Addis Ababa University

College Of Business and Economics

Department Of Management

MBA PROGRAM

Factors Affecting the Adoption of Internet Banking Services by Customers in Addis Ababa

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Addis Ababa University

School Of Graduate Studies

MBA Program

This is to certify that the thesis prepared by Bisrat Alebachew, entitled: Factors Affecting the Adoption of Internet Banking in Addis Ababa and submitted in partial fulfillment of the requirements for the Degree of Masters of Business Administration in Management complies with the regulations of the university and meets the accepted standard with respect to originality and quality.

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Advisor _________________________Signature_____________Date____________

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Abstract

The purpose of this study was to investigate which factors affect the adoption of Internet banking in Addis Ababa. A conceptual frame work was developed based on factors in TAM, culture and perceived risk. Data was collected using questionnaire and distributed to a sample of 300 customers of three selected banks namely Dashen bank, Commercial bank of Ethiopia, and United bank. The collected data was analyzed using SPSS version 20.0 for descriptive analysis and the inferential analysis was analyzed using structural equation modeling. The findings of the study showed that perceived usefulness, perceived ease of use, attitude, perceived risk, and culture have a significant effect on intention to adopt Internet banking. In addition attitude is negatively and significantly related to perceived risk and positively and significantly related to perceived ease of use and perceived usefulness. Finally it is recommended to banks to improve their security policies, to make Internet banking more useful and useable, to concentrate on making their website user friendly, and government should also improve ICT infrastructure.

Key words- *Internet banking, TAM, Culture, Perceived Risk, Addis Ababa.*

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Acronyms

TAM- Technology acceptance model

TPB- Theory of planned behavior

Peu5- Perceived ease of use

Pu5- perceived usefulness

Att5- Attitude

Cu1- Culture

Pr1- Perceived risk

Int5- Intention to adopt Internet banking services.

Chapter One :Introduction

1.1. Background of the Study

The history of payment goes to the experience of exchange of goods by human beings. Since then human beings exchange value for goods they bought and for the services they gained. The payment mechanism involved to facilitate the exchange have gone through different improvements of which Internet banking (online banking) service is the significant. Technological developments, particularly in the area of telecommunications and information technology, revolutionize the banking industry.

The definition of Internet banking varies amongst researchers partially 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, et al (2004) defines Internet banking as an "internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments". Many studies have made the attempt to define Internet banking in the different literature but in this study the researcher refers to Internet banking as conventional banking services that banks use the internet technologies to render services to their customers without the presence of physical interactions between the customer and bank employees.

Banking has always been highly information sensitive activity that relies heavily on information technology (IT) to acquire process, and deliver the information to all relevant users. Not only IT is critical in the processing information, it 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

(Munyok & Eva, 2011). The emerging trend of Internet banking raises important issues in the area of consumers' banking behaviors and choices. For example, technology around the world is changing the ways how home buyers and consumers borrow money. In the past, people who wanted to obtain mortgage loans or personal loans have to go to the bank in person. Today, they can get many services from their home.

Internet banking has become profitable distribution channel of the banks because it can help banks save cost and make their relation with customers easier. Nowadays many banks especially in the developed countries are benefiting from it. But in Ethiopia despite the growth of e-banking worldwide, commercial banks in Ethiopia continue to 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. 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. So the main purpose of this study is to examine the factors affecting customers' intention to adopt this service.

1.2. Statement of the Problem

According to National Bank of Ethiopia website there are 19 registered commercial banks of which some of them are providing Internet banking services. Internet banking service is beneficiary for both the customers as well as the banks. It provides a lot of services like viewing account balance and transaction, making fund transfers between a customer's own current accounts and saving accounts, effecting payment to third parties, viewing and downloading current and saving account statements, requesting for stop payments on cheque, applying for a letter of credit, and more.

Although there are many research works conducted worldwide, there are very few or limited published works that tried to investigate the factors affecting the adoption of Internet banking by customers in Ethiopia. So more should be studied to have broad understanding of the factors affecting the adoption of Internet banking in Ethiopia context. In addition many of the researches conducted did not consider culture as a factor and in countries like Ethiopia, people are greatly influenced by culture. So the researcher assessed the influence of culture on the intention of customers to adopt online banking services.

1.3. Research Questions

This study tried to answer 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 and acceptance of the services?
- Which factors have strong relationship with the adoption of Internet banking services?
- What are the solutions for banks to improve the acceptance of Internet banking services?

1.4. Research Hypothesis

Perceived Usefulness

Perceived Usefulness is expected to have a positive effect on intention to use and attitude towards usage of the system. This was supported by the research of Zeleke and Yitbarek (2013), Maduko(2013), and Rakesh et al. (2014).

H1: Perceived usefulness has a positive effect on consumers' intention towards the use of Internet banking services.

H2: Perceived usefulness has a positive effect on consumers' attitude towards the use of Internet banking services.

Perceived Ease of use

Mohammed (2012) in his research supported that perceived ease of use has a positive effect on perceived usefulness and attitude. Kent et al. (2011) indicated in his research that many studies like Winklofer et al. (2004) and Golwitzer et al. (1998) confirmed this hypothesis.

H3: Perceived ease of use has a positive effect on consumers' attitude towards the use of Internet banking services.

H4: Perceived ease of use has a positive effect on consumers' perceived usefulness towards the use of Internet banking services.

Attitude

As Maduko (2013) indicated on his research many studies (Al-Somali, Gholami & Clegg. 2009; Lee, 2009: Karjaluoto et al., 2002; Pikkarainen et al., 2004, Al-Sukkar, 2005) have all emphasized the central role of attitude in determining behavioral intention towards electronic banking services. Hence the following hypotheses is proposed

H5: Attitude has a positive effect on consumers' intention towards the use of Internet banking services.

Culture

Even though there are few researches that included culture as a variable, the work of Mohammed confirmed that culture has positive effect on perceived ease of use and perceived usefulness.

H6: Culture has a positive effect on consumers' perceived usefulness towards the use of Internet banking services.

H7: Culture has a positive effect on consumers' perceived ease of use towards the use of Internet banking services.

Perceived Risk

It is believed that the lower the perception of risks involved in using Internet banking the more likely an individual would be prepared to use it. Many researches(Jihyune. 2003: Nasri. 2011: Mohammed. 2012) support this hypothesis in their researches.

H8: Perceived risk has a negative effect on consumers' attitudes towards the use of electronic banking services.

1.5. Objectives of the Study

The research aimed investigating the factors affecting the adoption of Internet banking services in Addis Ababa. Specifically the main objectives of this study were;

- 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.
- propose solutions for banks which will improve the acceptance of Internet banking services.

1.6. 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 in Addis Ababa. This study determined the most important factors that are associated with the adoption of Internet banking services. This will benefit banks to reformulate a better strategy to attract their customers to adopt and retain Internet banking services. Besides, it will benefit the banks as they are able to identify the factors, strength, weakness, threat and opportunity to improve their services. Banks may know the customers satisfaction and perception toward Internet banking services. Understanding factors influencing to adopt Internet banking services will help banks to improve their service performance, it also strengthen the relationship between banks and customers in order provide better services, and contribute in future developments.

This study also enable banks to strategically plan their products and service offerings. This study have significant contribution to the further researches that will be conducted in Ethiopia related to this topic and to the banking industry.

1.7. Scope of the Study

The research was done in Addis Ababa where customers of three selected banks were the main respondents in this research. The findings of the research is only generalized to customers in Addis Ababa who are not using Internet banking services.

