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# **Factors Affecting Customers Adoption of Mobile Banking\\ the Case of Commercial Bank of Ethiopia\\.**

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**Addis Ababa, Ethiopia  
June, 2016**

# **Factors Affecting Customers Adoption of Mobile Banking\\ the Case of Commercial Bank of Ethiopia\\.**

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**A Research Project Submitted to School of Commerce  
In partial fulfillment of the Requirements for the  
Degree of Master of Arts in Marketing Management**

**Addis Ababa University  
School of Commerce Graduate Program  
Department of Marketing Management**

**Addis Ababa, Ethiopia  
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**Addis Ababa University**  
**School of Commerce Graduate program**  
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**(Approval Sheet)**

**Factors Affecting Customers Adoption of Mobile  
Banking the Case of Commercial Bank of  
Ethiopia**

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## **Statement of Certification**

This is to certify that **Biruk Tesfaye** has carried out his research work on the topic entitled Factors Affecting Customers Adoption of Mobile Banking the Case of CBE is his original work and is suitable for submission, for the award of Masters Degree in Marketing Management.

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**Advisor: Mesfin Workineh**  
**June, 2016**

## **Statement of Declaration**

I, Biruk Tesfaye, declare that this Master research project entitled —Factors Affecting Customers Adoption of Mobile Banking the Case of Commercial Bank of Ethiopia is submitted in partial fulfillment of the requirements for the degree of Master of Arts in Marketing Management at the Addis Ababa University School of Commerce. This project contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this project is my own work.

By: Biruk Tesfaye

Signature\_\_\_\_\_

Date\_\_\_\_\_

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# **ABSTRACT**

*Advances in telecommunication technologies have enables organizations such as banks and other financial institutions to offer more online services to their customers. Mobile banking is one of such services that many banks have been venturing into with large investment. The purpose of this study is to identify factors influencing the adoption and usage of mobile banking as the tool for help banks understand and improve the service in order to gather the expected benefits and can add on to the existing literature concerning mobile banking in the Ethiopian context. From the literature, four determinant factors are identifies. Each variable is measured using 5-point Likert-scale.out of the primary data collection methods; questionnaires were distributed to target respondents of customers of Commercial bank of Ethiopia for mobile banking users. This study is based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model specifies the causal relationships between Performance expectancy, Perceived risk, Trust, Mobile banking service quality and Behavioral intention items. The data were analyzed using SPSS version 20. The findings of this study revealed that Performance expectancy, Trust, were the factors affecting users having intention to adopt mobile banking significantly. Meanwhile, the Mobile banking service quality and perceived risk was found to be insignificant in this study. Furthermore, this study also manages to present demographic variables effects toward independent variables and towards behavioral intention to adopt mobile banking, and found that gender is non-significant factor for mobile banking adoption. Age and educational qualification is found as significant factor for adoption of mobile banking except for perceived risk. The student researcher recommended that CBE needs to use innovative marketing and educational promotions and also needs to implement policies and procedures to improve people's trust in the banks mobile banking service.*

**Key words:-** Behavioral Intension, Performance Expectancy, Perceived Risk, Service Quality and Trust.

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# LIST OF ABBREVIATION

ANOVA	Analysis of Variance
ATM	Automated Teller Machine
CBE	Commercial Bank of Ethiopia
DF	Degree of Freedom
FC	Facilitating Condition
IDT	Innovation Diffusion Theory
LMTS	local Money Transfer
PE	Performance Expectancy
PR	Perceived Risk
SQ	Service Quality
S.E	Standard Error
SPSS	Statistical Package for Social Science
T	Trust
TAM	Technology Acceptance Model
TPB	Theory of Planed Behavior
TRA	Theory of Reasoned Action
UTAUT	Unified Theory of Acceptance & Use of Technology

# CHAPTER ONE

## INTRODUCTION

### 1.1. CHAPTER OVERVIEW

This chapter underlines the importance of the research, formulates its objectives, explains the rationale and discusses its significance and potential value. Moreover in this chapter background of the study and the company also presented.

### 1.2 BACK GROUND OF THE STUDY

#### 1.2.1. FINANCIAL INSTITUTION

One of the main objectives of financial institutions is mobilizing resources (in particular domestic saving) and channeling them to the would-be investors. This intermediation role of financial institutions takes different forms in different economic systems (Alemayehu, 2006). As well, for commercial bank of Ethiopia the main (core) objective is mobilizing resource.

As can be seen in Alemayehu (2006) Ethiopians financial system is small and largely dominated by state. Currently public banks account for 67% of total deposits and 55% of loans and advances. Government dominates lending, controls interest rates, and owns the largest bank, the commercial bank of Ethiopia (CBE) whose assets represent about 70%the sectors total, as of April 2012. The financial sector has recently been experiencing a reversal of financial deepening. The broad money to GDP decreased from 32% to 27% over the same period. Negative real interest rate (stemming from high inflation and low deposit rated), high reserve money growth, bank-by-bank credit ceiling, and a lack of competition in the banking sector have contributed to the economy's continued demonetization in recent years, which is posing increasing risks to financial stability.

Because there is negative real interest in order to encourage the societies saving culture both the public and private owned banks started to establish electronic banking and prize linked deposit mobilization. CBE is one of the public owned banks who are trying to mobilize resources through electronic banking and prize linked deposit mobilization.

In order to mobilize resources (in particular domestic saving) and channeling them to the would-be investor CBE starts mobile banking service by the year 2013 and the service enable users to access their bank account, make fund transfer, payment and balance inquiries as well as get instant notifications on all accounts linked with mobile banking services using SMS, XHTML and downloadable application channels, even if mobile banking has the stated benefits for both the bank and for the customers there is low rate of acceptance.

As per CBE corporate performance, half year report (2015) The bank has only managed to recruit 303,288 customers into using this service out of over 9.5 million accounts holders as of December 30 2014. This amounts account to 3% of all CBE customers. Furthermore with the same period Active Mobile banking users from the total is 73,990 i.e. 24.4% total subscribers. LMTS (local money transfer) transaction number accounts 5,145 with a value of Birr 19.2 million and Fund Transfer transaction 30,285 with a value of Birr 100.5 million.

In fact mobile banking is in an infant stage for Ethiopian bank customers, but the need for research is essential in this stage, because previous studies which are done in mobile banking and factor affecting the adoption of mobile banking usage have result different finding. For example Roselyne (2012) indicates that there is no significant relationship between perceived ease of use and adoption of Mobile banking technology. In other view Chian (2012) reveals the perceived financial cost and perceived credibility are two crucial factors influencing people intention to adopt mobile banking. For these different findings research in mobile banking is questionable and need deep and further study.

## 1.2.2 HISTORY OF BANKING IN ETHIOPIA

In 1905 emperor Minilik II and Mr. Ma Gillivray, representative of the British owned national bank Egypt marked the introduction of modern banking in Ethiopia. Following the agreement, the first bank called bank of Abyssinia was inaugurated in February 16, 1906 by the emperor, and it was managed by Egyptian national bank operates until its liquidation in 1931 (CBE CATS procedure, 2014).

In August 29, 1931 bank of Ethiopia was established with capital of 750,000 pound, and in the time of invasion Italian banks established branches of their main banks namely Banca d' Italia, Banco di Roma, Banco de Napoli and Banca de Naziionale Del Lavoroand (CBE CATS procedure, 2014).

In 1941 another foreign bank Barclay bank started its operation and operates up to 1943, and in 1963 Ethiopian monetary and banking law that separated the function of commercial and central banking creating national bank of Ethiopia and gives birth to commercial bank of Ethiopia also, 16 Dec, 1963 as per the proclamation No. 207/1955 of Oct 1963, CBE took over the commercial banking activity and its starting capital was 20 million Ethiopian birr (CBE CATS procedure, 2014). Now CBE have 987 branches as of Nov26, 2015 and total deposit 244.34 billion and close to 11 million customers as of sep30, 2015.

## 1.3 STATEMENT OF THE PROBLEM

The installation of customer friendly technology (such as menu driven automated teller machines, mobile and Internet banking services) as a means of delivering traditional banking services has become commonplace in recent years as a way of maintaining customer loyalty and increasing market share (Rahel, 2012).

As a result mobile banking service can provide benefits for both the service provider and the customer as well.

As Rahel (2012) said many researchers from different areas have proved that the use of technology positively affects the customers 'satisfaction, in banking industry. But researches evidenced that, technology based banking service can not satisfy each and every need of the

customers' since every single customer has various needs and wants regarding particular service. Thus, there might be some possibilities of gaps between customer's expectation and actual service perception in ICT based banking service, which leads to customer dissatisfaction. As a result studying what factors really push people's toward using that particular technology will be crucial in order to provide the service as the expectation of customer's.

Mobile banking provides banking services such as fund transfer (account transfer), account alert (security alert), account balance update and also LMTS (local money transfer) on a 24-7 basis. Due to its convenience mobile banking is now everywhere and is used by a diverse set of users located around the country. Despite this success, as per my observation mobile bank users still suffer from a variety of problems.

Customers may receive account alert after long period of time their account was debited or credited, other customers may receive double alerts for a single transaction made and in order to confirm that they may be obligated to go to their branch which is totally against the purpose of mobile banking, When customers made local money transfer using mobile banking service they were not find a receipt, if someone doesn't get a receipt after transferring money it may create dissatisfaction or lead them to loss trust on the system. And most customers think that mobile banking service serves as only to transfer money and also they consider as they are going to be charged additional money.

As per CBE corporate performance, half year report (2015) the bank has only managed to recruit 303,288 customers into using this service out of over 9.5 million account holders as of December 30, 2014 which is only 3% of the entire bank customers while in India there Was 12,000,000 mobile banking users.

As per The Unified Theory of Acceptance and Use of Technology (UTAUT) model factors such as performance expectation, perceived risk and trust and service quality have a significant impact on the adoption of new technologies and in this study the researcher will try to analyze the impact of such and other factors on the adoption of mobile banking.

#### **1.4. RESEARCH QUESTIONS**

- What are the main factors which influence the adoption of mobile banking in CBE?
- How demographic factors affect the adoption of mobile banking?
- Does performance expectancy have an impact on the adoption of mobile banking?
- How service qualities affect adoption of mobile banking?
- To what extent perceived risk by clients influence adoption of mobile banking?
- Does trust for the system can influence adoption of mobile banking?

#### **1.5.OBJECTIVES OF THE STUDY**

##### **1.5.1 Main research objective**

The study was focused on customers adoption of mobile banking services in the case of commercial bank of Ethiopia the main objective of the study is to identify factors influencing the adoption of mobile banking.

##### **1.5.2 Specific objectives**

- To determine the relationships between demographic factors (gender, age, and education) with the adoption of mobile banking.
- To examine how performance expectancy affects adoption of mobile banking.
- To explore service quality's impact in the adoption of mobile banking.
- To examine the influence of users' perceived risk on adoption of mobile banking.
- To evaluate the effect of trust in mobile banking adoption.

#### **1.6. SIGNIFICANCE OF THE STUDY**

The study has benefits to different parties.

This study provides information for the management of CBE and other commercial banks about customer's adoption of mobile banking and factors which affect the adoption process, knowing that helps the organizations to make an adjustment to attract and satisfy the requirement of customers and also to achieve what's planed to achieve by mobile banking program.

This study have a benefit to the researcher, it will help him to get more information about the bank industry, and mobile banking it also helps him to enhance his knowledge.

The study also have a benefit for other researchers who want to make study on the same field of study, mobile banking and e-payment as a starting point for their study and add something on the literature.

### **1.7. SCOPE OF THE STUDY**

Banks in Ethiopia and CBE provides various services but, this study focus only on the area of the adoption on mobile banking specifically in the case of CBE.

The study was covered only on the area of adoption of mobile banking. The population defined for this study was limited to the one district of CBE that are found in Addis Ababa namely East Addis district, and it was used only questionnaires to get the respondent replay on the adoption process and also it distribute the questionnaire only on Eight selected branches.

### **1.8. Limitation of the study**

Despite the useful findings of the study, this study has several limitations that need to be acknowledged. And also the data for this study was only collected from commercial bank of Ethiopia in Addis Ababa which have technological different environment from some other places and other banks. The sample for this study was biased in terms of gender. The gender distribution of the study subjects was 64.7 % male and 35.3 % females. Thus, men were overrepresented and also in this study data was collected from the one who already adopted mobile banking and didn't consider the one who have an account but didn't adopt mobile banking in general it have narrower scope than it needs to have.

