					
703	አቶማቲክ የገንዘብ መክፈያ /ኤ.ቲ.ኤም/ እና የሞባይል ባንኪንግን ከአንድ በበለጠ ቅንቻ መጠቀም ይቻላል፡፡					
704	ስለ አገልግሎቱ በሀገር ውስጥ የመገናኛ ብዙሃን ማለትም በብሔራዊ ቴሌቪዥን ጣቢያ፣ በህትመት ውጤቶች እና በበራሪ ወረቀቶች አማካኝነት የግንዛቤ ማስጨበጫ ስራ ይሰራል፡፡					
705	የባንኩ ድህረ-ገፅ ለኤሌክትሮኒክ ባንኪንግ አገልግሎት ደንበኞቹ አስፈላጊ የሆነ የጥንቃቄ ከለላ ያደርጋል					

8. ስለ አጠቃቀሙ የሚደረግ ሞያዊ ድጋፍ						
		1	2	3	4	5
801	የኤሌክትሮኒክ ባንኪንግን እንድንጠቀም በባንኮች በኩል ግንዛቤ እና ድጋፍ ይደረጋል፡፡					
802	የተለያዩ ግዢዎችንና ክፍያዎችን በኤሌክትሮኒክ ባንኪንግ ዘዴ እንድንጠቀም ባንኮች ያበረታቱናል፡፡					
803	በኤሌክትሮኒክ ባንኪንግ በመጠቀም ሙሉ የባንክ አገልግሎትን ለመጠቀም ያስችላል፡፡					

804	ባንኮች የኤሌክትሮኒክ ባንኪንግ መተግበሪያ መመሪያዎችን አልዋቸው።					
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አመሠግናለሁ!!!