1.8. Organization of the Study

The 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, chapter four presents the analysis and interpretation of the study. The last chapter provides summary of findings, conclusion, research contributions and recommendation.

Chapter Two: Literature Review

2.1. Introduction

Electronic banking technologies have led banks and financial institutions to improve effectiveness of distribution channels through reducing the transaction cost and increasing the speed of service. Electronic banking is the application of information technology which helps to facilitate the information and services over public standards based networks. There are different forms of electronic banking like; Internet banking, mobile banking, and telephone banking. Sometimes there are misunderstanding between electronic banking and Internet banking. But it has to be clear that, E-banking is the wider part and Internet banking is the specific area under the E-banking services.

The following table summarizes the various features and functions offered by Electronic banking.

Table 2.1. Features and Function of Electronic banking

Features	Telephone banking	ATM	Internet banking
Withdrawal		X	
Deposit			
Balance enquiry	X	X	X
Interim Statement	X		X
Transfer fund	X	X	X
Cheque book order	X		X
Change ATM card pin			X
Stop payments	X		X
Rates	X		X

Source: Sara, 2008

2.2. Internet Banking

Internet banking is defined as a banking service that allows customers to access and perform financial transactions on their bank account from their computers with an Internet connection to the bank website. The evolution of Internet banking from e-commerce has altered the nature of personal-customer relationships and the offering of products and services in the banking industry. Pikkarainen et al. (2004) 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 gives customers access to almost any type of banking transaction at the click of a mouse, except withdrawals.

When first introduced, Internet banking was used mainly as information presentation medium in which banks marketed their products and services on their website. With the development of technology and secured electronic transaction technologies, however more banks have come forward to use Internet banking as transactional and informational medium. Syed et al. (2011) stated that the emergence of Internet banking was initiated first in the 80th century but its growth across the globe took place in the 90th century and Europe has become a leader in the usage of Internet banking. Internet banking is beneficial for both the provider and the customer. It can currently be considered as the cheapest distribution channel for standardized bank operations, such as account services or transfer of funds (Polasik & Wisniewski, 2009). Such services also save time and money of the banks with an added benefit of minimizing the likelihood of committing errors by bank tellers . Internet banking offer services regardless of geography and time and banks thus provide services to the customers for at their convenience (Padachi et al., 2007). According to Lu (2010), banking is a borderless service no longer bound to time and geography. Customers have relatively easy access to their accounts, 24 hours per day, and seven days a week globally. Sara (2008) argue that traditional banks will benefit from this technology and they will be able to care for their customers in a more efficient, more productive and even more fun way.

2.2.1 Benefit of Internet Banking for Banks

Internet banking has advantages for banks to maintain competition, to save costs, to enhance mass customization, to enhance marketing and communication activities, and to maintain and attract consumers (Daniel, 1999). Furthermore, Maduku (2013) noted that the consistent presence of a bank on the internet, apart from being a low-cost form of advertisement worldwide, allows even small banks to expand their businesses geographically without being obliged to invest large amounts of money in establishing new branches. Several benefits of strong Internet banking services have also been identified as including satisfied and retained customers, attraction of new customers, development of customer relationships, increased sales and market shares, enhanced corporate image, efficiency, better customer service and satisfaction, and increased profit margins and business performance.

Internet banking services are crucial for long term survival of banks in the world of electronic commerce. Sadullah (2007) in her research indicated that Burnam found that the majority of banks with websites spent less than US$ 25,000 to create a web presence , and less than US$ 25,000 a year maintaining it. Burnam suggested that even these figures were to rise as banks began to offer Internet banking services, they would still be less costly than the traditional way of banking. According to Sara (2008) the most important driving force behind the implementation of full service Internet banking by banks is the need to create powerful barriers to customer exiting. This means once a customer moves to full service Internet banking. the likelihood of that customer moving to another financial institution is diminished.

2.2.2 Benefit of Internet Banking for Customers

Internet banking helps consumers in conducting fast and convenient financial transaction activities. This type of banking allows consumers to check the balances in their accounts, transfer funds and order electronic bill payments. Internet banking systems allows customers to apply for loans, trade stocks or mutual funds, and even view actual images of their checks or deposit slips. With the help of the internet, banking is no longer bound to time or geography. Consumers all over the world have relatively easy access to their accounts 24 hours per day, seven days a week. Internet banking has the advantage that the customer avoids traveling to a bank branch. In this way, Internet banking saves time and money and also provides convenience and accessibility.

It has been claimed that Internet banking offers the customer more benefits at lower costs (Maduku, 2013). He indicated that Internet banking is extremely beneficial to customers because of the savings in costs, time and space it offers, its quick response to complaints, and its delivery of improved services, all of which benefits make for easier banking.

2.2.3. Disadvantages of Internet Banking for customers

The disadvantages of Internet banking are listed as stated by Ozelman (2012). These are also based on consumer perspectives.

- Start-up may take time: Bank for online program registration, and to ensure the identity of a bank branch is probably going to have to sign a form.
- Bank site changes: Even the big banks adding new features in unfamiliar places, periodically upgrade their online programs. In some cases, you may need to re-enter your account information.
- Security: To ensure ease of access to Internet technology, many customers believe that is open and therefore not safe.
- Learning curve: Banking sites can be difficult to navigate at first glance. A little time and / or investment plan is needed to read tutorials for virtual lobby to be relaxed.
- The trust thing: For many people, the biggest hurdle to online banking is learning to trust.
- Dissatisfaction with the low speed of Internet banking response
- Complex web sites: You can find a very complex and time consuming customer banking websites.

2.2.4. Roles of Banks in Internet Banking

Developing Internet banking for customers use requires that banks need to make a serious improvement that addresses consumers' fears and interest. It is also mandatory for banks to understand factors that lead customers to adopt internet banking since both parties are benefited at last. Ozelman (2012) stated that banks have two major roles which they play:

- provide access to conventional banking products over the internet. Conventional banking products means services provided by banks such as depositing money, transferring cash, viewing account balance etc. So banks should give customers of Internet banking many services as possible as it is through Internet banking so that customers think that it is beneficial.
- aid in the development of new product that would make Internet banking possible. This means banks should assist companies that are engaged in inventing new technologies to manufacture new products that can help customers use Internet banking in convenient and easy way. This means the more there are new products that can enable customers to Internet banking, the more they will be initiated to adopt Internet banking services.

2.2.5 Role of Customers in Internet Banking

The main role of customers is to benefit from Internet banking as possible as it is. Customers should also be eager to move over to online financial services if the conveniences and effectiveness involved with online services is greater than the personalized branch network service. These mean if they frequently use Internet banking and benefit from it, banks will be initiated to improve or maintain the services. They have also the responsibility of commenting on the service after all both parties will be benefited at last.

2.3. Review of Related Researches

Internet banking adoption has gained special attention in academic studies during the past years so as to investigate factors of adoption. Two important theories used by researchers in the study of individual's adoption of Internet banking are Technology Acceptance Model (TAM), and Theory of Planned Behavior (TBP). These theories will be discussed later on this chapter.

Nasri (2011) investigate the determinants of accepting Internet banking (IB) for the customers' of Tunisia. The purpose of this paper was to determine those factors that influence the adoption of Internet banking services in Tunisia. A total of 253 respondents in Tunisia were sampled for responding: 95 were internet bank users, 158 were internet bank non users. Factor analysis and regression technique were employed to study the relationship. The results showed that use of Internet banking in Tunisia is influenced most strongly by perceived convenience, perceived risk, security and prior internet knowledge. Only information on online banking did not affect intention to use Internet banking services in Tunisia. The results also proposed that demographic factors impact significantly Internet banking behavior. Finally, this paper recommend for the banks to implement new security policies, provide encryption and strong authentication, and provide free demonstration computer courses about using Internet banking to bank customers.