## 1.9. DEFINITION OF TERMS

- **Perceived Usefulness**-The degree to which a person believes that using a particular system would enhance his or her job performance. (Davis et al. 1989)
- **Perceived Ease of Use**- Perceived ease of use refers to the degree to which a person believes that engaging in online transactions via Mobile banking would be free of effort.(Davis et al. 1989)
- **Ease of Use**- The degree to which using an innovation is perceived as being difficult to use.
- **Complexity**- The degree to which a system is perceived as relatively difficult to understand and use. (Thompson et al. 1991)
- **Performance Expectancy**- Performance expectancy is defined as the degree to which an individual believes that using the system will help him or her to attain gains in job performance. (Venkatesh et al. 2003)
- **Perceived risk**- The risk regarded to the service. It also refers to the users' expectation of suffering a loss in the outcome of using Mobile Banking. (Ali & Hayat, 2014).
- **Effort Expectancy**- Effort expectancy is defined as the degree of ease associated with the use of the system (Venkatesh et al. 2003).
- **Attitude toward Behavior**- An individual's positive or negative feelings about performing the target behavior. (Davis et al. 1989)
- **Behavioral Intention**- refers to the user's likelihood to use online transactions through Mobile banking (Ali & Hayat, 2014).
- **Active Mobile banking users**- according to the bank procedures active mobile banking users are those customers that use mobile banking technology at-list once after registration. It might be for checking the customer accounts balance and for other services.

### **1.10. Organization of the Paper**

The study was organized under five chapters. The first chapter includes background information, Statement of the problem, objectives, significance of the study, Scope of the study, limitations of the study, organization of the paper and operations definition, the second chapter deals with review of related literature and the proposed model based on the literature review. The third chapter is all about research methodologies used to conduct this study, the fourth chapter presents the findings from the respondents wherein the data gathered are analyzed and interpreted and covers the statistical analysis methods and details the results of this research that include demographic statistics, reliability analysis, frequency distribution, correlation and regression, T-test and ANOVA tests. Discussion and implication on relevant findings are presented in this chapter as well. Finally, the last chapter attempt to summarize or conclude and recommend possible solutions to the problems and assesses the limitations and future research.

# **CHAPTER TWO**

## **REVIEW OF RELATED LITERATURE**

### **2.1 INTRODUCTION**

In this chapter covers:

- The concept of mobile banking.
- Definitions of mobile banking.
- Characteristics (unique features of mobile banking).
- History of mobile banking
- Services offered by mobile banking
- Theoretical review of models which helps to measure technology acceptance (technology adoption) with their limitations.
- Empirical review and the proposed model to conduct this study associated with hypothesis.

### **2.2 THE CONCEPT OF MOBILE BANKING**

Mobile banking is using a mobile phone to access your bank or credit union account. This can be done either by accessing your bank or credit union's web page through the web browser on your mobile phone, via text messaging, or by using an app downloaded to your mobile phone ( Board of Governors of the Federal Reserve System, 2015).

Mobile Banking refers to provision of bank-related financial services with the help of mobile telecommunication devices. The scope of offered services may include facilities to conduct bank transactions, to administer accounts and to access customized information (Tiwari & Buse, 2004).

M-banking refers to the use of mobile telecommunications devices to offer banking services (Mari, 2003).

The use of mobile banking offers a way of lowering the cost of moving money from place to place (Donner and Tellez, 2008) at the same time it brings more users into contact with formal financial service (Anyasi & Otubu, 2009).

Porteous (2006) classified mobile banking in to two; firstly transformational mobile banking, which is the provision of banking service using a mobile phone to reach the unbanked population. Secondly additive mobile banking, in which the mobile phone is simply an additional channel that is used to provide banking service to those already banked.

The delivery of a mobile banking service to a consumer involves the participation of four primary players; A Bank, Mobile Network Operator (MNO), Mobile Banking Technology Vendor, and the consumer (Gavin, 2007).

M-commerce is an area which is rapidly changing the way people conduct their financial transactions. Tiwari, Buse & Herstatt (2006) discussed the features of mobile Commerce. According to the author M-commerce is characterized by many unique features as compared to the conventional form of commercial transactions like: Ubiquity, Immediacy, Localization, Instant Connectivity, Proactive Functionality and Simple Authentication Procedure.

- **Ubiquity:** It means users can avail the services and carry out transactions independent of the geographical location ('anywhere' feature).
- **Immediacy:** This feature is attractive in the way users can buy the goods anytime, i.e. without a wait ('anytime' feature).
- **Localization:** Positioning technologies i.e. GPS (Global Positioning Services) allows companies to offer goods and services to the user as per his/her current location.
- **Instant Connectivity:** With the introduction of the GPRS (General Packet Radio Service) mobile users are constantly online. This feature brings convenience to the users.

- **Pro-Active Functionality:** M-commerce brings opportunities for the companies like push marketing, where users can opt for ‘Opt-in advertising’ so that they are informed about new products and services in the form of SMS.

## **2.3 HISTORY OF MOBILE BANKING**

One of the most successful cell phone banking initiative was introduced in Philippines the year 2000 (Finscope, 2012). The service was known as G-Cash and allowed consumers to shop at their local stores and make payments to merchants using their phones. Another success storey is that of Kenya, their service being marketed as M-pesa via the local mobile Operator, Safaricom (Finscope, 2012).

In Ethiopia, mobile banking was started by the year 2013 and it is offered by Commercial Bank of Ethiopia.

## **2.4 SERVICES OFFERED BY MOBILE BANKING**

As per Goldstuck (2009) mobile banking service has a capacity to provide the following services;

- Balance enquiry
- Get notified of transactions
- Buy airtime
- Statement/min statement
- Get notified of accounts limit
- Transfer funds between accounts
- Pay accounts
- Buy prepaid electricity
- Make a purchase
- Add beneficiaries

Today most banks in the world offer a basic mobile banking solution for their customers (Mobile Marketing Association, 2009). The most common services available today are:

- Account alert and security alert
- Account balance, update and history
- Branch or ATM location information
- Fund transfer

And other services will likely include in mobile banking service in any kind of cell phone depending on the bank service.

## **2.5 THEORETICAL REVIEW**

In order to evaluate the adoption of technology there is many alternative models such us:

1. Theory of Reasoned Action (TRA)
2. Technology Acceptance Model (TAM)
3. Theory of Planned Behavior (TPB)
4. Innovation Diffusion Model (ID)
5. The Unified Theory of Acceptance and Use of Technology (UTAUT) Model

### **2.5.1 THEORY OF REASONED ACTION (TRA)**

Ajzen and Fishbein developed a versatile behavioral theory and model in 1975 called the Theory of Reasoned Action (TRA). This model forms the backbone of studies associate with attitude-behavior relationships. This has been adapted for use in many fields and is widely used in academia and business today (Magee, 2002).-

In their theoretical model, Fishbein and Ajzen suggested that a person's actual behavior could be determined by considering his or her prior intention along with the beliefs that the person would have for the given behavior (Davis, 1985). They referred to the intention that a person has prior to an actual behavior as the behavioral intention of that person, and defined it as measure of one's intention to perform a behavior.

Fishbein and Ajzen also proposed that behavioral intention could be determined by considering both the attitude that a person has towards the actual behavior, and the subjective norm associated with the behavior in question. They define the attitude towards a given behavior as a person's positive or negative feelings about performing the actual behavior, suggesting that the

attitude of a person towards a behavior (A) can be measured by considering the sum of the product all salient benefits (b<sub>i</sub>) about consequences of performing that behavior, and an evaluation (e<sub>i</sub>) of those consequences,

$$A = \sum b_i e_i.$$

They also defined the subjective norm associated with a behavior as the person’s perception that most people who are important to him or her think he or she should or should not perform the behavior. Fishbein and Ajzen, then suggested that subjective norm (SN) could be determined by considering the sum of the product of a person’s normative beliefs (nb<sub>i</sub>), that is perceived expectations of other individuals or groups, and his or her motivation to comply (mc<sub>i</sub>). the formula they proposed for measuring the subjective norm associated with an actual behavior is

$$SN = \sum nb_i mc_i$$

thus the behavioral intention (BI) of a person to perform a behavior could be calculated using the formula shown bellow, with A as a measure of the attitude towards the behavior and SN as a measure of the subjective norm associated with the behavior considered.

$$BI=A+SN$$

The theory of reasoned action thus, provided a useful model that could explain and predict the actual behavior of an individual.

This theory, as long as the behavior is voluntarily controlled by the individual, can accurately explain the factors influencing technology adoption (Laukkanen & Cruz, 2009). Thus, TRA is a useful model that will be used to investigate factors affecting adoption of mobile banking.

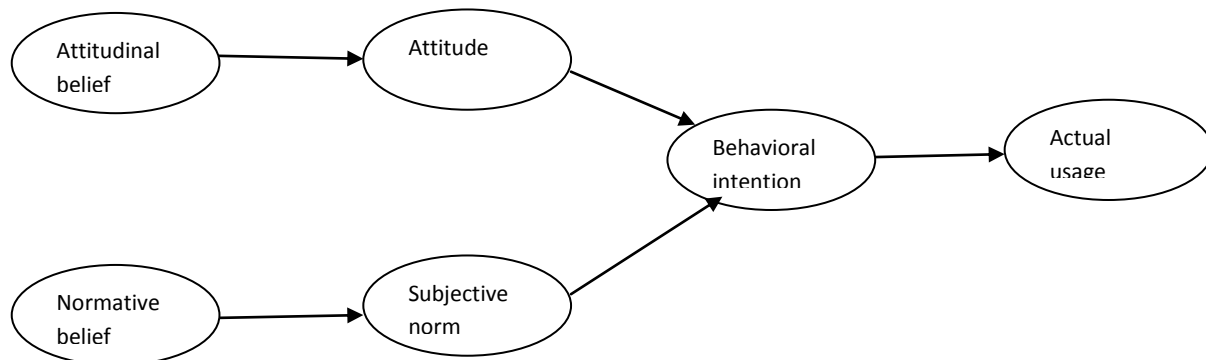


Fig.2. 1 The theory of reasoned action model (Davis, Bagozzi & Warsow, 1989)

### **Limitation of Theory of Reason Action (TRA)**

TRA was criticized for neglecting the importance of social factors that real life could be determinates for individual behavior (Werner, 2004). Social factor mean all the influences of the environment surrounding the individual such as norms which may influence individual behavior (Ajzen, 1991). TRA have some limitations in predicting behaviour (Werner, 2004). The first limitation is that intention determinants are not limited to attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). There may be other factors that influence behavior. Empirical studies showed that only 40% of the variance of behavior could be explained using TRA (Werner, 2004). The second limitation is that there may be a substantial gap of time between assessment of behavior intention and the actual behavior being assessed (Werner, 2004). In that time gap, the intention of an individual might change. The third limitation is that TRA is predictive models that predict an individual's action based on certain criteria. However, individuals do not always behave as predicted by those criteria (Werner, 2004). In terms of IT adoption, TRA have been used to explain the adoption process from individual perspectives. TRA was modified into TAM to predict user acceptance of new technology (Legris, Ingham & Collette, 2003). TAM uses the same principles as TRA in predicting acceptance of IT (behavior) from an individual's intention to accept IT. Furthermore Voluntariness was not included in the original TRA.

### **2.5.2 TECHNOLOGY ACCEPTANCE MODEL (TAM)**

With growing technology needs in the 1970's, and increasing failures of system adoption in organizations, predicting system use became an area of interest for many researchers. However, most of the studies carried out failed to produce reliable measures that could explain system acceptance or rejection (Davis, 1989). In 1985, Fred Davis proposed the technology acceptance model (TAM) in his doctoral thesis at the MIT Sloan School of Management (Davis, 1985). He proposed that system use is a response that can be explained or predetermined by user motivation which, in turn, is directly influenced by an external stimulus consists of the actual systems features and capabilities.

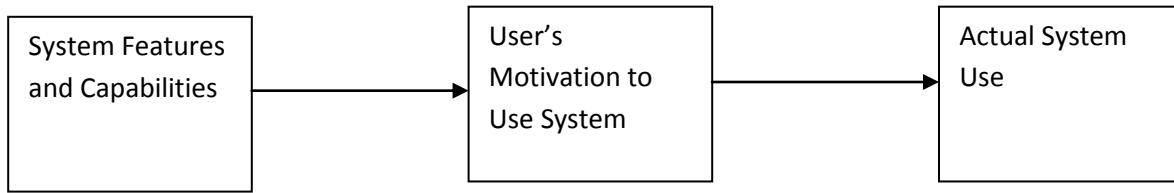


Fig. 2.2 Conceptual model for technology acceptance (Davis, 1985)

By relying on prior work by Fishbein & Ajzen (1975), who formulated the theory of Reasoned Action, and other related research studies, Davis further refined his conceptual model to propose the Technology Acceptance Model.

