



**ST. MARY'S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

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**FACTORS AFFECTING THE ADOPTION OF  
INTERNET BANKING BY CUSTOMERS OF  
COMMERCIAL BANKS IN  
ADDIS ABABA**

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**BY**  
**G/TSADEK G/MEDHIN ABAY**

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*JUNE, 2017*  
*ADDIS ABABA, ETHIOPIA*

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**FACTORS AFFECTING THE ADOPTION OF INTERNET  
BANKING BY CUSTOMERS IN ADDIS ABABA  
(THE CASE OF SOME SELECTED BANKS)**

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**ID. No MBAAF/0427/2008A**

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**ST MARY'S UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
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## Declaration

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

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St. Mary's University, Addis Ababa

June, 2017

## **ENDORSEMENT**

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

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**Advisor**

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**Signature**

**St. Mary's University, Addis Ababa June, 2017**

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## **List of Abbreviations and Acronyms**

**CBE**      **Commercial Bank of Ethiopia**

**DB**      **Dashen Bank**

**ABB**      **Abay Bank**

**UB**      **United Bank**

**ZB**      **Zemen Bank**

**AIB**      **Awash International Bank**

**NIB**      **Nib International Bank**

### **Abstract**

*Internet banking is defined as a system that enables bank customers to get access to their accounts and the general information on bank products and services through the use of bank's website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations. The study aimed at exploring the factors affecting the adoption of internet banking by customers in selected Banks in Addis Ababa. To achieve this purpose, explanatory study design used to analyze the data collected through cross-sectional survey questionnaire from a sample of 300 bank customers. These respondents were selected using convenience sampling. The data collected from the questionnaire were analyzed using Statistical measure which is correlation analysis. The major findings of the study include the four internet banking factors i.e., perceived ease of use, perceived usefulness, culture and attitude and intention to use internet banking found to be positively and significantly related. IT indicates that perceived risk is the most important factor to have a strong, negative and significant relationship with intention to use internet banking. In addition to this, all of the factors affecting internet banking in this research significantly explain the variations in intention to use internet banking. However, except perceived risk, which statistically and negatively predicts the variation in intention to use, the four factors affecting internet banking i.e. perceived ease of use, perceived usefulness, culture and attitude statistically and positively predict the variation in intention to use. Based on the findings of the study, it is recommended that Banks should concentrate on their corporate websites to make it more user-friendly since customers should perceive it as easy to use. They can also educate how to use Internet banking services to customers and Banks should install security features such as encryption devices, which safeguard sensitive information.*

**Key words:** *Electronic banking, internet banking, perceived usefulness, attitude, culture, intention to use, perceived ease of use and perceived risk*

## **CHAPTER ONE: INTRODUCTION**

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

The definition of Internet banking varies amongst researchers because Internet banking refers to several types of services through which a bank customer can request information and carry out most retail banking services via computer (Daniel, 1999; Sathye, 1999). Pikkarainen,T., Pikkarainen, K., Karjaluoto, H., and Pahaila,S (2004) also defines Internet banking as an "internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments".

Internet banking refers to the systems that enable bank customers to get access to their accounts and the general information on bank products and services through the use of bank's website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations. It is the type of services through which bank clients can request information, and carryout most retail banking services such as balance inquiry, inter account transfer, bill payments within the comfort of their homes or organization (Hanemman, 1984).

According to Ruth (2016) When the term "online banking" initially gained popularity in the late 1980s, the phrase referred to the use of a terminal, keyboard and television or computer monitor to access one's bank account using a landline telephone. Now the online banking definition, or internet banking definition, includes any electronic payment system that allows customers of a financial institution to conduct financial transactions through the financial institution's website. Today, online banking services include mobile internet banking technology, such as person-to-person payment Smartphone apps and text banking. The early version of what was considered online banking began in 1981. New York City was the first place in the U.S. to test out the

innovative way of doing business by providing remote services as four of its major banks — Citibank, Chase Manhattan, Chemical Bank and Manufacturers Hanover — made home-banking access available to their customers. Throughout online banking history, customers have been slow to adopt this new method of banking. In 1981, customers didn't take to the new initiative, so the online banking system failed to gain momentum until the next wave of innovation in the mid-1990s.

In October 1994, Stanford Federal Credit Union became the first financial institution in the U.S. to offer internet banking to all of its customers. A year later, Presidential Bank became the first bank in the country to offer customers access to their accounts online. Internet banking systems began to catch on as many other banks soon followed Presidential Bank's lead. At the same time, the now-defunct Security First Network Bank became the first dedicated online bank in the U.S. SFNB opened its virtual doors for business with basic offerings for national online banking, including no-fee checking and an ATM card.

The evolution of internet banking continued with the first truly successful internet-only bank: NetBank was founded in 1996 and closed in 2007. The NetBank name and domain were acquired by BofI Federal Bank in 2012. Bank of Internet USA was officially founded as part of the incorporation of BofI Holding, Inc. on July 6, 1999, making it America's oldest internet bank; it opened for business on July 4, 2000 (Ruth, 2016)

Banking sector has been highly dependent and sensitive to change in information technology (IT). Since it acquires process, and delivers the information timely to all relevant users. IT is not only critical to process information; it also provides a way for the banks to differentiate their products and services (Sara, 2008). Continuous technology development, particularly information

technology revolution, of the last two decades of the 20th century has forced the banks to embrace Internet Banking as a strategy for their sustainable growth in an expanded competitive environment. Internet banking has made the financial transactions easier for the participants and has introduced wide range of financial products and services. Internet has changed the operations of many businesses, and has been becoming a powerful channel for business marketing and communication (Bisrat, 2015)

When we come to Ethiopia the history of modern banking goes back to 1900 when an agreement was reached in 1905 between Emperor Minilik II and Mr.MaGillivray, representative of the British owned National Bank of Egypt. Currently as per National Bank of Ethiopia data there are 16 private and 2 state owned banks. Out of these 18 banks, the state owned commercial Bank of Ethiopia (CBE) is the largest and leading bank in financial operations. On the other hand, the appearance of E-banking in Ethiopia goes back to the late 2001, when the largest state owned, commercial bank of Ethiopia (CBE) introduced ATM to deliver service to the local users. Electronic banking facilities provided by most Ethiopian Banks are very basic. However e-banking facilities provided are at par with those in the region. (Mhammed, 2012)

Many researchers argue that one of the main determinants for the development of internet banking is the level and quality of information technology in a country. The Ethiopian government considers ICT as an indispensable tool to alleviate poverty and facilitate a state-transformation aiming an effective and efficient service delivery. It has initiated commendable ICT policy frameworks and several E-Government projects, including the Woreda NET Project (ITU4D, 2006).

Banking in Ethiopia faces numerous challenges to fully adopt and adapt E-Banking applications and seize the opportunities presented by ICT applications in general. Key Challenges for E-Banking applications are: Low level of internet penetration and poorly developed telecommunication infrastructure: Lack of infrastructure for telecommunications, Internet and online payments impede smooth development and improvements in e-commerce in Ethiopia (ITU4D, 2006). So the main purpose of this study was to examine the factors affecting customers' intention to adopt this service.

## **1.2. Statement of the Problem**

Several researches have shown that over the last few decades the information technology in general the internet banking in particular, has significantly affected the banking sector development across the world. Currently internet banking has provided a variety of benefit to banking business since it will enable banks to differentiate their service and product as well as minimizing their operating costs (Mohammed, 2011).

When we see the experience of other countries in relation to factors affecting the adoption of internet banking, for instance, Chun (2012) had conducted exploratory study into the adoption of internet banking in mainland China which collected data from two public universities in Shandong Province established trust was one of the important influential factors affecting an individual's intention to adopt internet banking. These findings validated prior studies that have found trust as one of the important factors in intention to adopt internet banking. In another study conducted by Shah, Ahmad, Sayyed and Bin (2007) on the factors affecting internet banking adoption in the manufacturing companies in Malaysia. The findings established that security or confidentiality was taken as additional factor in the adoption of the technology besides relative advantage and

compatibility which have a significant influence.