Braja (2005) conducted a research to identify relevant factors that influence New Zealand's bank customers' intention to use Internet banking. This study used the factors in TAM and in addition risk. The result showed that perceived ease of use and perceived usefulness have a significant association with the intention to use. But risk is not significant. This is contrary to other research results. This study also indicate that TAM has low capability in explaining the factors in users' intention to use online banking services.

Perkins and Annan (2013) examined the factors that influence the adoption of online banking in Ghana. The study was based on TAM which has been used expansively in similar studies. Primary data were collected from randomly selected customers and was analyzed by using multiple regression analysis in SPSS. The results showed that the original constructs of TAM i.e. perceived Usefulness (PU), perceived Ease of Use (PEOU) as well as the extensions of government support, trust and security were all significant to customers' intensions to adopt online banking.

Syed and Nida (2011) conducted a research in Pakistan to find out factors affecting internet banking adoption among internal and external customers. This study investigated the determinants by employing internal and external customers, on the sample size of 210 for internal and 151 for external respondents through using the survey research instrument questionnaire. Internal customers were employee of the banks being analyzed. Six hypothesis were formulated based on the six factors namely Convenience, Perceived Usefulness, Information on Online banking, Government Support, Perceived Risk, and Security and Privacy. Then multiple regression technique was applied on internal and external data to examine the relationships that exist between the factors for adopting Internet banking services. The result of the analysis showed that perceived usefulness , information of Internet Banking , perceived Risk, security and privacy showed more influence to increase the intention of external customers to adopt Internet banking services while Government Support provide more influence for the internal customers in adoption of internet banking services. For the factor convenience, the research concluded that, If external customers never found convenience, they never adopt any service. The researchers finally recommended that, bank should take some consideration to apply Internet banking by delivering the information in an easiest way, provide more usefulness and benefits and also minimize the fraud as providing more security and privacy. This will helps the bank to increase their profit by reducing its cost, time saving and retain more potential users. The research finding that information on internet banking influence the adoption of Internet banking services contradict with the result of Nasri (2011) which was discussed earlier.

Rakesh and Ramya (2014) studied factors influencing consumer adoption of internet banking in India. A new construct "perceived reliability" was proposed to enhance the understanding of an individual's acceptance behavior of Internet banking with respect to consumers' perceived security, privacy issues and the perceived risk of consumers. In addition to perceived reliability, level of awareness, perceived ease of use and perceived usefulness were other factors. It was hypothesized that all the factors have positive effect on consumer adoption of Internet banking and each other. Data for the study was collected from 100 participants by means of a survey conducted in Mysore, India. It was found that awareness level of consumers has a positive effect on the perceived ease of use, perceived usefulness, and perceived reliability on Internet banking. Perceived ease of use has a effect on consumer adoption of Internet banking. Perceived usefulness has a positive impact on perceived ease of use, perceived reliability, and consumer adoption of Internet banking. Perceived reliability has a positive impact on consumer adoption of Internet banking.

Kent E et al. (2011) studied customer acceptance of internet banking in Estonia. Three constructs were used to examine what is influencing the customers' usage of the Internet banking. They are trust, perceived usefulness, perceived ease of use. They took perceived usefulness and ease of use from technology acceptance model and add trust as another factor. A quantitative study was selected to obtain data regarding the usage of, and attitudes towards, the Internet as a banking channel. To examine what influences customers use of the Internet bank a questionnaire was sent to 9000 bank customers in Estonia. The findings suggested that Internet banking use increases if customers perceive it as useful. The perceived usefulness is central because it determines whether the perceived ease of Internet banking use will lead to increased use of the Internet banking. This means a well-designed and easy to use internet bank may not be used if it is not perceived as useful. They finally concluded that the perceived usefulness of Internet banking is, for banks, a key construct for promoting customer use. They also suggested that models of technology acceptance should be re-formulated to focus more on the key role of the perceived usefulness of the service embedded in the technology. They advised banks to put much effort not only into making a user-friendly internet bank, but also into explaining to their customers how the internet bank is useful to them.

Safeena et al. (2011) investigate the customer perspective about Internet banking adoption in an emerging Indian economy by using the convenience sample method for collecting data of the student of educational institutes through questionnaire. The variables of the research were perceived usefulness, perceived risk, consumer acceptance and perceived ease of use. For this research the factor analysis technique was used. The result showed that the perceived usefulness, perceived ease of use a perceived risk are the most important factors for the adoption online banking and also help to make a strategy formulation process.

Many more studies around the world show that the variables in TAM have significant relationship with the customers' intention to use online banking service. The same is true for Ethiopia. Zeleke and Yitabarek (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 Panned 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. This research also indicated that, contrary to TAM model, perceived usefulness is not predicted by perceived ease of use. This will be investigated in this research .

The work of Mohammed (2012) contradicts with the research result of Yitbarek and Zeleke (2013) on some relationship of TAM variables. This research was conducted to identify and understand factors that affect bank customers' use of electronic banking services. This study integrates technology acceptance model (TAM) with the theory of planned behavior model (TPB) and incorporates five cultural dimensions and perceived risk to propose a theoretical model. The primary data were collected from 387 valid questionnaires which were distributed to random banking customers in all 26 licensed banks in Jordan. Multiple regression analysis was employed to test the hypotheses. When Zeleke's and Yitbarek's result showed that perceived usefulness has a positive effect on attitude and intention to use, this research reject this hypothesis. On the other hand when this research confirm that perceived ease of use has a positive effect in perceived usefulness, Zeleke's and Yitbarek's research reject it.

From the reviewed literatures, the researcher came up with two research gaps. The first one is that most of the researches are conducted in foreign countries. So more should be studied to see the factors affecting the adoption of Internet banking services in Ethiopian context. The second gap is that most of the researches did not include culture as a factor. So this research included culture as one external factor.

2.4. Theoretical Frame Work

2.4.1. Theory of Reasoned Action

The theory of reasoned action is a widely studied model from social psychology which is composed of attitudinal, social influence, and intention variables to predict variables(Fishbein & Ajzen, 1975). As it can be seen below in figure 2, it is hypothesized that behavioral intention is jointly determined by attitude toward performing behavior and subjective norm. Attitude is defined as individual negative or positive feeling about performing a specific behavior and can be determined by one's belief that performing the behavior will lead to various consequences multiplied by the subjective evaluation of those consequences(Davis, 1986). Subjective norm refers to the person perception that most people who are important to him think he should or should not perform the behavior in question(Fishbein & Ajzen, 1975). The theory of reasoned action also hypothesize that behavioral intention is the only direct influencer of actual behavior.