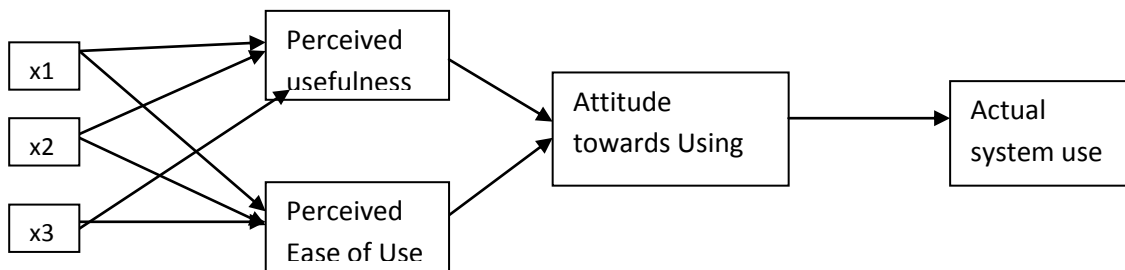


Fig.2.3 Original TAM proposed by Fred Davis (Davis 1986)

Davis (1985) suggested that users’ motivation can be explained by three factors: perceived ease of use, perceived usefulness, and attitude towards using the system. He hypothesized that the attitude of a user toward a system was a major determinant of whether the user will actually use or reject the system. The attitude of the user, in turn, was considered to be influenced by two major beliefs: perceived usefulness and perceived ease of use, with perceived ease of use having a direct influence on perceived usefulness. Finally, both these beliefs were hypothesized to be directly influenced by the system design characteristics, represented by x1, x2, and x3.

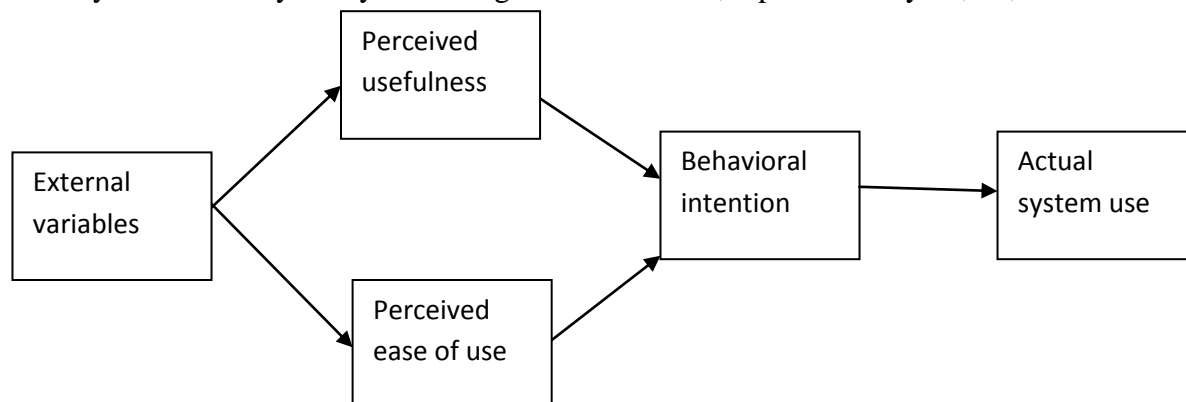


Fig.2.4 Final version of TAM (Venkatesh & Davis 1996)

### **Limitation of TAM**

TAM are model applicable to a variety of technologies, yet they have been criticized for not providing adequate information on individuals' opinions of information systems (Moon & Kim, 2001). TAM make assumptions related to the use of technology that may not apply outside of the workplace (e.g., university); such as, all individuals have access to adequate equipment and an information system and are mandatorily required to use the system. In other words, TAM are designed for measuring usage in the workplace where voluntariness of use may not be under an individual's control or Voluntariness was not explicitly included in the TAM . As to external variables, Davis et al. (1989) observed that external variables enhanced the ability of TAM to predict acceptance of future technology, which means the constructs of TAM need to be extended by incorporating additional factors depending on the target technology, main users, and context (Moon & Kim, 2001). Another commonly reported limitation of TAM is the measurement of usage by relying on respondents' self-reporting usage and assuming that self-reported usage reflects actual usage (Mathieosn, 1991b). Other limitations, such as a variety of types of respondents or the sample choices that made generalization difficult, and, limited guidance about how to influence usage through design and implementation. Furthermore perceived ease of use and perceived usefulness may not fully explain behavioral intentions towards the use of mobile banking, necessitating a search for additional factors that can better predict the acceptance of mobile banking. Because Davis (1989) noted, future technology acceptance research must address how other variables affect usefulness, ease of use and user acceptance.

Finally this research are not going to use the TAM model; because TAM have no moderate factors which was found to be useful and handy in studying the factors affecting the intention toward mobile banking services adoption by customers.

### 2.5.3 THEORY OF PLANNED BEHAVIOR (TPB)

The Theory of Planned Behavior (TPB) is proposed as an extension of the Theory of Reasoned Action, which was related to voluntary behavior, because of the limitations of TRA in dealing with behaviors over which people have incomplete volitional control. The TPB introduced a third independent determinant of intention, perceived behavior control (PBC).

Similar to TRA, the best predictor of behavior in TPB is intention. As for TPB, the intention is determined by three core constructs (Ajzen, 1991):

1. Attitude toward the specific behavior,
2. Subjective norms (SN) and
3. Perceived behavioral control (PCB)

Perceived behavioral control influences intentions (perceived behavioral control refers to people's perceptions of their ability to perform a given behavior). Once again, as a general rule, the more favorable the attitude and subjective norm, and the greater the perceived behavior control, the stronger should be the individual intend to perform the behavior in question. It can be noticed that when given a sufficient degree of actual control over their behavior, people are expected to carry out their intentions when the opportunity arises.

In addition, according to the TPB, human behavior is guided by three kinds of beliefs (Ajzen, 2002):

1. **Behavioral beliefs:** beliefs about the likely outcomes of the behavior and the evaluations of these outcomes. These beliefs produce a favorable or unfavorable attitude toward the behavior.
2. **Normative beliefs:** refer to the perceived behavioral expectations of such important referent individuals or groups as the person's spouse, family, friends, teacher, doctor, supervisor, and co-workers, depending on the population and behavior studied. These beliefs result in perceived social pressure or subjective norm.

3. **Control beliefs:** beliefs about the presence of factors that may facilitate performance of the behavior and the perceived power of these factors. These beliefs indicate whether the person feels in control of the action in question and they give rise to perceived behavioral control.

### **Limitations of TPB model**

The relationship between the belief structures and the determinants of intention are not particularly well understood (Ajzen, 1991).

This is due to two factors. In the TPB, the belief structures are combined into one-dimensional constructs. Such monolithic belief sets may not consistently relate to attitude, subjective norm or perceived behavioral control (Peter & Shirley, 2001).

The belief sets, especially those relating to attitude, are idiosyncratic to the empirical setting, making it difficult to operationalize the TPB (Davis et al. 1989).

### **2.5.4 DIFFUSION OF INNOVATION THEORY (ID)**

This theory was developed by Rogers in 1962. It is one of the oldest social science theories.

As per Rogers 1995 diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. Diffusion is a special type of communication concerned with the spread of messages that are perceived as new ideas.

An innovation, simply put, is “an idea perceived as new by the individual.” An innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption. The characteristics of an innovation, as perceived by the members of a social system, determine its rate of adoption.

The four main elements in the diffusion of new ideas are:

- (1) The innovation
- (2) Communication channels
- (3) Time
- (4) The social system (context)

### 1. **The innovation**

Why do certain innovations spread more quickly than others?

The innovation, to spread and be adopted should show:

The characteristics which determine an innovation's rate of adoption are:

Relative advantage

Compatibility

Complexity

Trial ability

Observability

### 2. **Communication**

Communication is the process by which participants create and share information with one another in order to reach a mutual understanding. A communication channel is the means by which messages get from one individual to another. Mass media channels are more effective in creating knowledge of innovations, where as interpersonal channels are more effective informing and changing attitudes toward a new idea, and thus in influencing the decision to adopt or reject a new idea. Most individuals evaluate an innovation, not on the basis of scientific research by experts, but through the subjective evaluations of near-peers who have adopted the innovation.

### 3. **Time**

The time dimension is involved diffusion in three ways.

First, time is involved in the innovation-decision process. The innovation-decision process is the mental process through which an individual (or other decision-making unit) passes from first knowledge of an innovation to forming an attitude towards the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision. An individual seeks information at various stages in the innovation decision process in order to decrease uncertainty about an innovation's expected consequences.

5- Step Process:

- (1) **Knowledge** – person becomes aware of an innovation and has some idea of how it functions.
- (2) **Persuasion** – person forms a favorable or unfavorable attitude toward the innovation.
- (3) **Decision** – person engages in activities that lead to a choice to adopt or reject the innovation.
- (4) **Implementation**– person puts an innovation into use.
- (5) **Confirmation**–person evaluates the results of an innovation decision already made.

The second way in which time is involved in diffusion is in the innovativeness of an individual or other unit of adoption. Innovativeness is the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than other members of a social system. There are five adopter categories, or classifications of the members of a social system on the basis on their innovativeness:

- (1) Innovators – 2.5 %
- (2) Early adopters– 13.5 %
- (3) Early majority–34%
- (4) Late majority–34%
- (5) Laggards–16 %

The third way in which time is involved in diffusion is in rate of adoption. The rate of adoption is the relative speed with which an innovation is adopted by members of a social system. The rate of adoption is usually measured as the number of members of the system that adopt the innovation in a given time period. As shown previously, an innovation's rate of adoption is influenced by the five perceived attributes of an innovation.

#### 4. **The social system**

The fourth main element in the diffusion of new ideas is the social system. A social system is defined as a set of inter related units that are engaged in joint problem solving to accomplish a

common goal. The members or units of a social system may be individuals, informal groups, organizations, and/or subsystems.

### **Limitations of diffusion of innovation theory**

- It works better with adoption of behaviors rather than cessation or prevention of behaviors.
- It doesn't take in to consideration an individual's resource or social support to adopt the new behavior (innovation).

## **2.5.5 THE UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY (UTAUT) MODEL**

Venkatesh et al. (2003) proposed and tested a unified information technology acceptance and use research model, called the Unified Theory of Acceptance and Use of Technology (UTAUT). The model integrates significant elements across eight prominent user acceptance models and formulates a unique measure with core determinants of user behavioral intention and usage. In this model the original UTAUT aims to explain user intentions to use an IS and subsequent usage behavior. Furthermore UTAUT model suggests that there are a set of factors that influence the intention of the individual user acceptance (Mohammad, 2012). Venkatesh et al. (2003) in their research article theorized that, four constructs play a significant role as direct determinants of user acceptance and usage behavior:

1. Performance expectancy,
2. Effort expectancy,
3. Social influence, and
4. Facilitating conditions.

Gender, age, experience, and voluntariness of use are said to mediate the impact of the four key constructs on usage intention and behavior (Venkatesh et al. 2003).

Research Model proposed by Venkatesh et al, 2003 illustrated below in.