Metwally (2013) also conducted a study on ‘‘the assessment of Users’ Acceptance of internet banking, an Empirical Case of Egypt’’. The results show that the main factor, which affected banks customers' decision to use internet banking service, was ease of use, followed by usefulness and trust and credibility of the service. Other external factors such as personal innovativeness, individual differences, computer and Internet use experience, promoting circumstances and service assistance, and communication, which determined the three antecedents, were applicable and valid in explaining users' adoption.

When we come to Ethiopia even though e-banking has grown quickly worldwide, commercial banks still conduct most of their banking transactions using traditional teller based methods (Yitbarek & Zeleke, 2013). Banking operation is still under developed due to low level of infrastructural development, lack of suitable legal and regulatory framework, high rates of illiteracy, frequent power interruption and security issues (Gardachew, 2010).

Gardachew (2010) also indicated that even though electronic Banking has been widely used in developed countries and is rapidly expanding in developing countries, in Ethiopia cash is still the most dominant medium of exchange, and electronic payment systems are at an embryonic stage. He also stressed that in the face of rapid expansion of electronic payment systems throughout the developed and the developing world, Ethiopia’s financial sector cannot remain an exception in expanding the use of the system. Certainly the banking industry in Ethiopia is underdeveloped and therefore there is an all immediate need to embark on capacity building arrangements and modernize the banking system by employing the state of the art of technology being used anywhere in the world. Moreover, Internet banking is a new technology in Ethiopia which needs a



lot of effort and resources to be easily adopted by customers. Hence, in order to help banks improve Internet banking adoption by their customers, it is necessary to examine factors that influence customers' intention to adopt Internet banking service channels. In addition many of the researches that have been conducted did not consider culture (social norms) as a factor. But in countries like Ethiopia, people are greatly influenced by culture. This research was conducted to fill this gap and focuses on the factors that influence customers' internet banking adoption in Ethiopian banking industry especially the impact of culture (social factor). The study also examine if the results and findings are similar to previous studies.

### **1.3. Research Questions**

This study tried to answer (address) the following research questions;

- What are the factors affecting the adoption of Internet banking services by individuals for banking transaction?
- What is the relationship between the factors that drive the adoption of internet banking?
- To what extent do the internet payment arrangements affect the use of internet banking services?

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

The aim of the study was accomplishing the following objectives:

#### **1.4.1 General Objective**

The main objective of this research was to investigate the factors affecting the adoption of internet banking in Addis Ababa.

### **1.4.2 Specific Objectives**

In addition to the general objective, the study has the following specific objectives:

- Investigate the factors affecting the adoption of Internet banking services by individuals for banking transaction.
- Establish the relationships between the factors that drive the adoption and acceptance of the services.
- Determine the factors that have strong relationship with the adoption of Internet banking services.

### **1.5. Significance of the Study**

The major contribution of this study is to identify the factors that would affect the consumers' adoption of Internet banking services by consumers in Addis Ababa. That is, to identify the most important factors that are associated with the adoption of Internet banking services. This helps banks to develop a better strategy which attracts new customers as well as to retain the existing Internet banking services users. Besides, it also helps them to identify their strength, weakness, threat and opportunities in relation to their objectives. Banks may know the customers satisfaction and perception toward Internet banking services. However, Understanding those factors influencing to adopt Internet banking services is very important because it helps them to improve their service performance, further, it strengthen the relationship between banks and customers in order provide better services, and contribute in future developments.

This study enables banks to strategically plan their products and service offerings. This study has significant contribution to the further researches that will be conducted in Ethiopia related to this

topic, to the banking industry and policy makers.

## **1.6. Scope of the Study**

The study was delimited to a section of the factors affecting internet banking (perceived ease of use, perceived usefulness, perceived risk, attitude and culture or social factor) and intention to use among customers in Addis Ababa in seven (7) commercial banks. This research was conducted in Addis Ababa by collecting data from customers of the entire seven sample (private and government owned) commercial banks providing internet banking services. The findings of the research were generalized to customers in Addis Ababa who are using Internet banking services. Further, the paper examines a relative amount of bank customers that operate E-banking system.

## **1.7. Organization of the Study**

This paper contains five main chapters. Chapter one provides the general back ground of the study, chapter two summarizes the related literature review, chapter three presents the methodology of the study, and chapter four presents the analysis and interpretation of the study. The last chapter provides summary of findings, conclusion, research contributions and recommendation.

## **CHAPTER TWO: REVIEW OF RELATED LITERATURE**

### **2.1 Theoretical Literature Review**

#### **2.1.1 Basics of Electronic Banking.**

Electronic banking is a higher order structure composed of several distribution channels. Please note that e-banking is just a bigger platform than banking over the internet. However, today's most common type of e-banking is banking through the Internet, or Internet banking. The term electronic banking can be explained in many ways. In a very simple form, it means that customers provide information and services to banks via computers, televisions, telephones and mobile phones (Daniel, 1999). For example, Burr (1996) describes it as an electronic connection between a bank and a customer to prepare, manage, and manage financial transactions. Internet banking allows consumers to access their banks and accounts and conduct banking transactions.

Since Internet banking involves providing facilities such as access to accounts, transfer of funds, online purchase of financial products and services (Sathye, 1999), at an advanced level it is called transactional online banking. Terms such as Internet banking and online banking are often used in literature to refer to the same thing. Today, the Internet is the main channel of e - banking.

Furthermore, it is said that there are three different means of distribution in electronic banking: telephone, PC, and the Internet. For example, Daniel (1999) has introduced four different channels for electronic banking: PC banking, Internet banking, managed network, TV base banking. It is important to remember that Internet banking is different from PC home banking. The obvious difference is that while Internet banking is browser-based, in PC home banking, customers need to install software packages assigned to banks on PCs.

In addition, with PC home banking, customers can perform banking operations only on PCs that have assigned software packages installed (Karjaluoto et al. (2002a) , Suggesting that it is the Internet accessed via a personal computer.

Telephone banking, TV-based banking, and managed networks do not play a major role in today's banking. However, in the future, it is expected to shift from wired Internet connection to wireless mobile technology. Therefore, electronic banking does not necessarily have to be on the screen of the computer. This can be, for example, on a small screen of a cell phone or any other wireless device. With these wireless applications, customers can view bank account balances and transaction history, display pie charts of stocks in the portfolio, initiate payment, order purchase orders for securities, you can send e-mail.

In this way, with the e-banking technology, banks and financial institutions have improved the effectiveness of distribution channels by reducing transaction costs and improving service speed. Electronic banking is the application of information technology to facilitate information and services via public standards based networks. There are various forms like electronic banking. Internet banking, mobile banking, telephone banking. There is a misunderstanding between e-banking and Internet banking. However, E-banking is a broad field, Internet banking is E banking service.

### **2.1.2. Internet Banking**

Internet banking means that banking services such as service introduction, loan application, account balance inquiry, fund transfers, etc. are provided from the bank through the Internet. Internet banking has evolved into a "one step service and information unit" that brings great

benefits to both banks and consumers. According to Michael Karlin, president and chief operating officer of the world's first virtual bank Security First Network Bank, the idea of Internet banking is as follows:-

- All transactions are done on a bank server on the Internet infrastructure so you do not need to purchase software, save data to your computer, or back up information.
- Banking services can be used 24 hours a day, 7 days a week, 365 days a year. It is no longer necessary to verify bank statements or to manually track ATM and paper checks.

In addition, Internet banking is defined as a banking service that enables customers to access their bank accounts from a computer connected to the Internet on a bank's website to conduct financial transactions. The evolution of Internet banking from e-commerce has changed the nature of the relationship between individuals and customers and the provision of products and services in the banking industry.

Pikkarainen et al. (2004) defines Internet banking as "Internet portal" so that customers can use various kinds of banking services from bill payment to investment. With Internet banking, with the exception of withdrawals, you can access almost all kinds of banking transactions simply by clicking the mouse. When introduced for the first time, Internet banking was mainly used as an information providing medium for banks to sell goods and services on their website. However, with the development of technology and secure electronic trading technology, banks have started to use Internet banking as a transaction and information medium.