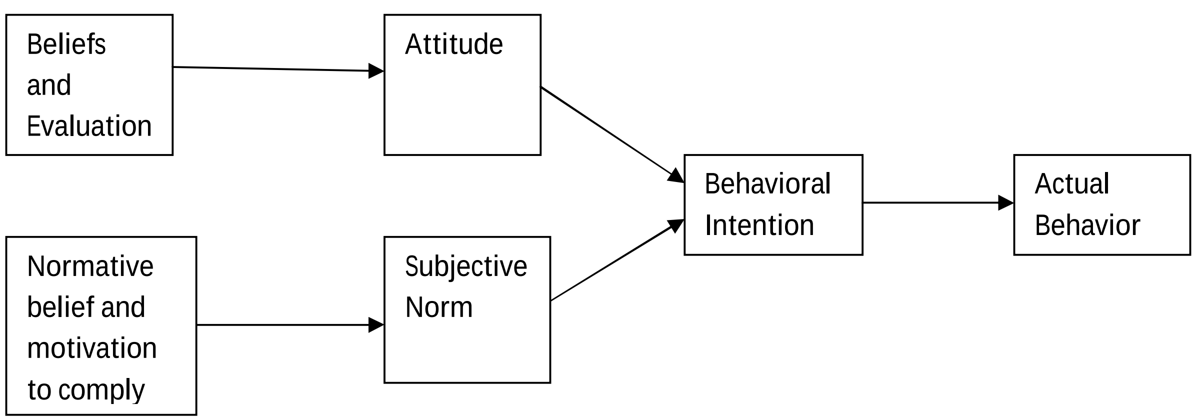

Figure 1 Theory of Reasoned Action. Source: Fisheben & Ajzen, 1975

2.4.2. Technology Acceptance Model

The Technology Acceptance Model (TAM), introduced by Davis (1986), is an adaptation of the Theory of Reasoned Action (TRA) specifically modified for modeling user acceptance of information technology (IT)(Davis1986). Davis(1986) stated that the main goal of TAM is to explain the determinants of IT acceptance across a broad range of information technologies and user populations. Moreover, Davis(1986) suggested that acceptance of IT can be determined by two primary constructs: perceived usefulness and perceived ease of use of the technology. When predicting the acceptance of information technologies, TAM suggests the following factors are important: external variables; beliefs about information technology (perceived usefulness and perceived ease of use), attitudes, behavioral intention, and finally, actual IT use. Davis(1986) suggested that using an information system is directly determined by the behavioral intention to use it, which is in turn influenced by the users' attitudes toward using the system and the perceived usefulness of the system. Attitude and perceived usefulness are also affected by the perceived ease of use. According to TAM, greater perceived usefulness and the perceived ease of use of an information system will positively influence the attitude toward this system. The attitude, in turn leads to a greater intention to use the system, which positively affects one's actual use of the system.

According to Davis et al. (1986), even though external variables do not have a direct influence on attitudes and behavioral intention to use, TAM underlies the bridging role of beliefs and attitudes between external variables and behavioral intention.

2.4.2.1. Perceived Usefulness

According to Davis (1986), perceived usefulness can be defined as “the degree to which an individual believes subjectively that using a particular IT would enhance his or her job performance”. In other words, the individual believes that the use of the IT would yield positive benefits for task performance associated with his/her job. Perceived usefulness suggests a user believes that using a particular IT will be beneficial. For the user to hold such a belief several conditions must be met. First, the user must have prior experience with the particular problem suggesting at least some understanding of the nature of the problem, even if the problem is not yet understood sufficiently to derive a solution. Generally, the user must also have experience with information technologies. This experience gives the user a basis for evaluating the capabilities of information technologies and how and in what circumstances they may be useful. In the formation of initial opinions, the user will not have much hands-on experience, but may know of the capabilities of information technologies through the media like television and newspaper) or other communication channels like friends(Jihyune, 2003).

2.4.2.2. Perceived Ease of Use

Perceived ease of use reflects “the degree to which an individual believes that using a particular IT would be free of effort, both physical and mental”. Davis(1986) argued that all others things being equal, IT perceived to be easier to use than another is more likely to be accepted by the individual. Perceived ease of use has both a direct effect and an indirect effect on attitude toward using. Perceived ease of use is determined, at least in part, by prior experience in the use of IT as well as by the amount of training received by the user. Previous experience and training increase an individual’s ability to use IT. For example, if an individual feels self-confident from prior experience with a particular IT, the individual will have a positive attitude toward the IT. This is the direct effect of perceived ease of use on attitudes. Davis (1986) also suggests a relationship between perceived ease of use and perceived usefulness. An increase in perceived ease of use may contribute to improved performance. The constructs, perceived usefulness and perceived ease of use, have been extensively investigated by researchers. These studies generally confirmed that perceived usefulness and perceived ease of use are important factors in affecting IT use.

2.4.2.3. Attitude

According to Schiffman and Kanuk (1997) attitude is “a learned predisposition to behave in a consistently favorable or unfavorable way with respect to a given object”. For example, in the case of attitude toward computers, the given object is a computer. Moreover, attitudes can be learned through purchasing behavior, direct experience with the product, information acquired from others, and exposure to mass media advertising. In addition, attitudes are relatively consistent with the associated consumer behavior(Jihyune , 2003).

In the context of TAM, Davis (1986) defined attitude as “an individual’s degree of evaluative affect toward the usage behavior.” Attitude toward using is jointly determined by the two beliefs (perceived usefulness and ease of use).

2.4.2.4. Behavioral Intention to Use

According to Davis (1986), behavioral intention reflects “the strength of the prospective user’s intention to make or to support the usage decision in their mind”. Behavioral intention is jointly determined by attitudes and perceived usefulness. The relationship between attitudes and behavioral intention implies that, all else being equal, individuals with positive attitudes will intend to perform the behavior. In addition, perceived usefulness directly influences behavioral intention. For example, even though an individual may dislike a particular IT, the individual may still use the IT if it has high level of perceived usefulness, regardless of the individual’s overall attitude toward the IT.

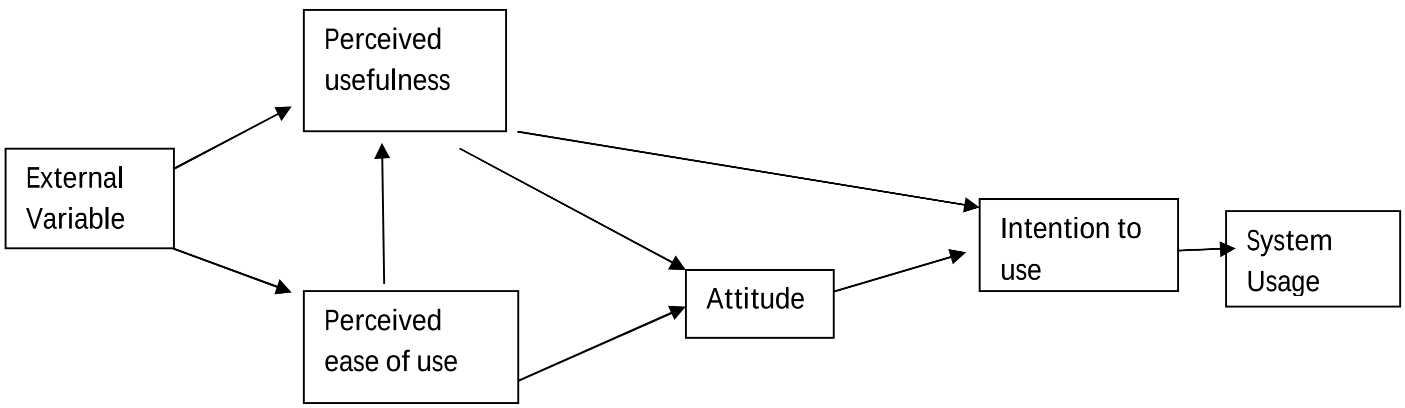

Figure 2: Technology Acceptance Model: source Davis, (1986)

To summarize, as shown in figure 1 above, using an information system is directly determined by the behavioral intention to use it, which is in turn influenced by the users' attitudes toward using the system and the perceived usefulness of the system. Attitude and perceived usefulness are also affected by the perceived ease of use. According to TAM, greater perceived usefulness and the perceived ease of use of an information system will positively influence the attitude toward this system. The attitude, in turn leads to a greater intention to use the system, which positively affects one's actual use of the system.