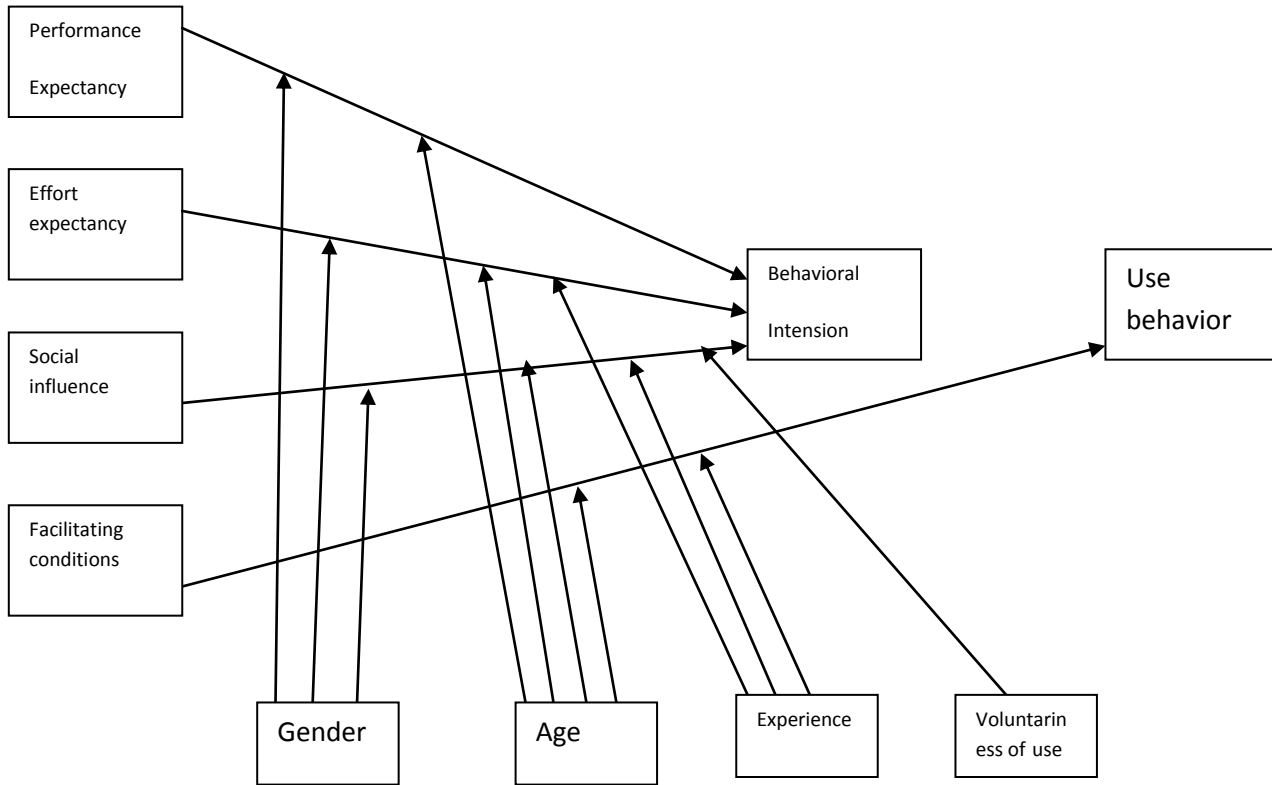


Fig. 2.5 Research Model proposed by Venkatesh et al. 2003

**Limitation of UTAUT model**

UTAUT model is a reincarnation of the theory of reasoned action and theory of planed behavior models (Benasat & barki, 2007).

Others state the UTAUT model, even with forty-one independent variables for predicting intention and at least eight independent variables for predicting behavior, omit important independent variables (Bagozzi, 2007).

The reported inconsistencies in the explanatory powers and the effects of the UTAUT variables may be due to variety in the data analysis techniques employed or to culture and country level

differences. It is therefore always important to re-evaluate even popular models whenever they are applied to a different country/cultural context: both the measurement of the constructs and the relationships among them should be re-evaluated. By evaluating the UTAUT measures and relationships, this study aims to include other variables and exclude some variables to the Ethiopian population contexts.

## **2.6. EMPIRICAL REVIEW**

Building on the above literature review, empirical mobile banking studies were summarized below.

### **2.6.1 PERFORMANCE EXPECTANCY**

Performance expectancy (PE) is defined as the degree to which an individual believes that using the system will help him or her to attain gains in job performance. Venkatesh et al. (2003) PE is the strongest predictor of intention and remains significant at all points of measurement in both voluntary and mandatory settings however from a theoretical point of view, there is reason to expect that the relationship between performance expectancy and intention will be moderated by gender and age. Perceived usefulness, relative advantage, outcome expectation, job fit, and extrinsic motivation are the constructs of performance expectancy (PE) from different models TAM, Innovation Diffusion Theory (IDT), Social Cognitive Theory (SCT), Model of PC Utilization(MPCU), and Motivational Model (MM) respectively (Venkatesh et al. 2003).

Researchers have demonstrated a positive relationship between performance expectancy and behavioral intention (Venkatesh et al. 2003). Hence, adapting performance expectancy to the context of mobile learning suggests that individuals will find mobile learning useful due to convenient access to information without the restriction on physical locations and time.

Kamal (2012) in his study made using UTAUT model the researcher were distributed 350 questionnaires, collected 310 of them and the result showed that performance expectancy were identified as factors influencing intent and behavior of users of e-banking services (mobile banking).

H1: performance expectation has significant Positive effect on the adoption of mobile banking.

## 2.6.2 PERCIEVED RISK

According to Kabir (2013) Perceived risk may be seen from various perspectives such as privacy risk, financial risk, system risk and physical security risk. As defined by Lee et al. (2009) these three risks can be described as follows;

**Privacy risk:** is defined as a potential loss due to fraud or a hacker interfering with the security of a mobile banking user (disclosure of personal and financial information).

**Financial risk** -is defined as the potential for monetary loss.

**System risk**- refers to deficiencies or malfunctions of mobile banking. Lastly, physical security risk refers to any exposure to attacks and threats to the user of mobile banking that may result to physical bodily harm or injury and loss of money.

The study by Brown et al. (2003) main findings tells us risk has negative effect on adoption on mobile banking. Cruz et al. (2010) also confirmed that risk has negative effect on adoption of mobile banking.

H2: Perceived risk has significant negative effect on adoption of mobile banking.

## 2.6.3 SERVICE QUALITY

Service quality refers to reliability, content quality, personalization. Daft and Lengel (1986) suggested that accuracy, reliability, and quality of information exchanged across a medium were critical to the effectiveness. In the context of mobile, the content refers to information, features, or functions that are offered via mobile banking services. Such content should be constructed logically to help user find information and incorporate features such as accuracy, timeliness, relevance, and flexible presentation (Huizingh, 2000). A reliable mobile system should ensure the effectiveness of mobile banking, and therefore service quality is included in the study.

On the study made by Ahmed & Steve (2013) their finding showed that quality of service was also found to be a significant influencing factor on behavioral intention to adopt e-learning

H3: quality of service has a significant positive effect on behavioral intention to adopt mobile banking.

#### **2.6.4 TRUST**

In fact trust is not included in Venkatesh et.al. (2003) model but Trust is a variable that has attracted attention of many scholars playing mysterious role in the adoption of mobile payments (Misra & Wickamasinghe, 2004). Trust is a fundamental component for establishing and maintaining successful relationships between customers and businesses (Garbarino & Johnson, 1999). It can be understood as “the belief that vendors will perform some activity in accordance with customer’s expectations” (Gefen & Straub, 1997). Mobile payment system can be formed by maintaining anonymity, security and most importantly reliability of the service model (Egger, 2001). According to Gefen et al. (2003) it is trust variable that plays crucial role in facilitating adoption of e-commerce adoption. Gefen was the scholar used trust widely to explore behavioral intention or adoption of technologies. When it comes to mobile payments, Pousttchi (2003) arrives at a conclusion after his survey revealed that over 96% of the respondents he surveyed wanted confidentiality of data they exchange with the service provider otherwise trust was very difficult to develop among people.

Study made in India regardless of adoption behavior of mobile banking services by Indian consumers by Nitin et al. (2014) reviewing the literature, found that Trust, was found to be important factors to influence the consumer intention to adopt mobile banking.

H4: Trust has a significant positive effect on behavioral intention to adopt mobile banking.

#### **2.6.5 DEMOGRAPHIC FACTOR**

##### **A. Age**

Numerous studies have discussed the effects of demographics on new technology adoption. However, compared to traditional innovation diffusion studies Rogers (2003) that reveal earlier adopters of technological innovations as typically younger in age, having higher incomes, better educated, and having higher social status and occupation, research findings in the context of electronic banking are not consistent. Age is theorized to play a moderating role in the UTAUT

model. Age effects, it is interesting to note that gender differences can be misleading without reference to age (Levy, 1988). Venketash et al. (2003) proposed that the influence of performance expectancy will be moderated by both age and gender.

Of the mobile banking adoption literature, some research indicated typical users of electronic banking were relatively young (Joshua & Koshy, 2011) or discovered that the elderly had more resistances to change and negative attitude toward using mobile banking services (Laukkanen et al. 2007).

### **B. Gender**

Previous research showed that gender differences have shown to exist in technology acceptance (Venkatesh & Davis, 2000; Wolin & Korganmkar, 2003; Gefen & Straudb, 1997). Wolin and Korganmkar (2003) found that males and females differ significantly in several dimensions with males exhibiting more positive beliefs and attitudes about E-commerce than females. In the UTAUT model, Venketash et al. (2003) proposed that gender would moderate the relationship between performance expectancy, effort expectancy, and social influence on intention to utilize the technology. Venkatesh et al. (2003) reported that men are more likely to have higher performance expectancies than females. Additionally, many empirical studies have revealed the statistical difference between female and male respondents in the mobile service/banking setting.

Puschel et al. (2010) on his study, he was collected 666 respondents in Brazil and discovered that mobile banking users were predominantly males.

For these different findings in different country and sample sizes what affect mobile banking adoption is questionable and need research in Ethiopian context.

### **C. Education level**

Several studies showed that prior similar experience, such as computer or internet use, strongly influence intention to use and usage behavior of a specific system Venkatesh et al. (2003), suggested that an increase in experience would decrease the influence of effort expectancy and social influence on behavior intention to use.

Kim & Malhotra (2005) confirm Venkatesh et al. (2003) by showing that when user experience increase, effort expectance and social influence decrease. People who have more experience using similar system are more relying on instrumental basis rather than social basis because experience users of mobile devices or wireless internet are more skillful and easy to use M-commerce (Wang & Yang's, 2005).

## **2.7. THE PROPOSED MODEL**

The goal of the present study is not to replicate the UTAUT study as in Venkatesh et al. Instead, this paper aims to ascertain what factors considerably influence people to adopt mobile banking. Therefore, additional constructs selected from mobile banking literature are taken into the research structure, which are addressed as follows. Based on revising different scholarly literature review the following proposed model is adopted. The below Figure showed the proposed model in which examine the relationship between dependent and independent variable which is adopted from Sungwoo, 2010 and a minor modification to fit with objective of the study. The study also aims to now the effect of gender, age, and educational qualification indirectly to behavioral intention to adopt mobile banking.

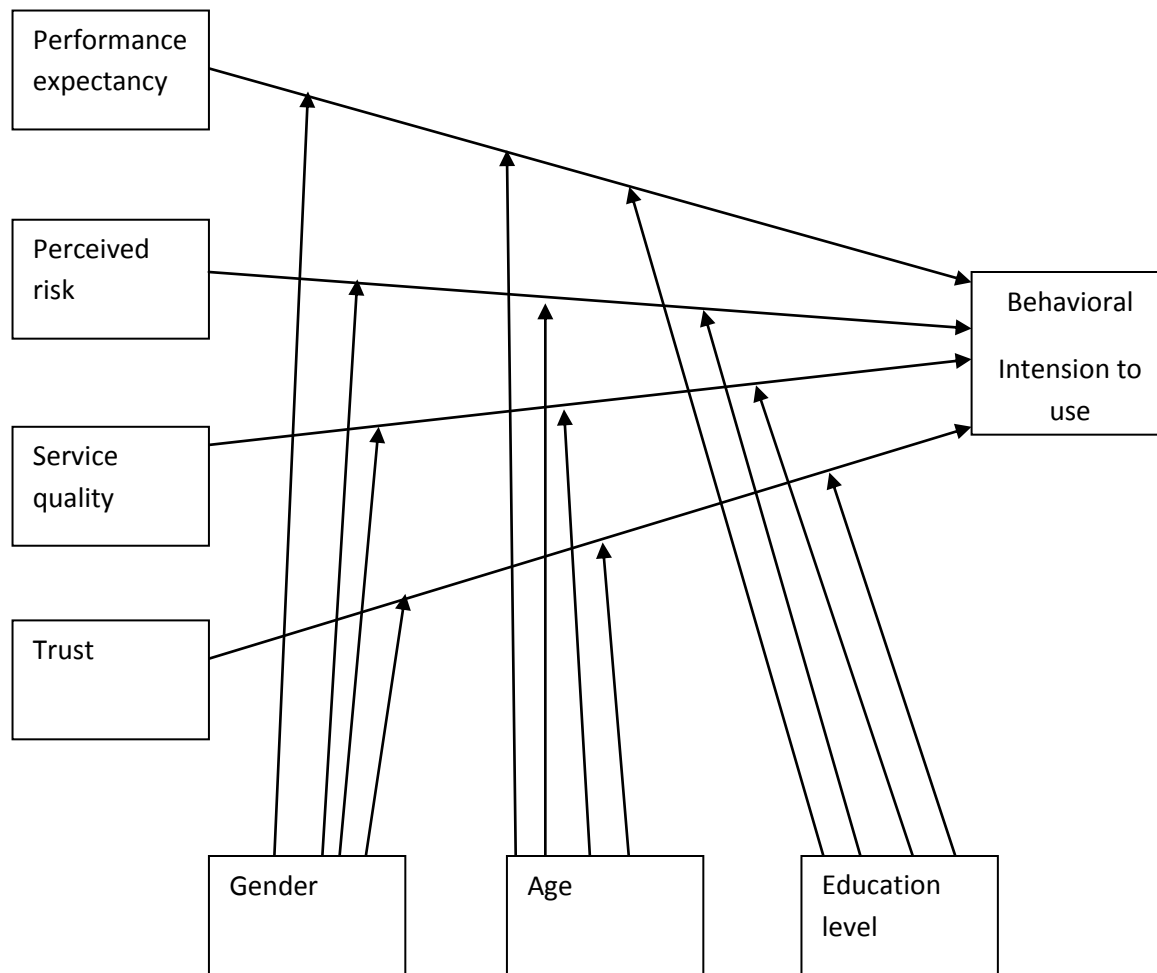


Fig. 2.6 Proposed models (based on UTAUT model)

## CHAPTER THREE

# RESEARCH METHODOLOGY

### 3.1 RESEARCH DESIGN

The goals of scientific research, in broad terms, are to answer questions and acquire new knowledge (Geoffrey et al. 2005). In this study the researcher also tries to identify factors which affect the adoption of mobile banking through answering the research questions raised in chapter one. The study was descriptive and explanatory by its research design.