Syed et al. (2011) stated that the emergence of Internet banking first started in the 1980s, but grew worldwide in the 1990s, Europe became the leader in the use of Internet banking. Internet banking is beneficial for both providers and customers. At the moment, it can be regarded as the least

expensive distribution channel for standardized bank management, such as account services and transfer of funds (Polasik & Wisniewski, 2009). Such services also have the advantage of saving the time and expense of the bank and minimizing the possibility of causing errors at the bank counter. Regardless of geographical and temporal terms, Internet banking offers a service for customers conveniently (Padachi et al., 2008).

According to Lu (2010), the banking business is no longer bound by time and geography service without border. Customers can access the account relatively easily (24 hours a day, 7 days a week). Sara (2008) argues that traditional banks benefit from this technology and can take care of customers in a more efficient, productive and enjoyable way

### **2.1.2.1 Roles of Banks in Internet Banking**

To develop Internet banking for customers, banks need to improve seriously to cope with consumer fears and concerns. Also, as both parties benefit from it at the end, it is also essential for banks to understand the factors that will allow customers to adopt Internet banking. Ozelman (2012) states that banks have two major roles:-

- Provide access to traditional banking products via the Internet. Traditional banking products are services provided by banks, such as deposits, cash transfers, inquiries of account balances. Customers using Internet banking need to provide customers with as many services as possible using Internet banking.
- We support the development of new products enabling Internet banking. This means that the bank should support companies involved in the invention of new technologies for manufacturing new products that make banking available in a convenient and easy way.

This means that as the number of new products that customers allow for Internet banking increases, the adoption of Internet banking services will increase

### **2.1.2.2 Role of Customers in Internet Banking**

The main role of the customer is to benefit from Internet banking as much as possible. Also, if the convenience and effectiveness of the online service is greater than the personalized branch network service, the customer must be eager to move to online financial services. These frequently use internet banking, meaning that if you benefit from it, the bank will be started to improve or maintain the service. They are also responsible for commenting on the service after the parties have finally benefited (Abnet, 2010).

### **2.1.3 The benefits of internet banking to banks and customers**

The emergence of the Internet has great influence on the spread of Internet banking. With the help of the Internet, banks are no longer bound by time or geography. Consumers around the world can access the account relatively easily, 24 hours a day, 7 days a week. Therefore, Internet banking brings many benefits to banks and their customers (Karjaluo, 2002)

#### **2.1.3.1 Benefit of Internet Banking for Banks**

Internet banking has the advantage that banks maintain competition, save money, strengthen mass customization, strengthen marketing and communication activities, maintain and attract consumers (Daniel, 1999). In addition, Maduku (2013) expands its business geographically even small banks by consistently existing banks on the Internet, except that it is a low-cost advertisement around the world New branch without obliging large investment. Several benefits of strong Internet banking services include customer satisfaction and maintenance, attracting new



customers, developing customer relationships, expanding sales and market share, improving corporate image, efficiency, improving customer service and satisfaction , Improve profit margin Business performance Internet banking service is essential for the long-term survival of banks in the world of e-commerce.

According to a survey by Sadullah (2007), Burnham found that most banks with websites spend less than \$ 25 thousand to create Web presence, maintaining less than 25 thousand dollars per year I found out that there was. Bernham had said that these figures would rise as banks began offering Internet banking services, but it did not cost more than traditional banking methods.

#### **2.1.3.2 Benefit of Internet Banking for Customers**

Internet banking provides all services to customers, including services not provided in branches. The biggest advantage of Internet banking is that it is cheap or free to customers. However, the price seems to be one factor to counter Internet banking (Sathye, 1999, p. 333).

Internet banking is generally not limited by time or place. Also, it is claimed that electronic banks are more likely to change in response to customer's request (Brogdon, 1999, p. 4). Internet banking has the advantage that customers can reduce access to bank branches. In this way, Internet banking saves time and money, provides convenience and accessibility, and has a positive impact on customer satisfaction. Customers can manage banking operations when they need it, and can enjoy more privacy while interacting with banks.

Internet banking helps consumers to conduct quick and convenient financial transactions. This type of banking allows consumers to verify account balances, transfer funds and order electronic payment payments. The Internet banking system allows customers to apply for loans, trade shares

or mutual funds, even see the actual images of checks or deposit slips. With the help of the Internet, banks are no longer tied to time or geography. Consumers around the world can access the account relatively easily, 24 hours a day, 7 days a week.

Internet banking is claimed to offer more profit to customers at a lower cost (Maduku, 2013). He showed that internet banking is very beneficial to customers, including cost, time and space savings, prompt response to complaints, and improved service delivery.

In summary, general e-banking and Internet banking bring a lot of benefits to both service providers and their customers.

#### **2.1.4 Different types of internet banking**

Molla (2002, p. 2) defines Internet banking as a clear subset of electronic / online banking. It is widely defined as providing retail and small value added banking products and services through electronic channels. The definition of this e-banking includes various kinds of Internet banking.

- Internet banking using bank's own software. This form of online banking uses banks as "electronic gateways" in customer accounts. Customers can install this software on their home computer, transfer funds and electronically pay bills.
- Internet banking via personal computer using dial-up software. Here, customers use home banking software to link to banks for online banking.
- Internet banking by online service. Bank established a retail store on a subscriber-based online service like America Online.
- Internet banking via the World Wide Web. This form of online banking bypasses subscription-based services; banks are on the World Wide Web.

### **2.1.5 Customers and internet banking**

Lamb, et al. (2000, p.142) defines consumer behavior as an act of decision-making units (individuals as well as families) directly involved in obtaining and using products and services suited to their needs, Decide on these acts. These actions refer to activities such as entering and exiting stores, evaluating products and services available on the market, and actually purchasing goods.

Rice (1997, p. 78) Consumers are people who pay services for their expenses using services and products when referring to consumers. Consumer behavior is to learn about consumers and their purchasing behavior.

Schiffman and Kanuk (2000, p. 8) explains that "consumers" are used to represent two types of consumers, individual consumers or business consumers or organization consumers. Individual consumers are consumers who purchase goods and services for themselves and business consumers are consumers who purchase products, equipment and services to run business.

Block and Roering (1979, p. 132) defines the behavior of consumer goods as individual acts directly involved in the acquisition and use of economic goods and services. This includes the decision-making process for consumers to purchase goods. By better understanding consumer behavior, banks can identify customer profiles.

Beckett, others. (2000, p. 20) suggest that the type of financial product purchased has an impact on consumer purchasing behavior. Secondly, emphasizing trust and relationship is also very relevant to the strategy of banks and other financial institutions. Third, the ability to maintain customers and increase the profitability of customers is very important (Karialuoto, et al., 2002, p.

263). Individual differences in consumer behavior have been theorized and found to be related to the acceptance of new information technology such as Internet banking (Nelson, 1990, p. 85).

According to Wang (2002, p. 3), the advent of Internet banking created a highly competitive market environment that had a significant impact on consumer behavior. Therefore, Internet banking providers need to better understand the factors that affect consumer acceptance for Internet banking. If it succeeds, banks will influence consumer behavior and it will be a big challenge to create future competitive advantage.

## **2.2. Empirical Review of Related Researches**

Adoption of Internet banking has been particularly noted in academic research over the past few years and investigated the factors of introduction. In research on the adoption of individual Internet banking, two important theories are used by researchers. These theories are technical acceptance model (TAM) and planned behavior theory (TBP).

Nasri (2011) is investigating the determinants that accept Tunisian customers' Internet banking (IB). The purpose of this paper was to identify factors that affect the adoption of internet banking services in Tunisia. There were 253 respondents in Tunisia, 95 users of internet banks and 158 non-bank users of the Internet. Factor analysis and regression techniques were used to study relationships. As a result, the use of internet banking in Tunisia was shown to be most strongly affected by perceived convenience, perceived risk, security, and previous Internet knowledge. Only information on online banking did not affect the intention to use Internet banking services in Tunisia. This result also suggests that demographic factors have a major impact on the behavior of Internet banking. Finally, in this paper we recommended that banks implement a new security

policy, provide encryption and strong authentication, and provide a free demonstration computer course on using Internet banking for banking customers.