2.4.3. Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA)(Fishbein & Ajzen, 1975), which is widely used in social psychology and marketing studies to explain the determinants of intended behaviors . Both the TRA and TPB suggest that behavior is directly influenced by behavioral intention. But TPB model adds "perceived behavioral control" to the Theory of Reasoned Action.

2.4.3.1. Beliefs and Attitudes

TPB postulates that attitude toward the behavior refers to the degree to which people have a positive or negative feeling toward the behavior. Fishbein et al. (1975) suggested that attitudes are determined by the beliefs people have about the object of the attitude and beliefs are formed by the characteristics of the attitude object. Ajzen (1991) also stated that individuals' positive or negative attitudes depend on desirable or undesirable expected outcomes or results that are associated with an object. For example, people have a positive attitude toward online financial services when they believe that online financial services are a convenient technology for dealing with financial activities.

2.4.3.2. Subjective Norm

Subjective norms are influenced by the normative beliefs that refer to the perceived social pressure to perform or not to perform the behavior(Ajzen, 1991). Normative belief might be related to the influence of opinion among social groups such as family and friends. In TPB model subjective norm has a positive relationship with intention to adopt Internet banking services and it is negatively related to perceived risk. Attitude has a positive relation with subjective norm.

2.4.3.3. Perceived Behavioral Control

According to Ajzen (1991), perceived behavioral control reflects beliefs regarding access to the resources needed to perform a behavior. There are two components affecting perceived behavioral control. The first element is 'facilitating conditions' which reflect the availability of resources needed to perform a behavior. This might include access to the time, money, skills and other specialized resources required to perform a behavior. The second element is 'self-efficacy'. It is an individual's self-confidence in his/her ability to perform a behavior. Taylor and Todd (1995) suggest that resources (i.e., time, money) and the individuals' "self-efficacy" are important elements affecting behavioral intention and actual technology use. According to Ajzen (1991) when individuals believe that they have more resources, they believe they have fewer obstacles and perceive greater control over the behavior, while people lacking requisite resources and confidence perceive little control over the behavior thereby reducing intentions to perform the behavior.

2.4.4. Culture

There is no generally accepted definition for culture. Hofstede (1997) defines culture as the collective programming of the mind which distinguishes the member of one human group from another. Shore and Venkatachalam (1996) stated that culture reflects individual core values and beliefs. These values and beliefs are formed through childhood and reinforced all through their life.

Hofstede(1997) in his research put five culture dimensions. These dimensions are:

- Power distance (PD): the extent to which the less powerful member of the institution or organization within a country expects and accepts that power is distributed unequally. He indicated that the employees of the countries with high-power distance believe that the power is distributed unequally. Hence, they tend to accept and complete duties assigned by them by the superior, even if they are unconfident of the superior's work ethics.
- Uncertainty avoidance (UA): the extent to which the member of a culture feel threatened by uncertain or unknown situation. People with low uncertainty avoidance are willing to take risks and to take individual decisions.
- Individualism vs. collectivism (IDV). Individualism stands for a society in which the ties between individuals are loose. Everyone is expected to look after himself or herself and his or her immediate family only. While collectivism stands for a society in which people from birth onwards, are integrated into strong, interrelated in a group which during people's lifetime, continue to protect them in exchange for

unquestioning loyalty. He indicated that in low individualism cultures, people place higher importance on belonging to a group and respect opinion of the other members of the society.

- Masculinity vs. femininity (MAS). Masculinity stands for a society in which social gender roles are clearly different. While femininity stands for a society in which social gender roles overlap; both men and women are supposed to be modest, tender and concerned with quality of life.

In this research the collectivism dimension of culture is considered. So culture in this research means the way that people in a society are interrelated and place higher importance on belonging to a group.

2.4.5. Perceived Risk

Consumer behavior studies define perceived risk (PR) in terms of the customer's perception of the uncertainty and potential adverse consequences of buying a product or services. The degrees of risk that customers perceive and their own tolerance of risk tacking are factors that influence their purchase decision (Nasri, 2011). Perceived risk can also cause customer to reject new technological service and it is related to reliability and system failure. Customers are also worried that technology based service delivery will not work as expected and lack confidence that problems can be solved quickly (walker 2002).

2.5. Conceptual Frame Work

The conceptual frame work is developed based on the variables from TAM, Culture and Perceived Risk. As can be seen in figure 2 below, TAM posits that IT use is determined by the behavioral intention to use IT. The behavioral intention is affected by an individual’s attitude toward using internet banking and perceived usefulness. An individual’s attitudes are a joint function of perceived usefulness and perceived ease of use. Finally, perceived usefulness is determined by perceived ease of use as well as external variables, while perceived ease of use is influenced only by external variables. The external variable in this research are culture and perceived risk. The researcher proposes that culture directly affect perceived usefulness and perceived ease of use. While perceived risk directly influence attitude towards internet banking. Theses proposition are supported by many literatures which will be discussed later.

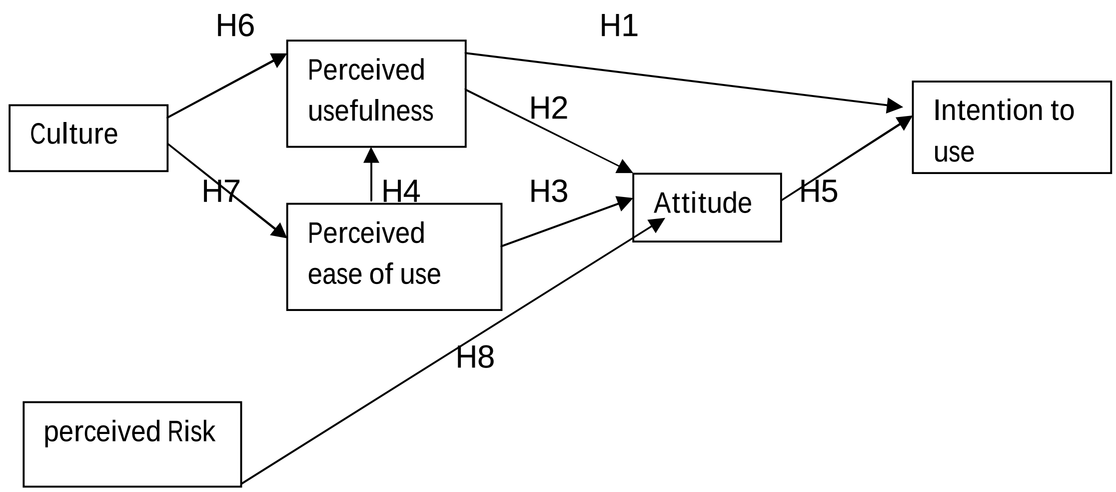

Figure 3: Modified conceptual frame work by the researcher

Chapter Three: Research Design and Methodology

3.1 Research Approach

Since the aim of the study is to examine the factors affecting the adoption of Internet banking services and hypothesis have to tested, quantitative research method is used. Inferential study design is used to determine how the independent variables explain the dependent variables of the study.

3.2. Data Sources

For proper achievement of the objectives of the study; the researcher used primary data sources which are customers of the three banks selected namely Dashen Bank, Commercial Bank of Ethiopia and United Bank. These banks are randomly selected from banks that are providing Internet banking services.