**Descriptive:** description refers to the process of defining, classifying, or categorizing phenomena of interest. Descriptive research is useful because it can provide important information regarding the average member of a group (Geoffrey et al. 2005). Specifically, by gathering data on a large enough group of people, a researcher can describe the average member, or the average performance of a member, of the particular group being studied. Descriptive research design is selected because the descriptive method is particularly appropriate when the research objective includes the determination of the degree to which certain variables are related to actual phenomena (Hair & Ortinau 2000), as such information can provide decision makers with evidence that can lead to a course of action.

**Explanatory:** Being able to describe something and having the ability to predict one thing based on knowledge of another are important goals of scientific research, but they do not provide researchers with a true understanding of a phenomenon (Geoffrey et al. 2005). One could argue that true understanding of a phenomenon is achieved only when researchers successfully identify the cause or causes of the phenomenon. One of the common problems is that descriptive designs do not provide direct cause and effect relationships (Paurav, 2008). On the other hand, managers continually make decisions based on assumed relationships. As these assumptions are based on

intuitions, they are hardly justifiable and validity of such causation should be examined with causal decisions. Thus, causal design provides answers to such questions by explaining which variables are the causes (independent variable) and which are the effect (dependent variable) therefore, the purpose of this research is mainly descriptive and explanatory. It is descriptive because descriptive data were collected through standardized questionnaire from customers and also explanatory since the researcher tries to explain the relationship between the factors which have ability to affect customer's adoption of mobile banking and how these factors affect mobile banking adoption. The emphasis here is on studying a situation or a problem in order to explain the relationship between variables. The objective with this kind of research is to analyze cause and effect relationship, explaining what cause produces the effect.

Also it is a quantitative research to provide numerical measurement and analysis of the intention dynamic. Survey questionnaires used for standardization purposes to allow for aggregation of the results. The quantitative component was derived from the survey which was collected from the customers of commercial bank of Ethiopia in eight selected branches from east Addis district.

The investigation aim to identify whether the independent variables are statistically significant factors in the adoption of mobile banking service.

### **3.2. RESEARCH INSTRUMENT**

Structured questionnaire was used, to obtain data from the respondents. The questionnaires consisted of closed-ended questions. To ensure success, the questionnaires were short and simple, with questions moving from easy to more difficult ones. The questions were capture data in line with the study objectives. A five point likert scale was used, where 1=strongly Disagree, 2=Disagree, 3 = Neutral 4 = Agree, and 5=strongly Agree was used to measure the respondents' view concerning statements on Performance expectancy, Perceived risk, service quality, and Trust.

### **3.3 SAMPLING DESIGN**

#### **3.3.1 TARGET POPULATION**

A precise definition of the target population is essential and usually done in terms of elements, sampling units, and sampling frame (Paurav, 2008). An element is defined as a person or object from which data is sought and about which inferences are to be made. The target population of this study included Commercial Bank of Ethiopia customers who have either saving or current account in one of the CBE branches and also who are adopted mobile banking.

CBE have spent huge amounts in establishing mobile banking systems, but the adoption and usage rate of mobile banking is still lower than expected and remains insignificant compared to the entire banking transactions. As per CBE's 2015's performance report the bank has managed to recruit 303,288 customers into using this service out of over 9.5 million accounts.

Out of the 303,288 mobile banking service adopters around 141,536 customers were found in the research target area Addis Ababa. Based on the performance report active mobile banking users are 34,230. Furthermore According to the bank active mobile banking users are those customers who are at least use mobile banking service for single time or several times. In contrary registered customers are those customers who did not use mobile banking at once for any type of the service that mobile banking is giving. Hence the respondents are customers of CBE who have mobile phones and registered to use mobile banking but yet to adopt mobile banking service.

In general the target population for this study was the one who adopted mobile banking in the researchers target area Addis Ababa which is around 141,536 account holders.

#### **3.3.2 SAMPLING PROCEDURE**

##### **3.3.2.1 SAMPLING SIZE**

The target population of this study is the one who adopted mobile banking in Addis Ababa. The total size of the population is around 141,536 (one hundred forty one thousand five hundred thirty six). Studying this match population in general is difficult because of time and capacity

limitations so, the researcher decided to take a sample from the total population. A total sample size of 400 was drawn to collect data from respondents by using the below formula.

$$S = N/N(e)^2$$

$$S=141536/141536(0.05)^2$$

$$S=400$$

N = Number of people in the population;

e = Accuracy (or precision) desired, expressed as a decimal (0.05 for 5% is used in this formula).

S= sample size.

### **3.3.2.2 SAMPLING TECHNIQUE**

In order to select samples in this study the researcher will use multi stage sampling. Primarily in order to address the targeted population the student researcher had preferred to select the district to which the survey was conducted. CBE has four districts in the researcher target area Addis Ababa, the mobile banking users on those districts doesn't have any difference in the adopting mobile banking so, the researcher where used stratified sampling and preferred to select East Addis district as a sample.

Under east Addis district there are 69 branches, Out of 69 branches found in the district, eight branches were selected, and those branches are Namely Andinet, Bole, Kazanchise, Megenagna, Meskel square, Urael, Ethio-China and Terminal by using lottery method which is one way of simple random sampling. Finally the respondents were selected using convenient sampling method.

## **3.4 DATA COLLECTION**

The questionnaires were distributed to the selected eight branches. The branches are selected by using lottery method (simple random sampling). The data collection was base on the questionnaires distributed to bank customers in time between 21apr-02may, 2016. The data was

collected during working hours (5 days per week) over two weeks. The respondents selected by using convenient sampling in the selected bank branches halls by asking whether they use mobile banking or not, and willing to participate in the research to complete the questionnaires, if the respondents answered that they did not have registered for using mobile banking and not willing to participate on the research, they were eliminated. A total of 416 questionnaires were distributed and 400 were collected.

More specifically the study was used primary data sources to collect the necessary information.

The primary data was be collected by using survey questionnaire that is closed ended. A survey instrument in the form of questionnaire was developed through data collected from previous studies on adoption of technologies. In order to check the reliability of the questions of the questionnaires pilot test was conducted by distributing 20 questionnaires and conducting reliability test and it shows the reliability of the questionnaire.

### Reliability of the pilot test

Table 3.1 reliability test

Item	Cronbach's alpha
Performance expectancy	.742
Perceived risk	.907
Service quality	.633
trust	.811
Behavioral intension	.914
Overall reliability	0.801

Source: SPSS data, 2016

### 3.5. METHODS OF DATA ANALYSIS

Before doing the data analysis the collected data was checked whether it fulfilled the requirement using the reliability and normality test using cronbach's alpha and skewness and kurtosis test.

After doing that frequency distribution of all variables were done correlation test was done to show the relationship directions among the independent factors and also independent factors with the dependent one and also used to address the hypothesis of the study.

The regression analysis was conducted to measure the significance of the independent factors to influence the dependent once and also to rank the factors.

Finally t-test and ANOVA test will be computed, the reason for doing an ANOVA is to see if there is any difference between groups on some variable. The values for correlations and regression, t-test and ANOVA test were provided by using SPSS version 20.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### Introduction

In the previous chapters what we have proposed was actually done in this chapter. In general in this chapter the student researcher tries to answer the research questions in order to achieve its objective.

#### Sample Size and Respondent Profile

As mentioned in chapter three the researcher was planned to distribute 400 questionnaires but distributed 416 questionnaires in order to get 400 correctly filled. Out of the 416 respondents, 16 of them either failed to complete the entire survey or not return the questionnaires. In the end, a total of 400 respondents answered the entire survey. The overall respondent rate for survey was approximately 96%. All of survey respondent are registered mobile banking users.

#### 4.1 Reliability Test

The level of reliability of the instrument that is the consistency of the variables is checked with the Cronbach's alpha statistics. Cronbach's alpha is an index of reliability associated with the variation accounted for by the true score of the "underlying construct" (Nunnally, 1978). Cronbach's Alpha's can only be measured for variables which have more than one measurement question. (Nunnally, 1978) has stated that 0.5 is a sufficient value, while 0.7 is a more reasonable Cronbach's alpha.

**Table 4.1. Reliability test**

<b>Construct</b>	<b>Number of item</b>	<b>Cronbach's alpha</b>	<b>Internal consistency</b>
Performance Expectancy	7	0.884	Good
Service Quality	5	0.803	Good
Perceived Risk	5	0.852	Good
Trust	4	0.849	Good
Behavioral Intension	4	0.916	Excellent
Overall Reliability	28	0.802	Good

Source: SPSS data, 2016

Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The closer alpha coefficient is to 1.0, the greater the internal consistency and the reverse is true. In this research the rule of thumb developed by (George and Mallery, 2003) was used where an alpha value  $\geq 0.90$  is excellent,  $\geq 0.80$  is good,  $\geq 0.70$  is acceptable,  $\geq 0.60$  is questionable,  $\geq 0.50$  is poor,  $\leq 0.50$  is unacceptable. Since the value of all the constructs were above 0.80, we can conclude that the data collection instrument is consistent and dependable.

#### 4.2 Skewness and kurtosis test

This test was conducted to measure the degree of asymmetry or departure from symmetry of a distribution and to measure peakedness.

**Table 4.2. Skewness and kurtosis test**

		PERFEXP	PERCRISK	TRUST	SERVQUAL	BIHAVINT
N	Valid	400	400	400	400	400
	Missing	0	0	0	0	0
Skewness		-1.245	.220	-.511	-.269	-1.059
Std. Error of Skewness		.122	.122	.122	.122	.122
Kurtosis		2.062	-.594	-.285	-.340	.533
Std. Error of Kurtosis		.243	.243	.243	.243	.243

Source: SPSS data, 2016

The result showed that all variables are in the acceptable range means between -2 and +2 except for performance expectancy. Performance expectancy was acceptable for skewness test but not for kurtosis test.

#### 4.3 MultiCollinearity Testing

A test of Multicollinearity was conducted to determine the correlation of the independent variables. Multicollinearity refers to the extent to which an independent variable can be explained by other independent variables in the analysis and if too high this can have harmful effect on regression.

Two major approaches were utilized in order to determine the presence of multi co-linearity among independent variables in this study. These methodologies involved calculation of both a

Tolerance test and Variance Inflation Factor –VIF (inverse of the tolerance) (Kleinbaum et.al, 1988) cited by (T.Velnampy&S.Sivesan2012)and Tolerance level is < or equal to 1 calculated as  $(1-R^2)$  where R is correlation values; and all VIF is 1/Tolerance values are well below 10 is acceptable.

**Table 4.3 MultiCollinearity Test**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
								(Constant)
1	PERFEXP	.543	.059	.435	9.195	.000	.619	1.614
	PERCRISK	-.017	.038	-.018	-.440	.661	.844	1.185
	TRUST	.305	.051	.304	6.015	.000	.543	1.843
	SERVQUAL	.077	.091	.031	.840	.401	.989	1.012

Source: SPSS data, 2016

As can be seen from this data, all of the Tolerance level is < or equal to 1; and all VIF values are well below 10. Thus the measures selected for assessing independent variables in this study, so it’s acceptable.