Braja (2005) conducted a survey to identify relevant factors that New Zealand bank customers will have in making decisions to use Internet banking. In this research we used TAM factors in addition to risk. As a result, it was shown that the ease of perceived use and the perceived usefulness have important relevance to the intended use. But risk is not important. This is contrary to other research results. This survey also shows that TAM has poor ability to explain the reasons for intention to use online banking services.

Perkins and Annan (2013) examined the factors that influence the adoption of online banking in Ghana. This study is based on TAM which is widely used in similar studies. Primary data was collected from randomly selected customers and analyzed using multiple regression analysis in SPSS. The results showed that the original constructs of TAM, ie perceived utility (PU), perceived ease of use (PEOU), and extension of government support. Trust and security was important to every customer's intention to adopt online banking.

Syed and Nida (2011) conducted a survey to investigate factors affecting the adoption of internet banking among internal and external customers in Pakistan. In this survey, we surveyed samples of 210 in-company and 151 external respondents, using surveys of survey surveys for customers both inside and outside. The internal customer was an employee of the bank being analyzed. Six hypotheses - convenience, perceived usefulness, information on online banking, Government support, perceived risks, and security and privacy. Next, we applied multiple regression techniques to internal and external data to investigate the relationships that exist among the factors for adopting the Internet banking service. As a result of the analysis, knowledge of Internet

banking, recognition of risk, security, privacy is greatly affecting external customers increasing the willingness to adopt Internet banking services, government support is Internet recruitment banking service.

For convenience of factors, if external customers never found convenience, they concluded that they would never adopt the service. Finally, researchers finally apply Internet banking by minimizing fraud by providing the information in the easiest way, providing more usefulness and benefits, and providing more security and privacy We should recommend that some consideration be given to it. This will help the banks increase profits by cutting costs, saving time and retaining more potential users. The findings that the information on Internet banking affects the adoption of Internet banking services is contradictory to the results of the aforementioned Nasri (2011).

Rakesh and Ramya (2014) studied the factors influencing consumer adoption in Internet banking in India. A new element "perceived credibility" was proposed to enhance the understanding of Internet banking's acceptance behavior with respect to consumer perceived security, privacy issues and consumer perceived risks. In addition to the recognized reliability, recognition level, perceived ease of use, and perceived utility, there were other factors. The above factors were hypothesized that it would have a positive impact on the adoption of customers and each other's Internet banking. Data for the survey was collected from 100 participants through a survey conducted in Mysore, India. Consumer awareness has been found to have a positive impact on recognized ease of use, perceived utility in Internet banking, perceived reliability. Perceived ease of use affects consumer impact of Internet banking. The perceived utility will have a positive impact on recognized ease of use, recognized credibility, and adoption of Internet banking

consumers. Perceived credibility has a positive impact on the adoption of Internet banking consumers.

Kent E et al. (2011) investigated customer acceptance of Internet banking in Estonia. Three factors were used to investigate what is affecting the use of customers' Internet banking. These are reliability, perceived utility, perceived ease of use. They recognized the usefulness and ease of use from the technology acceptance model and added trust as another factor. A quantitative survey was chosen to obtain data on the usage and attitudes of the Internet as a bank channel. We sent questionnaires to 9000 Bank customers in Estonia in order for customers to investigate the impact of the Internet Bank. Therefore, the findings suggest that Internet banking usage will increase if customers recognize it is useful. Recognized usefulness is central to determining whether the use of Internet banking is easily recognized will lead to an increase in the use of Internet banking. This means that well-designed, easy-to-use Internet banks cannot be used if you think they are not useful. Finally, they finally concluded that the recognized usefulness of Internet banking is an important factor for promoting customer use for banks. They also suggested that technologically acceptable models should be reconditioned to focus more on the important role of the recognized usefulness of services incorporated in the technology. They advised not only to make a user friendly Internet bank at the bank but also to make a tremendous effort to explain to the customer how the Internet bank is useful.

Safeena et al. (2011) will investigate customer views on the adoption of Internet banking in emerging Indian economies, using a convenient sample method for collecting student data for educational institutions through questionnaires. Research variables were recognition of utility, perceived risk, consumer acceptance, perceived ease of use. Factor analysis techniques were used

for this study. As a result, perceived usefulness, perceived ease of use, perceived risk are the most important elements for adopting online banking and have been shown to be useful for creating a strategy development process.

According to many surveys around the world, it has been shown that TAM variables are closely related to intention to utilize online banking services. The same can be said in Ethiopia. Zeleke and Yitbarek (2013) conducted a survey to analyze factors influencing decision making adopting the e-banking service channel in Bahir Dar city. In this study we used variables from behavior theory and technology acceptance model. As a result, that attitude became clear. Subjective norms, perceived behavioral control, recognized utility and perceived ease of use and perceived risk were significant in influencing the user's intent using the electronic banking service channel. This study also showed that in contrast to the TAM model, the recognized utility is not predicted by the perceived ease of use. This will be investigated in this study.

Studies by Mohammed (2012) contradict the relationship between Yitbarek and Zeleke (2013) research results and TAM variables. This survey was done to identify and understand factors that affect bank customers' use of electronic banking services. This research consolidates the technical acceptance model (TAM) with the theory of the planned behavior model (TPB), and proposes a theoretical model by incorporating the five cultural dimensions and perceived risks. Primary data was collected from 387 valid questionnaires and distributed to random banking customers of all 26 licensed banks in Jordan. Hypotheses were verified using multiple regression analyzes. This research rejects this hypothesis when the results of Zeleke and Yitbarek showed that the recognized usefulness has a positive influence on the attitude and will to use. On the other hand,



in this study Zeleke and Yitbarek 's research refuses it when ease of use confirms a positive effect on the recognized usefulness.

From the empirical studies discussed above, researchers came up with two research gaps. The first is that most research is conducted abroad. Therefore, more things should be considered in order to see factors influencing the adoption of Internet banking services in the context of Ethiopia. The second gap is that most of the research does not include cultures (social elements) as elements. Therefore, this study cited culture (social element) as one of external factors. This factor uniquely makes this research from other studies that have been carried out in Ethiopia, in particular Addis Ababa so far.

## **2.3. Theoretical Frame Work**

### **2.3.1. Theory of Reasoned Action**

The theory of contemplated activity is a broadly examined demonstrates from social brain science which is made out of attitudinal, social impact and goal factors to foresee variables (Fishbein and Ajzen, 1975). As it can be seen beneath in figure 2.1, it is estimated that behavioral expectation is together dictated by demeanor toward performing conduct and subjective standard. Demeanor is characterized as individual negative or positive feeling about playing out a particular conduct and can be dictated by one's conviction that playing out the conduct will prompt different results duplicated by the subjective assessment of those consequences (Davis, 1986). Subjective standard alludes to the individual recognition that the vast majority who are critical to him think he ought to or ought not to play out the conduct in question (Fishbein and Ajzen, 1975). The hypothesis of

contemplated activity additionally estimates that behavioral goal is the main direct influence of real conduct.