3.3. Data Collection Method

Primary data was collected through questionnaires and the questionnaire was prepared in the way that is relevant to the situation so as to decrease invalid responses. The questionnaire was adapted from the work of Mohammed (2013), Lu (2010), and Ozelm (2012). As shown in appendices "A", the questioner has two section: the first section addresses the general banking practice of the respondents, and the second ask about their perception. The questions were prepared based on the variables namely perceived usefulness, perceived ease of use, attitude, culture, and perceived risk. Each variable have three to four questions. So as to help respondents understand the questions, the questionnaire was translated to Amharic language.

The five point likert scale was used for the statement of the second section of the questionnaire(see appendices) ranging from 1 for "strongly disagree", 2 for "disagree", 3 for "no opinion", 4 for "agree", and 5 for "strongly agree".

Reliability and validity test was conducted to measure the internal consistency of the data items and to measure whether an instrument actually measures what it is supposed to measure respectively.

3.4. Measurement of the Constructs

The constructs in this research are defined in the following:

Perceived Ease of Use (PEOU) - is defined by Davis (1986) as “the degree to which a person believes that using a particular system would enhance his job performance”. Three question items are used to measure PEOU. The items are Internet banking easiness, its complexity and the ability to conduct Internet banking with no one help.

Perceived Usefulness (PU) - is defined by Davis (1986) as “the degree to which a person believes that using a Internet banking would be free of effort”. Four question items are used to measure PU. The items imply its usefulness, its cost, and time taken to conduct banking transaction using Internet banking.

Attitude (ATT) - refers to an individual’s positive or negative feelings (evaluative affect) about performing a particular behavior (Fishbein and Ajzen, 1975). Three question items are used to measure ATT. The items indicate Internet banking convenience to use and idea of using Internet banking.

Culture - refers to individual core values and beliefs which are formed through childhood and reinforced all through their life. Three question items are used to measure CU. The items represent the collectiveness of the society. The items were adapted from the work of Mohammed (2012).

Perceived Risk - refers to the degree that customers think that using Internet banking services will expose them to monetary loss or fraud. Four question items are used to measure perceived risk. The items imply its exposition to fraud, and its security aspect.

Intention to Use (INT) - refers to customers’ intention to use Internet banking services. one question item which measure their plan to use Internet banking In the near future.

3.5. Reliability and Validity Test of the Instruments

Before empirical analysis are conducted by using the instrument, reliability and validity test were done on items in the questionnaire instrument. As shown in the appendices "B", the Cronbach alpha values for individual dimensions were also 0.881 (for perceived usefulness), 0.761 (for perceived ease of use), 0.860 (for perceived risk), 0.841 (for attitude), and 0.701 (for culture). According to Ozelm (2012), all of these show that instrument of this research was suitable for further statistical analysis since their value are greater than 0.7.

Validity on the other hand refers to whether an instrument actually measures what it is supposed to measure. To assure validity, questionnaires were designed on the basis of previous studies' questionnaires and review of related literatures. In addition convergent validity and discriminant validity were tested. According to Fornell and Larcker(1981), two criteria evaluate convergent and discriminant validity. For convergent validity, all factor loading should be significant and exceed 0.5 and for discriminant validity, average variance extracted should exceed 0.5.. According to table 3.1. below convergent validity is shown in each variable since all factor loadings are above 0.5 for all item. There is also discriminant validity in all items since the value of average variance extracted exceed 0.5.

Constructs	Items	Factor loading	Average variance extracted
Perceived Usefulness	PU1	0.762	0.578
	PU	0.579	
	PU	0.575	
	PU	0.625	
Perceived ease of use	PEU	0.767	0.629
	PEU	0.756	
	PEU	0.819	
Perceived risk	PR	0.952	0.726
	PR	0.963	
	PR	0.857	
	PR	0.752	
Attitude	ATT	0.748	0.786
	ATT	0.908	
	ATT	0.856	

Culture	CU	0.949	0.688
	CU	0.758	
	CU	0.852	

Table 3.2. Validity test

3.6. Data Analysis Method

All the data were coded and entered in to Statistical Package for Social Sciences (SPSS) version20.0. There after descriptive analysis was carried out by using SPSS version 20.0. Structural analysis modeling software, SMARTPLS version 3.2.1., was used to test the relationship between the variables.

Descriptive and inferential analysis was used.

Descriptive Analysis: The researcher used descriptive analysis to reduce the banking practice information in to a summary format by tabulation (the data arranged in a table format).

Inferential Analysis is used to analyze the relationship between two variables and to assess how the dependent variables explain the independent variable.

3.7. Sampling Method

The data was collected from a convenience sample of 315 individuals who are not using Internet banking services, irrespective of their Internet banking purpose, gender, occupation, or income. For each bank 105 questionnaires were distributed. Convenience sampling is used in the study due to the practical difficulties in obtaining the list and information of the target population and since it enable researchers to collect data more effectively and quickly.

Customers were approached to participate in the research while they were waiting their turn to the counter and the researcher stressed clearly “the voluntary participation” criteria before distributing the questionnaire to each participant to fill in.

It was proposed in the research proposal that a sample of 300 customers will be taken. So to have a valid response of 300, an additional 15 questionnaires were added. This is because most of the time 100% response rate is not expected. This means each bank had 5 additional questionnaires. From the 315 questionnaires distributed, fortunately only four of them were incomplete and as a result discarded. So from 311 questionnaires left, 300 were selected randomly making sure that each bank has 100 questionnaires.

A sample of 300 were selected because Lu (2010) recommended that "minimum sample sizes for quantitative consumer surveys are of the order of 300 to 500 respondents". Therefore, this study used usable responses of 300 questionnaires completed.

Chapter Four: Data Analysis, Interpretation, and Discussion of Result

This chapter presents the results of the study based on the empirical analysis of the data collected from the research respondents and discussion of results with respect to previous research findings and literature. In this chapter, both descriptive and inferences on the data analysis and procedures are presented.

4.1. Descriptive Analysis

As shown below in table 4.1 equal number(33.3%) of the respondents were from Dashen bank, Commercial bank of Ethiopia, and United bank. Most of the respondents (76%) perform their banking transaction by directly visiting bank branch. Only 1.3% of the respondents adopt mobile banking. 40% of the respondents said that their reason to visit bank is to withdraw cash and 35% of the respondents visit bank to make a deposit. This can be reason for not adopting internet banking since they cannot perform this transaction through it. When most of the respondents (71.3%) use internet sometimes, 23.7% of the respondents use internet daily and 5 % never use internet. Regarding the question of where the use internet, most of them respond that they have to visit internet cafe to get internet access. This is not good because they may not feel safe to handle their banking transaction in a computer where other people will use later on.

Table 4.3. Descriptive result of respondents

	Category	Frequency	Percent
Financial Institution	Dashen bank	100	33.3
	Commercial bank of Ethiopia	100	33.3
	United bank	100	33.3
Main banking method	ATM	68	22.7
	Visiting branch	228	76.0
	Mobile banking	4	1.3
Main reason to visit a bank	To make a deposit	107	35.7
	To withdraw cash	120	40.0
	To get banking information	40	13.3

	To transfer money	33	11.0
Internet usage	Daily Sometimes Rarely	71 214 15	23.7 71.3 5.0
Location when using internet	Via mobile In internet cafe At home	102 161 37	34.0 53.7 12.3

4.2. Inferential Analysis

4.2.1. Hypotheses Testing

In this study structural link of research model was analyzed using the structural equation model software, SMARTPLS version 3.2.1. Table 4.4 shows the summarized result of the hypotheses test.