**4.4 Descriptive statistics for all surveyed item**

**Respondents Profile**

**Table4.4 Frequency of Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-30	275	68.8	68.8
	31-45	89	22.3	91.0
	46-60	20	5.0	96.0
	61 and above	16	4.0	100.0
	Total	400	100.0	100.0

Source: SPSS data, 2016

The average respondents were between the ages of 18 to 30, which contributes about 68.8 % of the respondents, 31 years old to 45 years old were contributes about 22.3%. 5% of the respondent was from 46 to 60 years old. The rest which is about 4% were 61 years old and

above. The above data showed that youngsters are eager to accept new technologies than the aged once.

**Table 4.5 Frequency of Gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	259	64.8	64.8	64.8
Valid female	141	35.3	35.3	100.0
Total	400	100.0	100.0	

Source: SPSS data, 2016

In terms of gender most of the respondents were male (64.8%) and the rest 35.3% were female. This shows that the survey sampling was biased or there is high adoption rate of mobile banking by males than females.

**Table 4.6 Frequency of Education Qualification**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Primary School Completed	49	12.3	12.3	12.3
Valid High School Completed	70	17.5	17.5	29.8
Valid Diploma and Degree	231	57.8	57.8	87.5
Valid MA and above	50	12.5	12.5	100.0
Total	400	100.0	100.0	

Source: SPSS data, 2016

Furthermore respondent were asked about their educational background and about 57.8% of the respondent are diploma or degree holder. About 17.5 % of respondent were high school completed, 12.5% and 12.3% were MA and above and primary school completed respectively. It shows that in order to accept new technologies the educated once are better than non collage completed so that's better if CBE's more focused on the educated once

## A. Performance Expectancy

To measure this variable the student researcher forward seven related questions adopted from early studies and analyzed and presented in the following table by taking the necessary output data from SPSS.

**Table 4.7 Frequency distribution of Performance Expectancy**

Item	Respondent			
	Frequency	Percent	Mean	Std. deviation
<b>PE01. I found mobile banking service useful.</b>				
Strongly disagree	9	2.3	4.15	0.926
Disagree	15	3.8		
Neutral	47	11.8		
Agree	166	41.5		
Strongly agree	163	40.8		
Total	400	100.0		
<b>PE02. Mobile banking suits my life style.</b>				
Strongly disagree	6	1.5	3.81	0.924
Disagree	33	8.3		
Neutral	82	20.5		
Agree	191	47.8		
Strongly agree	88	22.0		
Total	400	100.0		
<b>PE03. Using mobile banking services enables me to accomplish banking tasks more quickly.</b>				
Strongly disagree	18	4.5	3.90	1.033
Disagree	24	6.0		
Neutral	55	13.8		
Agree	186	46.5		
Strongly agree	117	29.3		
Total	400	100.0		
<b>PE04. Using mobile banking services increase my productivity in banking tasks.</b>				
Strongly disagree	15	3.8	3.79	0.997
Disagree	27	6.8		
Neutral	79	19.8		
Agree	186	46.5		

Strongly agree	93	23.3		
Total	400	100.0		
<b>PE05. Using mobile banking services enhance my bank transactions quality.</b>				
Strongly disagree	18	4.5	3.66	1.025
Disagree	37	9.3		
Neutral	81	20.3		
Agree	190	47.5		
Strongly agree	74	18.5		
Total	400	100.0		
<b>PE06. Using mobile banking service increase my efficiency in conducting my banking task.</b>				
Strongly disagree	15	3.8	3.54	0.988
Disagree	41	10.3		
Neutral	115	28.8		
Agree	170	42.5		
Strongly agree	59	14.8		
Total	400	100.0		
<b>PE07. Mobile banking services improve my payment convenience</b>				
Strongly disagree	7	1.8	3.89	0.914
Disagree	21	5.3		
Neutral	86	21.5		
Agree	181	45.3		
Strongly agree	105	26.3		
Total	400	100.0		

Source: SPSS data, 2016

To measure the attitude of respondents with regard to performance expectancy, the respondents were asked seven questions using five point Likert scale. For the first question (**I found mobile banking service useful.**) 166 (41.5%) of them agree with the statement and of the respondent, 163 (40.8%), are strongly agree with the statement. The rest 47 (11.8%), 15 (3.8%) and 9(2.3%) of respondents respectively says neutral, disagree and strongly disagree. The other question that was asked for the respondent to measure performance expectancy of the respondents was whether the Mobile banking service suits their life style. Consequently, similar to the above result most respondent, 191 (47.8%) and 88 (22%) of the total agree and strongly agree with the

statement respectively, believe that mobile banking service suits their life style. Likewise 82 or 20.5% of them were neutral about the statement and the rest 33 (8.3%) and 6 (1.5%) are disagree and strongly disagree with the statement. The third question was about whether mobile banking services enables them to accomplish banking tasks more quickly or not, 186 (46.5%) were agree, 117(29.3%) were strongly agree, 55 (13.8%) were neutral, the rest 24 (6%) and 18 (4.5%) were disagree and strongly disagree respectively.

The fourth question is about the impact of mobile banking on productivity, 186 (46.5%) were agreed with the statement, 93 (23.3%) were strongly agree, the rest 79 (19.8%), 27 (6.8%) and 15 (3.8%) were neutral, disagree and strongly disagree. The fifth question is about the quality of mobile banking transaction, 190 (47.5%) were agreed with the statement, 81 (20.3%) were neutral, the rest 74 (18.5%), 37 (9.3%) and 18 (4.5%) were strongly agree, disagree and strongly disagree. The sixth question regarding performance expectancy is about whether mobile banking service increase my efficiency in conducting my banking task or not. 170(42.5%) of them agree with the statement and of the respondent, 115 (28.8%), are neutral with the statement. The rest 59 (14.8%), 41 (10.3%) and 15 (3.8%) of respondents respectively says strongly agree, disagree and strongly disagree.

The last one is about the improvement of payment system because of using mobile banking, 181(45.3%) of the respondents agree and 105(26.3%) were strongly agree, the rest 86(21.5%), 21(5.3%) and 7(1.8%) were neutral, disagree and strongly disagree respectively.

When we compute mean for the questions under the category performance expectancy, the highest was 4.15 and the lowest 3.54.

## **B. Service Quality**

To measure this variable the student researcher forward five related questions adopted from early studies and analyzed and presented in the following table by taking the necessary output data from SPSS.

**Table 4.8 Frequency distributions of Service Quality**

Item	Respondent			
	Frequency	Percent	Mean	Std. Deviation
<b>SQ01. I believe that the banking transactions performed on a mobile phone will work satisfactorily.</b>				
Strongly disagree	41	10.3	3.30	1.151
Disagree	63	15.8		
Neutral	66	16.5		
Agree	194	48.5		
Strongly agree	36	9.0		
Total	400	100.0		
<b>SQ02. My mobile banking service has visually appealing features, such as graphic, appropriate colors and fonts, and good page layout in my mobile banking menu.</b>				
Strongly disagree	11	2.8	3.43	0.925
Disagree	46	11.5		
Neutral	148	37.0		
Agree	152	38.0		
Strongly agree	43	10.8		
Total	400	100.0		
<b>SQ03. My mobile banking service is always available without network and system frailer.</b>				
Strongly disagree	90	22.5	2.81	1.243
Disagree	62	15.5		
Neutral	107	26.8		
Agree	118	29.5		
Strongly agree	23	5.8		
Total	400	100.0		
<b>SQ04. I believe mobile banking service offered by CBE is reliable</b>				

Strongly disagree	43	10.8	3.34	1.121
Disagree	40	10.0		
Neutral	92	23.0		
Agree	188	47.0		
Strongly agree	37	9.3		
Total	400	100.0		
<b>SQ05. CBE's mobile banking service is customized</b>			3.60	0.921
Strongly disagree	15	3.8		
Disagree	26	6.5		
Neutral	115	28.8		
Agree	194	48.5		
Strongly agree	50	12.5		
Total	400	100.0		

Source: SPSS data, 2016

To measure the attitude of respondents with regard to service quality, the respondents asked five questions using five point Likert scale. For the first question is regarding whether mobile banking service is satisfactory or not, 194 (48.8%) of them agree with the statement and of the respondent, 66 (16.5%), are neutral with the statement. The rest 63 (15.8%), 41 (10.3%) and 36 (9%) of respondents respectively says disagree and strongly disagree and strongly agree. The other question that was asked for the respondent to measure service quality of the respondents regards the mobile banking services visually appealing features, such as graphic, appropriate colors and fonts, and good page layout. 152 (38%) and 148 (37%) of the total agree and neutral with the statement respectively, Likewise 46 or 11.5% of them were disagree with the statement and the rest 43 (10.8%) and 11 (2.8%) are strongly agree and strongly disagree with the statement. The third question was about the availability of the service without failure, 118 (29.8%) were agree, 107(26.8%) were neutral, 90 (22.5%) were strongly disagree, the rest 62 (15.5%) and 23 (5.8%) were disagree and strongly agree respectively.

The fourth question is about the reliability of mobile banking, 188 (47%) were agreed with the statement, 92 (23%) were neutral, the rest 43 (10.8%), 40 (10%) and 37 (9.3%) were strongly disagree, disagree and strongly agree. The fifth question is about the customizability of mobile

banking, 194 (48.5%) were agreed with the statement, 115 (28.8%) were neutral, the rest 50 (12.5%), 26 (6.5%) and 15 (3.8%) where strongly agree, disagree and strongly disagree. When we compute mean for the questions under the category service quality, the highest was 3.60 and the lowest 2.81.

### C. Perceived Risk

To measure this variable the student researcher forward four related questions adopted from early studies and analyzed and presented in the following table by taking the necessary output data from SPSS.

**Table 4.9 Frequency distribution of Perceived Risk**

Item	Respondent			
	Frequency	Percent	Mean	Std. Deviation
<b>PR01. I think using mobile banking services for monetary transactions have potential risk.</b>				
Strongly disagree	46	11.5	3.13	1.233
Disagree	86	21.5		
Neutral	96	24.0		
Agree	115	28.8		
Strongly agree	57	14.3		
Total	400	100.0		
<b>PR02. I think that privacy is not guaranteed when using mobile banking service.</b>				
Strongly disagree	77	19.3	2.67	1.221
Disagree	121	30.3		
Neutral	92	23.0		
Agree	77	19.3		
Strongly agree	33	8.3		
Total	400	100.0		
<b>PR03. I believe it can rather easily happen that money can be stolen if mobile banking services are used.</b>				
Strongly disagree	64	16.0	2.73	1.183
Disagree	126	31.5		
Neutral	95	23.8		

Agree	83	20.8		
Strongly agree	32	8.0		
Total	400	100.0		
<b>PR04. Conducting banking transactions on mobile phones is risky because one can easily lose or misplace the mobile phone.</b>			2.75	1.358
Strongly disagree	91	22.8		
Disagree	110	27.5		
Neutral	56	14.0		
Agree	95	23.8		
Strongly agree	48	12.0		
Total	400	100.0		

Source: SPSS data, 2016

To measure the attitude of respondents with regard to perceived risk, the respondents asked four questions using five point Likert scale. For the first question is regarding whether mobile banking service have risk not, 115 (28.8%) of them agree with the statement and of the respondent, 96 (24%), are neutral with the statement. The rest 86 (21.5%), 57 (14.3%) and 46 (11.5%) of respondents respectively says disagree and strongly agree and strongly disagree. The other question that was about the service was granted or not. 121 (30.3%) and 92 (23%) of the total disagree and neutral with the statement respectively, Likewise 77 or 19.3% of them were strongly disagree and agree with the statement and the rest 33 (303%) strongly agree with the statement. The third question was about whether money stolen easily from mobile banking or not, 126 (31.5%) were disagree, 95 (23.8%) were neutral, 83 (20.8%) were agree, the rest 64 (16%) and 32 (8%) were strongly disagree and strongly agree respectively.

The fourth question is about conducting bank transaction using mobile phone is risky, 110 (27.5%) were disagreed with the statement, 95 (23.8%) were agree, the rest 91 (22.8%), 56 (14%) and 48 (12%) were strongly disagree, neutral and strongly agree. When we compute mean for the questions under the category perceived risk, the highest was 3.13 and the lowest 2.67.

**D. TRUST**

To measure this variable the student researcher forward four related questions adopted from early studies and analyzed and presented in the following table by taking the necessary output data from SPSS.