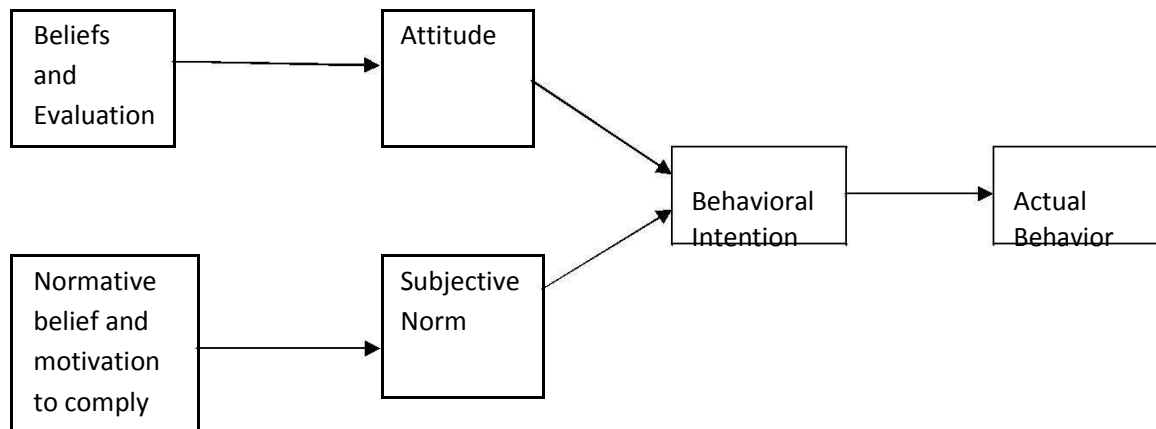


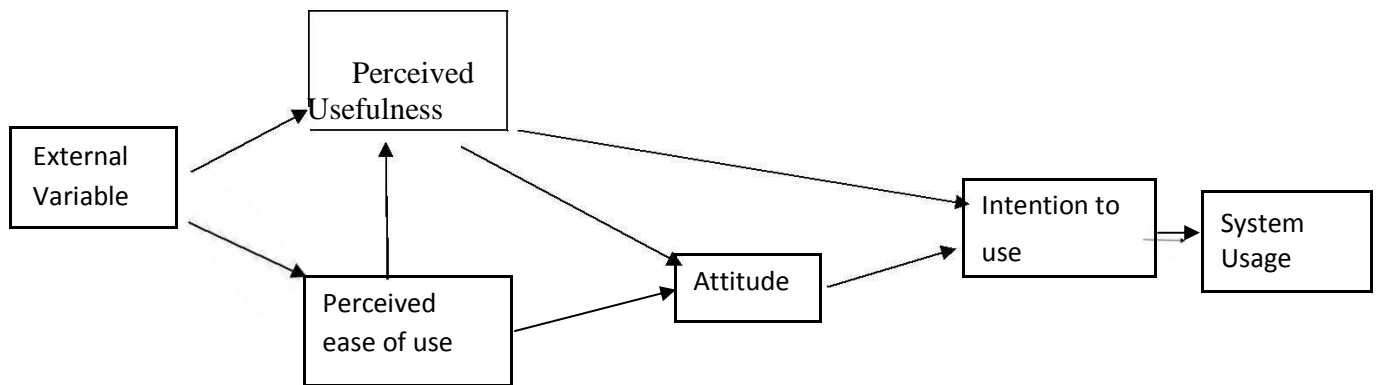
Figure 2.1 Theory of Reasoned Action. Source: Fishbein & Ajzen, 1975

### 2.3.2. Technology Acceptance Model

The Technology Acceptance Model (TAM), presented by Davis (1986), is an adjustment of the Theory of Reasoned Action (TRA) particularly altered for demonstrating client acknowledgment of data innovation (IT) (Davis 1986). Davis (1986) expressed that the primary objective of TAM is to clarify the determinants of IT acknowledgment over an expansive scope of data advances and client populaces. In addition, Davis (1986) recommended that acknowledgment of IT can be controlled by two essential builds: saw convenience and saw usability of the innovation. While anticipating the acknowledgment of data advances, TAM proposes the accompanying elements are critical: outer factors; convictions about data innovation (saw handiness and saw convenience), states of mind, behavioral goal, lastly, genuine IT utilize. Davis (1986) recommended that utilizing a data framework is straightforwardly controlled by the behavioral aim to utilize it, which is thusly affected by the clients' states of mind toward utilizing the framework and the apparent value of the framework. State of mind and saw convenience is

additionally influenced by the apparent usability. As per TAM, more noteworthy saw helpfulness and the apparent usability of a data framework will decidedly impact the disposition toward this framework. The demeanor thus prompts a more prominent expectation to utilize the framework, which decidedly influences one's real utilization of the framework.

As indicated by Davis et al. (1986), despite the fact that outside factors don't affect states of mind and behavioral aim to utilize, TAM underlies the crossing over part of convictions and demeanors between outer factors and behavioral expectation.



**Figure 2.2 Technology acceptance model**

## 2.4 Factors influencing customer's adoption of internet banking

### 2.4.1 Perceived Usefulness

According to Davis (1986), the perceived usefulness can be defined as "a degree of subjective belief that individuals use specific IT to improve their work performance." In other words, individuals believe that the use of IT positively benefits the performance of work related to their work. Recognized usefulness suggests that users believe that it is beneficial to use specific IT. In order for the user to hold such a belief, several conditions must be satisfied. First, if the user does not have prior experience with a particular problem, which suggests that the problem is at least

somewhat understanding of the nature of the problem, even though the problem is not fully understood to derive a solution I do not know.

In general, users must also have experience in information technology. This experience provides the basis for evaluating the ability of information technology to the user and what kind of usefulness in what circumstances. In the formation of the first opinion, the user has no practical experience, but can know the ability of information technology through other communication channels such as television and newspaper like media and friends (Jihyune, 2003).

#### **2.4.2 Perceived Ease of Use**

Recognized ease of use reflects "how much individuals believe that using specific IT does not require physical and mental effort".

Davis (1986) insisted that all other things were equal, perceived that IT was easier to use than others, and claimed that it was more likely to be accepted by individuals. Perceived ease of use has both direct effect and indirect effect on attitude to use. The perceived ease of use is determined at least in part by the previous experience in the use of IT as well as the amount of training the user has received. Experience and training up to now improve IT utilization. For example, if an individual feels confident from previous experiences on a particular IT, that individual will take a positive attitude towards IT. This is a direct effect that perceived ease of use will have on attitudes.

Davis (1986) also suggests a relationship between perceived ease of use and perceived utility. Increased perceived ease of use may contribute to improved performance. Constructs, perceived usefulness and perceived usability are extensively investigated by researchers. These studies

generally confirm that perceived utility and perceived ease of use are important factors affecting IT usage.

### **2.4.3. Attitude**

According to Schiffman and Kanuk (1997), attitudes are "learned predisposition to act consistently in a conveniently favorable or objectionable manner on a given subject". For example, in the case of an attitude towards a computer, the given object is a computer. In addition, attitudes can be learned through purchasing actions, direct experience of products, information acquired from others, exposure to mass media advertisements, etc. Furthermore, attitudes are relatively consistent with relevant consumer behavior (Jihyune, 2003).

In the context of TAM, Davis (1986) defined the attitude as "degree of individual's evaluation impact on usage behavior." Attitudes towards use are jointly determined by two beliefs (recognized usefulness and ease of use).

### **2.4.4. Behavioral Intention to Use**

According to Davis (1986), the behavioral intention reflects "the strength of intent of decision-making to use, or supporting decision-making in mind". The behavioral intention is jointly determined by attitude and perceived usefulness. The relationship between attitudes and action intentions means that everything else is equal, that individuals with a positive attitude intend to carry out their actions. In addition, the perceived usefulness directly affects the behavioral intention. For example, even though an individual may dislike a particular IT, if individuals have a high level of usefulness regardless of the individual's overall attitude towards IT, that individual may continue to use IT.

In summary, the use of the information system is determined directly by the behavioral intent using it, and is influenced by the user's attitude towards the use of the system and the recognized usefulness of the system. Attitudes and perceived utilities are influenced by perceived usability. According to TAM, the usefulness of the information system and perceived ease of use will positively influence the attitude towards this system. That attitude leads to a stronger intention to use a system that has a positive impact on the actual use of the system.

#### **2.4.5. Beliefs and Attitudes**

The TPB assumes that attitudes towards behavior refer to the extent to which people have positive or negative emotions on behaviors. Fishbein et al. (1975) suggested that the posture is determined by the belief that people have about the object of posture, beliefs are formed by the characteristics of the posture object. Ajzen (1991) also stated that the positive or negative attitude of an individual depends on results related to undesirable or undesirable expected results or purposes. For example, those who believe online financial services are a convenient technology for dealing with financial activities are taking a positive attitude toward online financial services.