Table 4.4. Summary of hypothesis result

Hypothesis	Effect	Path coefficient	T-statistic	P values
H1	PU-INT	0.421	2.456	0.000
H2	PU-ATT	0.458	3.327	0.000
H3	PEU-ATT	0.235	1.845	0.000
H4	PEU-PU	0.348	3.225	0.005
H5	ATT-INT	0.411	5.541	0.001
H6	CU-PU	0.468	6.008	0.000
H7	CU-PEU	0.514	10.529	0.015
H8	PR-ATT	-0.613	7.061	0.000

Hypothesis 1

In the first hypothesis, it was hypothesized that perceived usefulness has a positive effect on consumers' intention towards the use of Internet banking services. From table 4.4 it can be seen that there is a positive relation between perceived usefulness and intention to adopt Internet banking services given by 0.421. Since p<0.01 the relationship can be considered significant. This means perceived usefulness has a significant positive effect on intention to adopt Internet banking services. Therefore, hypothesis one is supported.

Hypothesis 2

The second hypothesis was that perceived usefulness has a positive effect on consumers' attitude towards the use of Internet banking services. The above table 4.4 result show that perceived usefulness has a positive correlation of 0.458 and statistically significant relationship (p<0.01). Therefore, hypothesis 2 is supported which means perceived usefulness has a significant positive effect on attitude.

Hypothesis 3

Hypothesis three stated that perceived ease of use has a positive effect on consumers' attitude towards the use of Internet banking services. As indicated in the above table 4.4 perceived ease of and attitude have positive relation of 0.235. Since this relationship is significant(p<0.01), hypothesis 3 is supported. Perceived ease of use has a positive effect on attitude.

Hypothesis 4

Perceived ease of use has a positive effect on consumers' perceived usefulness towards the use of Internet banking services was the fourth hypothesis of this research. Table 4.4 show that perceived usefulness and perceived ease of use have a positive relation with Beta result of 0.348 and this relationship is statistically significant (p<0.01). Thus hypothesis four is supported which imply that perceived ease of use has a positive effect on perceived usefulness.

Hypothesis 5

The fifth hypothesis was that attitude has a positive effect on consumers' intention towards the use of Internet banking services. The above table 4.4 result show that attitude and intention to adopt Internet banking services has a correlation of 0.411 and statistically significant relationship($p<0.01$). Therefore, hypothesis 5 is supported which means attitude has a positive effect on intention to adopt Internet banking services.

Hypothesis 6

In the sixth hypothesis, it was hypothesized that culture has a positive effect on consumers' perceived usefulness towards the use of Internet banking services. Table 4.4 show that positive(β =0.468) and significant($P<0.01$) relationship between culture and perceived usefulness exists. So hypothesis six is supported.

Hypothesis 7

Hypothesis seven stated that culture has a positive effect on consumers' perceived ease of use towards the use of Internet banking services. As indicated in the above table 4.4 culture and perceived ease of have positive relation of 0.514. Since this relationship is significant($p<0.01$), hypothesis 7 is supported. Culture has a positive effect on perceived ease of use.

Hypothesis 8

Perceived risk has a negative effect on consumers' attitudes towards the use of internet banking services was the final hypothesis of this research. Since table 4.4 show that the relationship between perceived risk and attitude is statistically significant($p<0.01$) and have negative relation of -0.613, hypothesis 8 is supported.

4.2.2. Explaining Intention to Adopt Internet Banking Services

The intention to adopt internet banking services is jointly predicted by perceived usefulness(β=0.421, $p<0.01$) and attitude(β=0.411, $p<0.01$) directly. As shown in figure four below these two variables explain 56% of the variance in the dependent variable which is intention to adopt internet banking service.

4.2.3. Explaining Attitude

Attitude is jointly predicted by perceived usefulness (β =0.458, $p<0.01$), perceived ease of use(β =0.235, $p<0.01$), and perceived risk (β =-0.613, $p<0.01$). As shown in figure four below these three variable explain 31.9% of variation in attitude.

4.2.4. Explaining Perceived Usefulness

Perceived usefulness is jointly predicted by culture(β =0.468, $p<0.01$) and perceived ease of use(β =0.514, $p<0.01$). As shown in figure four below these two variables jointly explain 50.7% of variation in perceived usefulness.

4.2.5. Explaining Perceived Ease of Use

Perceived ease of use is predicted by culture (β =0.514, $p<0.01$) and culture explain 26.5% of variation in perceived ease of use.

The result of the structural modeling analysis is depicted in the following figure.

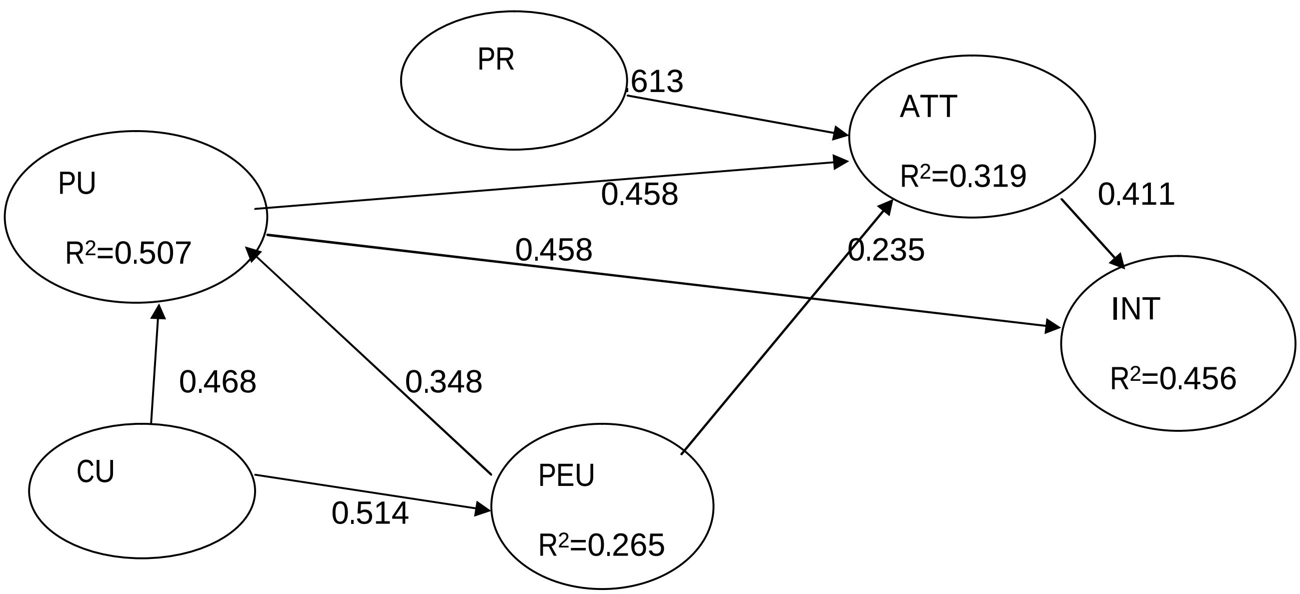

Figure 4. Results of structural modeling analysis

Summary of Hypothesis Test

The above table 4.2. show that perceived usefulness (β=0.421, $p<0.01$) positively and significantly influence intention to adopt internet banking services . So hypothesis one is supported. Attitude is significantly and positively affected by perceived usefulness(β =0.458, $p<0.01$) positively and significantly influence attitude which means hypothesis two is supported. Perceived ease of use(β =0.235, $p<0.01$) positively and significantly influence attitude which means hypothesis three is supported. Perceived ease of use(β =0.348, $p<0.01$)also positively and significantly influence perceived usefulness. This means hypothesis four is supported. The intention to adopt internet banking services is positively and significantly influenced by attitude (β=0.411, $p<0.01$). So hypothesis five is supported. Culture has a positive effect on perceived usefulness(β =0.468, $p<0.01$) and perceived ease of use(β =0.514, $p<0.01$). This means hypothesis six and seven are supported. Perceived risk(β =-0.613, $p<0.01$) has a significant negative relationship with attitude. So hypothesis eight is supported. This means that all hypothesis are supported.