Table 4.10 Frequency distributions of Trust

Item	Respondent			
	Frequency	Percent	Mean	Std. Deviation
<b>T01. Using mobile banking, i believe my transactions are secured.</b>				
Strongly disagree	12	3.0	3.53	1.071
Disagree	72	18.0		
Neutral	80	20.0		
Agree	165	41.3		
Strongly agree	71	17.8		
Total	400	100.0		
<b>T02. Using mobile banking, I believe my privacy is secured.</b>				
Strongly disagree	20	5.0	3.52	1.097
Disagree	56	14.0		
Neutral	93	23.3		
Agree	157	39.3		
Strongly agree	74	18.5		
Total	400	100.0		
<b>T03. Using mobile banking, i believe my information is kept confidential.</b>			3.41	1.194
Strongly disagree	32	8.0	3.41	1.194
Disagree	65	16.3		
Neutral	84	21.0		
Agree	144	36.0		
Strongly agree	75	18.8		
Total	400	100.0		
<b>T04. Mobile banking makes me more comfortable to communicate with the bank.</b>				
Strongly disagree	25	6.3	3.77	1.089
Disagree	20	5.0		
Neutral	84	21.0		
Agree	165	41.3		
Strongly agree	106	26.5		
Total	400	100.0		

Source: SPSS data, 2016

To measure the attitude of respondents with regard to trust, the respondents asked four questions using five point Likert scale. For the first question is the security of mobile banking, 165 (41.3%) of them agree with the statement and of the respondent, 80(20%), are neutral with the statement. The rest 72 (18%), 71 (17.8%) and 12 (3%) of respondents respectively says disagree and strongly agree and strongly disagree. The other question that was asked for the respondent is the security of privacy using mobile banking. 157 (39.3%) and 93 (23.3%) of the total agree and neutral with the statement respectively, Likewise 74 or 18.5% of them were strongly agree with the statement and the rest 56 (14%) and 20 (5%) are disagree and strongly disagree with the statement. The third question was about the confidentiality of information, 144 (36%) were agree, 84 (21%) were neutral, 75 (18.8%) were strongly agree, the rest 65 (16.3%) and 32 (8%) were disagree and strongly disagree respectively.

The fourth question is about the conformability of mobile banking, 165 (41.3%) were agreed with the statement, 106 (26.3%) were strongly agree, the rest 84 (21%), 25 (6.3%) and 20 (5%) were neutral, strongly disagree, disagree. When we compute mean for the questions under the category trust the highest was 3.77 and the lowest 3.41.

### **E. Behavioral Intension**

To measure this variable the student researcher forward four related questions adopted from early studies and analyzed and presented in the following table by taking the necessary output data from SPSS.

**Table 4.11. Frequency distribution of Behavioral Intension**

Item	Respondent			
	Frequency	Percent	Mean	Std. Deviation
<b>BI01. I will continue to use mobile banking service in the future.</b>				
Strongly disagree	16	4.0	4.11	1.058
Disagree	21	5.3		
Neutral	44	11.0		
Agree	139	34.8		
Strongly agree	180	45.0		
Total	400	100		
<b>BI02. I will use mobile banking service for various types of banking transactions.</b>				
Strongly disagree	8	2.0	3.88	1.078
Disagree	48	12.0		
Neutral	65	16.3		
Agree	139	34.8		
Strongly agree	140	34.9		
Total	400	100		
<b>BI03. I believe it is worthwhile for me to adopt mobile banking.</b>				
Strongly disagree	12	3.0	4.01	0.978
Disagree	16	4.0		
Neutral	69	17.3		
Agree	162	40.5		
Strongly agree	141	35.2		
Total	400	100		
<b>BI04. I will advise others to adopt mobile banking.</b>				
Strongly disagree	16	4.0	4.10	1.034
Disagree	9	2.3		
Neutral	72	18.0		
Agree	125	31.3		
Strongly agree	178	44.4		
Total	400	100		

Source: SPSS data, 2016

To measure the attitude of respondents with regard to behavioral intention to adopt mobile banking, the respondents were asked four questions using five point Likert scale. For the first question is whether they keep using mobile banking, 180 (45%) of them strongly agree with the statement and of the respondent, 139 (34.8%), are agreed with the statement. The rest 44 (11%), 21 (5.3%) and 16 (4%) of respondents respectively become neutral, disagreed and strongly disagreed. The other question that was asked for the respondent is they use mobile banking for various transactions. 140 (34.9%) and 139 (34.8%) of the total strongly agree and agree with the statement respectively, 65 or 16.3% of them were neutral with the statement and the rest 48 (12%) and 8 (2%) are disagree and strongly disagree with the statement. The third question was about obile banking is worthy, 162 (40.5%) were agree, 141 (35.2%) were strongly agreed, 69 (17.3%) were neutral, the rest 16 (4%) and 12 (3%) were disagree and strongly disagree respectively. The fourth question is about if they advise mobile banking for others, 178 (44.8%) were strongly agreed with the statement, 125 (31.3%) were agree, the rest 72 (18%), 16(4) and 9 (2.3%) were neutral, strongly disagree, disagree respectively. When we compute mean for the questions under the category behavioral intension the highest was 4.11 and the lowest 3.88.

#### **4.1.5 Exploring the Hypothesis**

Since the aim of the research was to describe the behavioral intention of customers toward using mobile banking as it is and make statistical analysis to determine if there is significant relationship between the constructs this study used descriptive method. Regarding the statistical analysis the student researcher employed both correlation and regression analysis to determine whether there is statistically significant relationship between the independent and dependent variables. In the cases of performance expectancy, service quality, perceived risk and trust, the research findings supported the literature by showing that all these factors are likely to influence the intention of customers to adopt mobile banking service.

### 4.1.5.1 Correlation between constructs

#### A. Performance Expectancy

**Hypothesis1:** Performance expectation has Positive effect on the adoption of mobile banking.

**Performance Expectancy-** Performance expectancy is defined as the degree to which an individual believes that using the system will help him or her to attain gains in job performance. (Venkatesh et al. 2003)

**Table 4.12 Correlations Between Performance Expectancy and Behavioral Intension.**

	BIHAVINT	PERFEXP
Pearson Correlation	1	.624**
BIHAVINT Sig. (2-tailed)		.000
N	400	400
Pearson Correlation	.624**	1
PERFEXP Sig. (2-tailed)	.000	
N	400	400

Source: SPSS data, 2016

The correlation results showed that the Perceived Expectancy factor had moderate positive relationship with the behavioral intention of customers toward Adopting CBE’s mobile banking service. Furthermore, the descriptive results showed that the mean of current users felt that mobile banking service is useful. The literature therefore reinforces the findings of the analysis and the hypothesis that Perceived expectancy is positively influence the Behavioral intension of customers toward using mobile banking is supported.

#### B. Perceived risk

**Hypothesis2:** Perceived risk has negative effect on adoption of mobile banking.

**Perceived risk-** The risk regarded to the service. It also refers to the users' expectation of suffering a loss in the outcome of using Mobile Banking. (Ali & Hayat, 2014).

**Table 4.13 Correlations Between Perceived Risk and Behavioral Intension.**

		BIHAVINT	PERCRISK
BIHAVINT	Pearson Correlation	1	-.201**
	Sig. (2-tailed)		.000
	N	400	400
PERCRISK	Pearson Correlation	-.201**	1
	Sig. (2-tailed)	.000	
	N	400	400

Source: SPSS data, 2016

The correlation results showed that the Perceived risk factor had weak negative relationship with the behavioral intention of customers toward Adopting CBE’s mobile banking service. Furthermore, the descriptive results showed that the mean of current users felt that mobile banking service is useful. The literature therefore reinforces the findings of the analysis and the hypothesis that Perceived risk is negatively influence the Behavioral intension of customers toward using mobile banking is supported.

### C. Service Quality

**Hypothesis3:** Quality of service has a positive effect on behavioral intention to adopt mobile banking. Service quality refers to reliability, content quality, personalization. Daft and Lengel (1986)

**Table 4.14 Correlations Between Service Quality and Behavioral Intension.**

		BIHAVINT	SERVQUAL
BIHAVINT	Pearson Correlation	1	.028
	Sig. (2-tailed)		.572
	N	400	400
SERVQUAL	Pearson Correlation	.028	1
	Sig. (2-tailed)	.572	
	N	400	400

Source: SPSS data, 2016

The correlation results showed that the service quality factor had moderate positive relationship with the behavioral intention of customers toward Adopting CBE’s mobile banking service. Furthermore, the descriptive results showed that the mean of current users felt that mobile banking service is useful. The literature therefore reinforces the findings of the analysis and the hypothesis that service quality is positively influence the Behavioral intension of customers toward using mobile banking is supported.

**D. Trust**

**Hypothesis4:** Trust has a positive effect on behavioral intention to adopt mobile banking.

Trust can be understood as “the belief that vendors will perform some activity in accordance with customer’s expectations” (Gefen & Straub, 1997).

**Table 4.15 Correlations Between Trust and Behavioral Intension.**

	BIHAVINT	TRUST
Pearson Correlation	1	.574**
BIHAVINT Sig. (2-tailed)		.000
N	400	400
Pearson Correlation	.574**	1
TRUST Sig. (2-tailed)	.000	
N	400	400

Source: SPSS data, 2016

The correlation results showed that the Trust factor had moderate positive relationship with the behavioral intention of customers toward Adopting CBE’s mobile banking service. Furthermore, the descriptive results showed that the mean of current users felt that mobile banking service is useful. The literature therefore reinforces the findings of the analysis and the hypothesis that Trust is positively influence the Behavioral intension of customers toward using mobile banking is supported.

**Table 4.16 Correlation matrix**

	<b>Behavioral Intension</b>	<b>Perceived Expectancy</b>	<b>Perceived Risk</b>	<b>Service Quality</b>	<b>Trust</b>
<b>Behavioral Intension</b>	1				
<b>Performance Expectancy</b>	0.624	1			
<b>Perceived Risk</b>	-0.201	-0.158	1		
<b>Service Quality</b>	0.028	0.034	0.58	1	
<b>Trust</b>	0.574	0.608	-0.382	-0.056	1

Source: SPSS data, 2016

Behavioral intension was found positively related with all independent variables except for perceived risk.

Performance expectancy was also found positively related with all factors except for perceived risk.

Perceived risk was found negatively related with all factors except for service quality and finally trust was found positively related with behavioral intension and performance expectancy, and negatively related with perceived risk and service quality.

#### 4.1.5.2 Regression analysis

The following table shows the unstandardized and standardized regression weights for the variables and the result discussed and interpreted below along with regression model.

Source: SPSS data, 2016

**Table 4.17 Regression: dependent variable Behavioral Intension**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.605	.432		1.401	.162
PERFEXP	.543	.059	.435	9.195	.000
PERCRISK	-.017	.038	-.018	-.440	.661
TRUST	.305	.051	.304	6.015	.000
SERVQUAL	.077	.091	.031	.840	.401

**Note:**

PERFEXP= Performance Expectation

PERCRISK= Perceived Risk

SERVQUAL= Service Quality

B= Beta

Std. Error= Standard Error

Sig= significance

According to the regression unstandardized coefficients for the four independent variables, i.e. estimated Perceived Expectancy (PE), estimated Perceived Risk (PR), estimated Service Quality (SQ), and estimated Trust (T) are 0.543, -0.017, 0.077 and 0.305 respectively. Their significance levels are 0.000, 0.661, 0.401 and 0.000 respectively. The relative importance of the significant predictors is determined by looking at the standardized coefficients. Performance Expectation has the highest standardized coefficient and the lowest significance, which means PE, is the best predictor.

**Table 4.18 Predictors of Behavioral Intention**

Rank	Dimension	Beta	T	Significance
1	PE	.435	9.195	.000
2	T	.304	6.015	.000
3	SQ	.031	.840	.401
4	PR	-.018	-.440	.661

Source: SPSS data, 2016

#### 4.1.5.3 Summary of Hypothesis Result

**Table 4.19 Summary of hypothesis test**

No	Hypotheses	Results	Reason
H1	Performance expectation has Positive effect on the adoption of mobile banking.	<b>Supported</b>	Correlation results, Rho=0.624 , Pr<0.01, Alpha=0.05 Regression result $\beta = .543$ , sig. 0.000
H2	Perceived risk has negative effect on adoption of mobile banking	<b>Rejected</b>	Correlation results, Rho=-0.201, Pr<0.01, Alpha=0.05 Regression result $\beta = -.017$ , sig. .661
H3	Quality of service has a positive effect on behavioral intention to adopt mobile banking.	<b>Rejected</b>	Correlation results, Rho=.572, Pr<0.01, Alpha=0.05 Regression result $\beta = .077$ , sig. .401
H4	Trust has a positive effect on behavioral intention to adopt mobile banking.	<b>Supported</b>	Correlation results, Rho=.574, Pr<0.01, Alpha=0.05 Regression result $\beta = .305$ , sig. .000

#### 4.1.6 Group Analysis

To investigate differences on mobile learning acceptance, this research compared different customer groups across the variables of Performance Expectancy, Perceived Expectancy, Service Quality, Trust and behavior intention, using the independent samples t-test to compare population means of two different groups and analysis of variance test (ANOVA) to compare population means of multiple groups. Significance level (p-value) was set to 0.05. In both tests,

homogeneity of variance was evaluated using Levene’s statistics to detect a difference in variance and taken into consideration of group comparisons when the analysis was done.