#### **2.4.6. Subjective Norm**

Subjective norms are influenced by normative beliefs referring to social pressure (Ajzen, 1991) that knows whether to carry out actions or not. Normative beliefs may be related to the influence of opinions of social groups such as families and friends. In the TPB model, the subjective norm is in a positive relationship with the intention to adopt the Internet banking service, which is negatively related to the perceived risk. Attitudes are positively related to subjective norms.

#### **2.4.7. Perceived Behavioral Control**

According to Ajzen (1991), the perceived behavioral control reflects the belief concerning access to the resources needed to perform the action. There are two elements that affect perceived behavior control. The first element is "to facilitate conditions" that reflects the availability of the resources needed to perform the action. This includes access to the time, money, skills and other special resources needed to perform the action. The second factor is "self-efficacy". It is personal confidence in the ability to perform actions. Taylor and Todd (1995) suggest that resources (ie time and money) and individual 'self-efficacy' are important factors influencing behavioral intent and actual technical use.

According to Ajzen (1991), when believing that individuals have more resources, those who lack the necessary resources and confidence can hardly control their behavior so reducing their willingness to do actions , Reduce obstacles,

#### **2.4.8. Culture**

Culture has no accepted definition in general. Hofstede (1997) defines culture as a collective programming of mind distinguishing members of one human group from another human group. Shore and Venkatachalam et al. (1996) stated that culture reflects individual core values and beliefs. These values and beliefs are formed through childhood and strengthened throughout all our lives.

Hofstede (1997) put five cultural dimensions in his study. These dimensions are as follows:-

- Power Distance (PD): The extent to which members of weak power of institutions and organizations of a country accepts their power expectations will be dispersed inequality.

He pointed out that employees in countries with high power remote areas believe that electricity is distributed unequally. Therefore, even though they are not confident of their boss's ethics, they tend to accept and complete the duties assigned by their superiors.

- Uncertainty avoidance (UA): The degree to which members of culture feel threatened by uncertain or unknown circumstances. People with low uncertainty are hoping to take risks and make individual decisions.
- Individualism vs. collectivism (IDV). Individualism is a society in which relationships between individuals are loose. Everyone is expected to look only at themselves and their immediate families. Collectivism means a society that is strong and interrelated in groups where people after birth continue to protect themselves in exchange for unconscious loyalty during their lives. In a low culture of individualism, he instructed people to emphasize belonging to the group and to respect the opinions of other members.
- Masculinity versus femininity (MAS). Masculinity represents a society in which the role of social gender is clearly different. Femininity represents a society in which social roles overlap, but both men and women should be discreet, soft and related to the quality of life.

In this research, the dimension of culture collectivism is taken into account. Culture (social element) in this research means the way people of society are related to each other, and more importance is attached to belonging to the group.

#### **2.4.9. Perceived Risk**

Consumer behavior research defines perceptual risk (PR) about the potential adverse effects of customers recognizing uncertainty and purchasing products and services. The degree of risk recognized by customers and the tolerance of risk tack are factors that affect purchase decisions



(Nasri, 2011). The perceived risk also makes customers reject new technical services, and is related to reliability and system failure. Customers lack the confidence that problems can be resolved quickly as concerns are raised that technology-based service provision will not function as expected

#### **2.4.10 Conceptual Framework**

There have been few attempts to model the relationships between factors that affect the adoption of Internet banking. Existing literature has examined models to deal with factors that individually influence the introduction of Internet banking services but it is hardly knowledgeable about how these variables fit as part of a more comprehensive model It is not done. By creating a model of factors influencing Internet banking, you can investigate related variables in detail. The following model factors that influence the adoption of Internet banking (see Figure 2.3) are expected to be tested in the current survey.

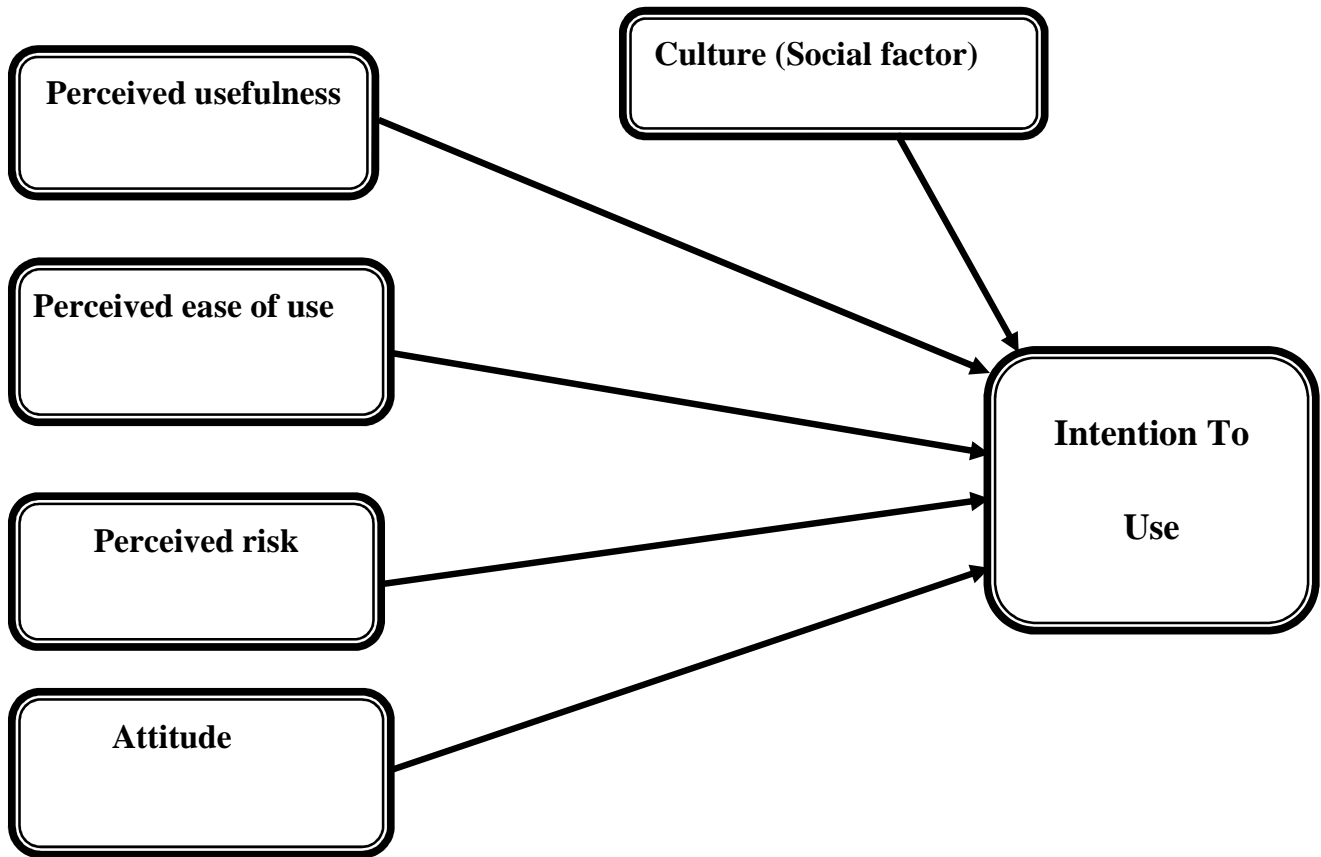


Figure 2.3 self extracted conceptual frameworks

## **CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY**

### **3.1. Introduction**

This chapter presents details of the research design and methodology. This includes the research design, sample size and sampling technique, data source and collection method and procedure of data collection. After the data collected, it is necessary to utilize statistical techniques to analyze the information as this study will be quantitative in nature. Therefore, the survey data are processed using SPSS (version 20). At the end the method of data analysis will be presented.

### **3.2. Research Design**

Explanatory study designs using quantitative method were used to analyze the data collected from customers. This study used explanatory study design to explain and understand the relationship between variables that is factors affecting internet banking and intention to use.