Chapter Five: Summary, Conclusion, Research contributions, Recommendations and Further Research

5.1. Summary of Findings

The descriptive part of the analysis showed that most of the respondents perform their banking transaction by directly visiting bank branch. Only 1.3% of the respondents adopt mobile banking. The major reasons for respondents to visit bank are to withdraw cash and to make a deposit.

Results from structural equation modeling analysis revealed that intention to adopt internet banking service is negatively, significantly, and indirectly related to perceived risk through attitude, and a significant, positive, and direct relationship between attitude and intention to use internet banking services exists. The construct perceived usefulness positively, significantly, and directly influence intention to use internet banking services. In addition it also indirectly influence intention to use internet banking services through attitude. perceived ease of use also positively and indirectly influence intention to use internet banking services through attitude. Culture has a significant and positive relationship with perceived usefulness and perceived ease of use.

The results of this study go in line with previous studies, Mohammed (2012); Kent et al. (2011); Maduko (2013); Jihyune (2003); Nasri (2011); Yitbarek et al. (2013); Sara (1999).

5.2. Conclusion

The objective of this study is to analyze the factors affecting bank customers' decisions to adopt Internet banking in Addis Ababa. The results showed that all the factors considered (perceived usefulness, perceived ease of use, culture, attitude, and perceived risk) have significant effects on behavioral intention to use online banking.

Based on the statistical analysis and the results of the study, a number of conclusions can be drawn. First: the results of the study revealed that perceived usefulness and perceived ease of use has a positive and significant impact on customers' attitude toward Internet banking services. This means customer will have good attitude towards Internet banking, if the perceive it as useful and ease to use.

Second: the result showed that culture has a positive and significant impact on perceived usefulness and perceived ease of use. This means social influences could result in potential customers transferring to internet banking services.

Third: the results revealed a negative and significant impact of perceived risk on the customers' attitudes to use Internet banking services. This means customers will have a bad attitude to Internet banking services with high risk.

Fourth: the result showed that perceived ease of use significantly and positively affect perceived usefulness. This means the more customers perceive internet banking services as ease to use, the more they perceive it as useful.

Fifth: the results showed that attitude has a positive and significant influence on customers' intention to use Internet banking services.

5.3. Research Contribution

By achieving the first three research objectives, this research contributed two important things. First it showed that culture plays a significant role in the adoption of Internet banking services since it was proved that culture positively and significantly affect perceived usefulness and perceived ease of use. The second contribution of the study is that by proving the constructs of TAM influence on intention to adopt internet banking in Addis Ababa, it contributed to the limited empirical studies on customers adoption of Internet banking in Ethiopian context and can be used as a reference for further studies in this area.

5.4. Recommendation

The researcher based on the findings recommend the following points:

- Since perceived risk has influence on customer attitude towards the adoption of internet banking services, banks need to develop risk reducing strategies that could reduce the customers' concerns about such services. These can be either done by devising security policies to improve the security issue or convince customers it is not risky which may assist in inspiring high confidence in Internet banking service.

- Banks should make internet banking services more useful and usable. This means they should focus on the full functionality of their systems to response efficiently to the different banking needs of users. They could achieve this by increasing the customers' awareness of the usefulness of using Internet banking services s through advertising.
- 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.
- Since both customers and banks will be benefited from these services, banks should not expect customers to come to them rather go to customers. This means going to different institutions where they can find group of potential customers at one place.
- Government should also improve ICT infrastructure because Internet banking services cannot be used unless there is good and reliable internet connection.

5.5. Further Researches

First, this research was conducted in Addis Ababa but peoples' beliefs and attitudes can be significantly different across different regions especially in case of culture. So researches in different area of Ethiopia should be conducted.

Second, Internet banking is new technology in Ethiopia. This research identified five factors that may influence consumers' adoption of Internet banking but there may be many factors that can influence the adoption of Internet banking services. So additional empirical research is required to identify and examine other factors that can impact on customers' adoption of Internet banking services.

Finally, Sara (2008) pointed that prior researches have suggested that determinants of behavioral intention change in terms of user' level of experience, so more researches should be conducted as the number of Internet banking services user increase.

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Appendices A

```
RELIABILITY
  /VARIABLES=pu pu2 pu3 pu4 peu peu2 peu3 pr pr2 pr3 pr4 att att2 att3 cu cu2
cu3 int
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability coefficient for the study variables

Variables	No. of items	Cronbach's alpha
Perceived usefulness	4	0.881
Perceived ease of use	3	0.761
Perceived risk	4	0.860
Attitude	3	0.841
Culture	3	0.701

Appendices B

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF GRADUATE STUDIES

DEPARTMENT OF MANAGEMENT

MBA PROGRAM

QUESTIONNAIRE

Introduction

Dear respondent,

My name is Bisrat Alebachew. I am attending MBA (Masters of Business Administration) program at Addis Ababa University. I am conducting a research thesis on the title **"Factors Affecting the Adoption of Internet Banking Services".** Now I need to collect information from you for the successful completion of my research study. Please assist me by giving correct and complete information.

General Instructions: For your free and genuine responses, please circle only one choice for the first section and use the tick (√) mark for the second section.

Section 1 (General banking practice)	
Please circle your answer	
Question	Answer
1. Which financial institution do you use?	(1). Dashen bank (2). Commercial bank of Ethiopia (3). United Bank
2. What is the main banking method for your banking services?	(1). ATM (2). Visiting bank's branch (3). Mobile
3. What is the main reason that you visit your bank branch (please choose only one reason)	(1). To make a deposit (2). To withdraw cash (3). To get banking information (4). To transfer money
4. How often do you use internet?	(1). Daily (2). Some times (3). Rarely
5. Where do you use internet?	(1). Via my mobile phone (2). In internet cafe (3). At home(office)

Section 2					
	1	2	3	4	5
Perceived Usefulness					
1. I think Internet banking will enable me to accomplish my banking task more quickly.					
2. I think Internet banking will make it easier for me to do my banking.					
3. I think Using internet banking will decrease my cost of banking.					
4. I think Internet banking saves time compared to traditional banking.					
Perceived Ease of Use					
5. I think internet banking is easy to use.					
6. I think Internet banking is not complicated to use.					
7. I think I can use internet banking without anyone helping me.					
Perceived Risk					
8. I think Using internet banking may expose me to fraud or monetary lose.					
9. I am not confident with the security aspects of internet banking.					
10. I think Internet banking is not as secure as conventional banking (going directly to the branch).					
11. I think Using internet banking is not safe .					
Attitude					
12. I like the idea of using internet banking services.					
13. I think Internet banking is more convenient than visiting bank branch.					
14. Using internet banking is an exciting idea.					
Culture					
15. I think Using Internet banking services gives me higher status among my peers.					
16. I would use internet banking if my people around me initiate me.					
17. I am ready to accept new technology to handle my banking transaction.					
Intention to Use					
18. For future task, I would use internet banking.					

Thank You !