### **3.3. Research Type**

This study utilized cross-sectional survey; all relevant data were collected at a single point in time. The reason for using cross-sectional design is that it is a reasonable strategy to prefer cross – sectional survey to obtain pertinent information from cross- section of population at a single point of time. For the purpose of this study a quantitative approach of doing research was employed because, quantitative research answers questions through a controlled deductive process, allowing for the collection of numerical data, the prediction, the measurement of variables, and the use of statistical procedures to analyze and develop inferences from that data.

### 3.4. Sampling Design

The primary purpose of sampling is that by selecting some elements of a population, the researcher can draw conclusions about the entire population. The following section examines the target population, sampling elements, sampling method that was used for this study, and the motivation for selecting the sampling method. It also examines the sample size used for this study.

#### 3.4.1. Target population

To achieve the objective of the study (research) the target population will be customers of private and government owned commercial banks which are currently using internet banking. Therefore, the target population was taken from the 68,160 of customers who are using internet banking in all of the 7 commercial banks which are providing internet banking services.

Table 3.1.Number of Internet banking users by Banks as of December 31, 2016

NO	BANK	A/ABABA	DIREDAWA	TIGRAY	AFAR	AMHARA	OROMIYA	SOMALI	SNNP	HARARI	BENISHAN GUL	GAMBELA	2016/17 Q2 Total (A)	2016/17 Q1 Total (B)	Quarterly change (C)= (A) –(B)
1	CBE	13,813	1,578	1,361	120	4,555	9,878	695	1,961	317	266	93	34,637	31284	3,353
2	AIB	1507	5	33	2	41	349	35	43	4	6	2	2,027	141	1,886
3	DB	5985	27	191	16	1000	1215	512	471	53	13	14	9,497	8558	939
4	UB	11620	383	125	129	298	362	14	220	7	8	6	13,172	11856	1,316
5	NIB	460											460	481	(21)
6	ZB	7140	4	27		2	102		24				7,299	0	7,299
7	ABB	702	11	12	2	294	10		15		22		1,068	856	212
	TOTAL	41,255	2,008	1,749	269	6,190	11,916	1,256	2,734	381	315	115	68,160	53176	14,984

SOURCE: NBE Payment and Settlement Directorate Quarterly Report

### **3.4.2. Sampling Elements**

The respondents were customers from the seven (7) banks. The same questionnaire was distributed to different ranges of respondents which are based on age, gender, marital status, education level, working experience and job type. As a result, it could help to generate different perception among the respondent to obtain the accurate result in the research.

### **3.4.3. Sampling Technique**

The researcher used convenience sampling design technique. Convenience sampling used in this study due to the practical difficulties in obtaining the list and information of the target population and since it enable the researchers to collect data more effectively and quickly.

### **3.4.4. Sample size**

A sample of 300 was selected because Lu (2010) recommended that “minimum sample sizes for quantitative customer surveys are of the order of 300 to 500 respondents”. Therefore, the data was collected from a convenience sample of 300 individuals who are customers of the bank.

## **3.5. Data Source and Collection Method**

### **3.5.1. Data Source**

According to Kothari (1990) the task of data collection begins after a research problem has been defined and research design/ plan chalked out. While deciding about the method of data collection to be used for the study, the researcher should keep in mind two types of data viz., primary and secondary. Thus, data collected from both primary and secondary sources.

### **3.5.1.1. Secondary Sources**

The secondary data are those which have already been collected by someone other than the investigator himself, and as such the problems associated with the original collection of data do not arise here. This study was conducted by gathering secondary data from various sources such as researches, international journal articles; E-sources research papers conducted locally, important books, related to the topic, and etc.

### **3.5.1.2. Primary Sources**

Primary data was collected using questionnaires. Naresh (2004) describes a questionnaire as a booklet of structured, standardized procedure, pre-coded and containing open ended questions at times that are used to collect information from the respondents who record their own answers. In order to realize the target, the researcher was engaged in well-designed questionnaire as the best instrument for the collection of primary data.

This questionnaire was completed by the customers of selected banks in Addis Ababa. For the purpose of this study, a quantitative methodology involving a close ended questionnaire was used as the measuring instrument because it is helpful for the researcher to reach respondent in less cost and less time. It provides an opportunity to respondents to express their feelings freely. The layout of the questionnaire was very simple to encourage participation of the respondents meaningfully.

The main reason for appearance and layout of questionnaire is to encourage respondent to complete the questionnaire so, in this study the questions will be kept as concise as possible with the actual wording and phrasing of the questions. The questionnaires included dichotomous, multiple-choice response and scaled-response. Moreover, the variables were attitudinal and

measured using Likert scale with five response categories (strongly disagrees, disagree, neutral, agree, and strongly agree).

### **3.5.2. Methods of Data Collection**

The research was conducted by analyzing the collected data. In order to assess the purpose of this study, a quantitative methodology involving a close ended questionnaire was used as the measuring instrument because it helps for the researcher to reach respondent in less cost and time and it also provide an opportunity to respondents to express their feelings freely. The questionnaires were also including dichotomous, multiple-choice response and scaled-response. The layout of the questionnaire was made very easy to encourage the meaningful participation of the respondents and avoid confusion on the part of the respondents. Moreover, the questionnaire was designed so as to obtain information on aspect of perceived usefulness, perceived eases of use, attitude, culture (social factor), and perceived risk. These information was measured using Liker scale with five response categories (strongly disagrees, disagree, neutral, agree, and strongly agree). The data was gathered from 300 customers in Addis Ababa. Customers was approached to participate in the research while they were waiting their turn to the counter and the researcher was stress clearly “the voluntary participation” criteria before distributing the questionnaire to each participant to fill in.

### **3.6. Data Processing and Analysis**

#### **3.6.1. Data processing**

In this activity the first task is editing, coding, classification and tabulation of collected data. This data processing procedure has two consecutive phases:

First data cleanup in which the collected raw data was edited to detect errors and omissions in response and for checking that the questions are answered accurately and uniformly and Editing involves a thorough and critical examination of the completed questionnaire, in terms of compliance with the criteria for collecting meaningful data, and in order to deal with questionnaires not duly completed.

The next phase is the process of assigning numerical or other symbols was followed. Coding involves assigning numbers or other symbols to answers so that responses can be grouped into limited number of classes and categories. This helps to reduce the response into a limited number of categories or classes and then the process of classification or arranging large volume of raw data in to groups with common characteristics was applied. Data having the common characteristics was placed together and the data was summarized in tabulation and displayed for further analysis.

#### **3.6.2. Data Analysis**

Statistical Package for Social Science (SPSS) software for version 20 was employed to analyze and present the data through the statistical tools used for this study, namely descriptive analysis, correlation and multiple regression analysis.



### 3.6.2.1. Inferential Analysis

According to Sekaran (2000:401), “inferential statistics allow researchers to infer from the data through analysis the relationship between two variables; differences in a variable among different subgroups; and how several independent variables might explain the variance in a dependent variable.” The following inferential statistical methods are used on this research.

#### The Pearson Product Moment Correlation Analysis

Cohen and Swerdlik (2002) posit that the Pearson Product Moment Correlation Coefficient is a widely used statistical method for obtaining an index of the relationships between two variables when the relationships between the variables is linear and when the two variables correlated are continuous. To ascertain whether a statistically significant relationship exists between factors affecting internet banking (Perceived usefulness, Perceived ease of use, Perceived risk, attitude and culture (social factor) and intention to use the Product Moment Correlation Coefficient was used.

According to (McDanail and Gates, 2006), correlation coefficient can range from -1.00 to +1.00. The value of -1.00 represents a perfect negative correlation. While a value of +1.00 represents a perfect positive correlation. A value of 0.00 correlations represents no relationship. The results of correlation coefficient may be interpreted as follow:

<b>Correlation coefficient</b>	<b>Interpretation</b>
(-1.00 to -0.8]	High
(-0.8 to -0.6]	Substantial
(-0.6 to -0.4]	Medium

(-0.4 to -0.2]	Low
(-0.2 to 0.2)	Very low
[0.2 to 0.4)	Low
[0.4 to 0.6)	Medium
[0.6 to 0.8)	Substantial
[0.8 to 1.00)	High

Accordingly, on this study, Pearson's Correlation Coefficient statistical method was used to determine the following relationships for the sample respondents.

- The relationship between Perceived usefulness and intention to use
- The relationship between Perceived ease of use and intention to use
- The relationship between Perceived risk and intention to use
- The relationship between attitude and intention to use
- The relationship between culture and intention to use

### **Multiple Regression Analysis**

Multiple regression analysis takes into account the inter-correlations among all variables involved. This method also takes into account the correlations among the predictor scores. Multiple regression analysis more than one predictor is jointly regressed against the criterion variable (Cohen & Swerdlik, 2002). This method is used to investigate the factors affecting the adoption of internet banking.

### **Regression functions**

The equation of multiple regressions on this study is generally built around two sets of variable, namely dependent variables (Intention to use) and independent variables (Perceived Ease of Use, Attitude, Perceived Risk, Perceived Usefulness and Social factor). The basic objective of using

regression equation on this study is to make the researcher more effective at describing, understanding, predicting, and controlling the stated variables.

<b>Independent Variables</b>	<b>Dependent Variables</b>
Perceived Ease of Use	Intention to use
Attitude	
Perceived Risk	
Perceived Usefulness	
Social factor	

**Regress Intention to use on the factors affecting the adoption of internet banking**

Intention to use = f (Perceived Ease of Use, Perceived Usefulness, Attitude, Perceived Risk and Social factor)

$$IU = \alpha + \beta_1 PEU + \beta_2 PU + \beta_3 ATT + \beta_4 PR + \beta_5 SF + e$$

Where

IU = Intention to use

PEU= Perceived Ease of Use

PU= Perceived Usefulness

ATT = Attitude

PR = Perceived Risk

SF=Social factor

e = model error term

Mathematically,

$$Y_i = \beta_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6$$

Where Y is the dependent variable- Intention to use

X2, X3, X4, X5 and X6 are the explanatory variables (or the regressors)

- $\beta_1$  is the intercept term- it gives the mean or average effect on Y of all the variables excluded from the equation, although its mechanical interpretation is the average value of Y when the stated independent variables are set equal to zero.

- $\beta_2$ ,  $\beta_3$ ,  $\beta_4$  and  $\beta_5$  refer to the coefficient of their respective independent variable which measures the change in the mean value of Y, per unit change in their respective independent variables.

### **3.7. Ethical Consideration**

The participants were approached when they are waiting their turn. They were voluntary in order to have honest answer. They were briefed about the nature of study being carried out .Participants were assured that their responses would remain confidential.

## **CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

### **4.1. Introduction**

This chapter will present a discussion of the final results and the process through which the results were obtained. In addition to this, background information of respondents will be presented. Finally, the statistical methods of analysis were discussed, which included a descriptive analysis, a correlation analysis, and a multiple regression analysis through SPSS version 20. Concurrently, the result obtained from analysis is also compared with empirical studies to confirm if they are consistent.

### **4.2. Data Analysis and Interpretation**

To facilitate ease in conducting the empirical analysis, the results of the descriptive analysis are presented first, followed by the inferential analysis. The first phase involved editing, coding and the tabulation of data. This assisted in identifying any anomalies in the responses and the assignment of numerical values to the responses in order to continue with the analysis. The data was then checked for possible erroneous entries and corrections made appropriately. The statistical program used for the analyses and presentation of data in this study is the Statistical Package for the Social Sciences (SPSS) version 20.

The descriptive statistics utilized are based on frequency tables to provide information on the demographic variables, internet usage and internet banking. Through tables, summary statistics such as means, standard deviations, minimum and maximum are computed for each of the factors affecting internet banking service in this study. This is followed by presentation of inferential statistics based on each hypothesis formulated for the study. All statistical test results were

computed at the 2-tailed level of significance. The alpha levels of .05 and .01 selected a priori for test of significance for correlations and multiple regression analysis.

Three hundred twenty questionnaires were distributed to the respondents and out of the whole 320 questionnaires, 300 of them were collected that accounts 93.75% response rate. Accordingly, the analysis of this study is based on the number of questionnaires collected.

#### 4.2.1. Descriptive Statistics

##### 4.2.1.1. Background Information of Respondents

**Table 4.1: Background Information of Respondents**

No.	Item	Frequency	Percent	Valid percent	Cumulative percent	
1.	Gender of Respondents	Male	195	65.0	65.0	65.0
		Female	105	35.0	35.0	100.0
		Total	300	100.0	100.0	
2.	Age of Respondents	Under 25 years	30	10.0	10.0	10.0
		26-35 years	198	66.0	66.0	76.0
		36-45 years	72	24.0	24.0	100.0
		46 and above	-	-	-	
		Total	300	100.0	100.0	
3.	Marital status	single	139	46.3	46.3	46.3
		Married	161	53.7	53.7	100.0
		Divorced	-	-	-	
		Widowed	-	-	-	
		Total	300	100.0	100.0	
4.	Educational level	less than 12 grade	18	6.0	6.0	6.0
		certificate	28	9.3	9.3	15.3
		Diploma	40	13.3	13.3	28.7
		Degree	172	57.3	57.3	86.0
		Master & Above	42	14.0	14.0	100.0
		Total	300	100.0	100.0	

Source: Own survey, 2017

Table 4.1 above indicates background information of respondents participated in the study. Gender, age, marital status and educational level of the sample respondents are displayed in the table.

As shown from the table item number 1 gender distribution of the sample, 195 (65.0%) of the total respondents are male, 105 (35%) are female.

As far as age of respondents is concerned, 30 (10.0%) of the respondents are in the range of under 25 years, 198 (66.0%) of the respondents are in the range of 26-35 years, 72 (24.0%) are in the range of 36-45 years as revealed from item number 2 of the table. From this, it can be understood that the public and private banks under study consist of all age groups with majority of 26-35 years.

The above table indicates that the percentage of the total participants, who married are 53.7% and those unmarried (single) are 46.3%.

Item number 4 of the table further indicates educational level of respondents. From the table, 18(6%) of the respondents are less than 12 grade, 28(9.3%) of the respondents are certificate holders, 40(13.3%) of the respondents are diploma holders, 172(57.3%) of the participants of the study are degree holders and 42 (14%) of the respondents are Masters and above holders.

From this one, we can understand that most of the respondents are Degree holders. Therefore, they would have the ability to fill the questionnaire by having know-how about factors affecting the adoption of internet banking services provided by commercial banks (i.e. Government and private owned).

#### 4.2.1.2. Information of Respondents about their Internet usage

Table 4.2 information regarding internet usage

No.	Item	Frequency	Percent	Valid percent	Cumulative percent
1.	Have you ever used the Internet	Yes	300	100.0	100.0
		No	-	-	-
		Total	300	100.0	100
2.	If yes, do you use Internet at	home	18	6.0	6.0
		workplace	131	43.7	43.7
		internet cafe	97	32.3	32.3
		library	54	18.0	18.0
		Total	300	100.0	100.0
3.	You use the Internet for	email	66	22.0	22.0
		Entertainment	70	23.3	23.3
		Study	57	19.0	19.0
		Update on current news	107	35.7	35.7
		Total	300	100.0	100.0
4.	How often do you use internet	Daily	191	63.7	63.7
		Sometimes	89	29.7	29.7
		rarely	20	6.7	6.7
		Total	300	100.0	100.0

Source: Own survey, 2017

Table 4.2 above indicates internet usage information of respondents participated in the study. Use of internet, place of using internet, the purpose use of internet and usage frequency of the sample respondents are displayed in the table.

As it is displayed in the first section of the above table all of the respondents use internet. In line with this, the majority of the respondents i.e. 131(43.7%) reveal that they use internet at work. Further, 107(35.7%) of the participants of the study disclose that they use internet to follow updates on current news (issues). Finally, 191(63.7%) of the respondents reveals that they use internet on daily basis.