Independent samples t-tests were conducted it was to determine if there was a significant difference on independent and dependent factors between female and male user of mobile banking on their behavioral intention to use mobile banking;

**Table 4.20 Group statistics of Performance Expectancy by gender**

	gender of respondents	N	Mean	Std. Deviation	Std. Error Mean
PERFEXP	male	259	3.8632	.72115	.04481
	female	141	3.7386	.78021	.06571

Source: SPSS data, 2016

**Table 4.21 T-test of gender vs. Performance Expectancy and Levene’s test for equality of variances**

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
PERFEXP	2.394	.123	1.604	398	.110	.12461	.07770	-.02815	.27737

Source: SPSS data, 2016

Levene statistics of tests indicate variance homogeneity at significant levels of 0.123 (sig >0.05), respectively. Thus, the two-tail significance for equal variances estimates was 52 used to determine whether the difference existed between two groups of mobile banking user’s i.e. for male and female. As presented in the above table, the results for tests suggested that there is no significant difference between the mobile banking users groups. The mean test results of two gender-oriented independent-sample T tests for mobile banking adoption. In the homogeneity test of variance, sig=0.123 (greater than the significance level sig=0.05), meaning that the

variance is homogeneous that the test on gender revealed a non significant difference between females and males on Performance Expectancy.

**Table 4.22 Group statistics of Perceived Risk by gender**

	gender of respondents	N	Mean	Std. Deviation	Std. Error Mean
PERCRISK	male	259	2.7490	1.02943	.06397
	female	141	2.8482	.94170	.07931

Source: SPSS data, 2016

**Table 4.23 T-test of gender vs. Perceived Risk and Levene’s test for equality of variances**

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
PERCRISK	1.288	.257	-.948	398	.344	-.09919	.10460	-.30483	.10644

Source: SPSS data, 2016

Levene statistics of tests indicate variance homogeneity at significant levels of 0.257 (sig >0.05), respectively. Thus, the two-tail significance for equal variances estimates was 52 used to determine whether the difference existed between two groups of mobile banking user’s i.e. for male and female. As presented in the above table, the results for tests suggested that there is no significant difference between the mobile banking user groups. The mean test results of two gender-oriented independent-sample T tests for mobile banking adoption. In the homogeneity test of variance, sig=0.257 (greater than the significance level sig=0.05), meaning that the variance is homogeneous, meaning that the test on gender revealed a non significant difference between females and males on Perceived Risk.

**Table 4.24 Group statistics of Service Quality by gender**

	gender of respondents	N	Mean	Std. Deviation	Std. Error Mean
SERVQUAL	male	259	4.0533	.38752	.02408
	female	141	4.0454	.36984	.03115

Source: SPSS data, 2016

**Table 4.25 T-test of gender vs. Service Quality and Levene's test for equality of variances**

	Levene's Test for Equality of Variances	t-test for Equality of Means								
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SERVQUAL	Equal variances assumed	.166	.684	.198	398	.843	.00789	.03992	-.07058	.08636

Source: SPSS data, 2016

Levene statistics of tests indicate variance homogeneity at significant levels of 0.684 (sig >0.05), respectively. Thus, the two-tail significance for equal variances estimates was 52 used to determine whether the difference existed between two groups of mobile banking user's i.e. for male and female. As presented in the above table, the results for tests suggested that there is no significant difference between the mobile banking user groups. The mean test results of two gender-oriented independent-sample T tests for mobile banking adoption. In the homogeneity test of variance, sig=0.684 (greater than the significance level sig=0.05), meaning that the variance is homogeneous, meaning that the test on gender revealed a non significant difference between females and males on Service Quality.

**Table 4.26 Group statistics of Trust by gender**

	gender of respondents	N	Mean	Std. Deviation	Std. Error Mean
TRUST	male	259	3.7181	.86586	.05380
	female	141	3.2624	.95727	.08062

Source: SPSS data, 2016

**Table 4.27 T-test of gender vs. Trust and Levene’s test for equality of variances**

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
TRUST	2.093	.149	4.843	398	.000	.45574	.09409	.27075	.64072

Source: SPSS data, 2016

Levene statistics of tests indicate variance homogeneity at significant levels of 0.149 (sig >0.05), respectively. Thus, the two-tail significance for equal variances estimates was 52 used to determine whether the difference existed between two groups of mobile banking user’s i.e. for male and female. As presented in the above table, the results for tests suggested that there is no significant difference between the mobile banking user groups. The mean test results of two gender-oriented independent-sample T tests for mobile banking adoption. In the homogeneity test of variance, sig=0.149 (greater than the significance level sig=0.05), meaning that the variance is homogeneous, meaning that the test on gender revealed a non significant difference between females and males on Trust.

**Table 4.28 Group statistics of Behavioral intension by gender**

	gender of respondents	N	Mean	Std. Deviation	Std. Error Mean
BIHAVINT	male	259	4.0338	.93026	.05780
	female	141	4.0160	.92399	.07781

Source: SPSS data, 2016

**Table 4.29 T-test of gender vs. Behavioral Intension and Levene's test for equality of variances**

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
BIHAVINT	.037	.847	.184	398	.854	.01783	.09713	-.17312	.20877

Source: SPSS data, 2016

Levene's statistics of tests indicate variance homogeneity at significant levels of 0.847 (sig >0.05), respectively. Thus, the two-tail significance for equal variances estimates was 52 used to determine whether the difference existed between two groups of mobile banking user's i.e. for male and female. As presented in the above table, the results for tests suggested that there is no significant difference between the mobile banking user groups. The mean test results of two gender-oriented independent-sample T tests for mobile banking adoption. In the homogeneity test of variance, sig=0.847 (greater than the significance level sig=0.05), meaning that the variance is homogeneous, meaning that the test on gender revealed a non significant difference between females and males on Behavioral intension.

**Table 4.30 Summary of individual T-test Genders impact on the factors**

Variable	Character	Result
PE	Homogenous	Non-significant
PR	Homogenous	Non-significant
SQ	Homogenous	Non-significant
T	Homogenous	Non-significant
BI	Homogenous	Non-significant

**Table 4.31 ANOVA between Ages in each determinant**

		Sum of Squares	df	Mean Square	F	Sig
PE	Between Groups	9.488	3	3.163	5.927	.001
	Within Groups	211.326	396	.534		
	Total	220.814	399			
PR	Between Groups	20.869	3	6.956	7.296	.000
	Within Groups	377.588	396	.954		
	Total	398.458	399			
SQ	Between Groups	.350	3	.117	.802	.493
	Within Groups	57.550	396	.145		
	Total	57.900	399			
T	Between Groups	18.826	3	6.275	7.721	.000
	Within Groups	321.852	396	.813		
	Total	340.678	399			
BI	Between Groups	10.315	3	3.438	4.095	.007
	Within Groups	332.508	396	.840		
	Total	342.823	399			

Source: SPSS data, 2016

A one-way ANOVA tests whether the means of all the groups are the same. The test whether the groups' mean are the same is represented by the F-ratio.

For Perceived Expectancy the value of F-ratio is 5.927 and the significant value for F-ratio (0.001) is less than 0.01. Therefore, there is significant difference between Age groups with regard to Performance Expectation.

For Perceived Risk the result shows that the value of  $F$ -ratio is 7.296 and the significant value for  $F$ -ratio is 0.000 which is less than 0.01. Therefore, there is significant difference between Age groups with regard to Perceived Risk.

For Service Quality the result shows that the value of  $F$ -ratio is 0.802 and the significant value for  $F$ -ratio is 0.493 which is greater than 0.01. Therefore, there is non-significant difference between Age groups with regard to Service Quality.

For Trust the result shows that the value of  $F$ -ratio is 7.721 and the significant value for  $F$ -ratio is 0.000 which is less than 0.01. Therefore, there is significant difference between Age groups with regard to Trust.

For Behavioral Intension the result shows that the value of  $F$ -ratio is 4.095 and the significant value for  $F$ -ratio is 0.007 which is less than 0.01. Therefore, there is significant difference between Age groups with regard to Trust.

**Table 4.32. ANOVA between Education Qualifications in each determinant**

		Sum of Squares	df	Mean Square	F	Sig
PE	Between Groups	39.830	4	9.957	21.732	.000
	Within Groups	180.985	395	.458		
	Total	220.814	399			
PR	Between Groups	28.834	4	7.208	7.703	.000
	Within Groups	369.624	395	.936		
	Total	398.458	399			
SQ	Between Groups	.202	4	.051	.346	.847
	Within Groups	57.698	395	.146		
	Total	57.900	399			
T	Between Groups	59.344	4	14.836	20.830	.000
	Within Groups	281.334	395	.712		
	Total	340.678	399			
BI	Between Groups	45.983	4	11.496	15.297	.000
	Within Groups	296.840	395	.751		
	Total	342.823	399			

Source: SPSS data, 2016

A one-way ANOVA tests whether the means of all the groups are the same. The test whether the groups' mean are the same is represented by the F-ratio.

For Perceived Expectancy the value of F-ratio is 21.732 and the significant value for F-ratio (0.000) is less than 0.01. Therefore, there is significant difference between Educational Qualification with regard to Performance Expectation.

For Perceived Risk the result shows that the value of *F*-ratio is 7.703 and the significant value for F-ratio is 0.000 which is less than 0.01. Therefore, there is significant difference between Educational Qualification with regard to Perceived Risk.

For Service Quality the result shows that the value of *F*-ratio is 0.346 and the significant value for F-ratio is 0.847 which is greater than 0.01. Therefore, there is non-significant difference between Educational Qualification with regard to Service Quality.

For Trust the result shows that the value of *F*-ratio is 20.830 and the significant value for F-ratio is 0.000 which is less than 0.01. Therefore, there is significant difference between Educational Qualification with regard to Trust.

For Behavioral Intension the result shows that the value of *F*-ratio is 15.297 and the significant value for F-ratio is 0.000 which is less than 0.01. Therefore, there is significant difference between Age groups with regard to Trust.

**Table 4.33 Summary of ANOVA test of Age's & Educational qualifications impact on the determinants.**

Variable	Result
PE	Significant
PR	Significant
SQ	Non-significant
T	Significant
BI	Significant

## 4.2 DISCUSSION

This study is concerned with an investigation of factors that could affect mobile banking adoption on customers of commercial bank of Ethiopia. These factors include Performance expectancy, Perceived risk, Mobile banking service quality, Trust, and Behavioral intention items and the finding are discussed as follows.

The construct, Performance Expectancy, had a strong impact on the model i.e Venkatesh et al. 2003 UTAUT model. Customers with high performance expectancy had high intention to adopt mobile banking. This study is congruent with Venkatesh et al. (2003), in which Performance expectancy was found to have significant influence on the behavioral intention to adopt mobile banking. Thus, this result could imply those customers who expect to gain benefits from using mobile banking are more likely to have intention to adopt mobile banking which provides benefit to them in transacting, sending, money through their mobile phone. These outcomes are consistent with previous studies of Cheong and Park (2005), Chiu et al. (2005), Wang et al. (2003), and Venkatesh and Morris (2000). Hence, when mobile banking is shown to be useful, bank customers' intention to adopt it will be greater.

Researches confirmed that risk has influence on intention to adopt mobile banking in negative way but it is not significantly because its sig is greater than acceptable sig<0.05. Several mobile banking adoption studies have supported that people refuse or are unwilling to use mobile banking mainly because of perceived risk (Brown et al. 2003). The study by Brown et al. (2003) main findings tells us risk has negative effect on adoption on mobile banking. This study finding is consistent with Browns study mentioned above. Meaning when customers believe that using mobile banking is riskier they intend no to adopt or use mobile banking in this study context.

In this study, the other non significant variable is Service quality of mobile banking. In fact it have positive relationships with adoption it previous research service quality were positively related to behavior intention, meaning as the quality for the service increases behavior intention should increases. For example Yu Huang (2014) finding tells us that there is positive relationship between service quality of mobile banking and adoption of mobile banking.

The construct, Trust, had a strong impact on the adoption of mobile banking, customers with high Trust had high intention to adopt mobile banking. Thus, this result could imply those customers who think using mobile banking trust worthy are more likely to have intention to adopt mobile banking it was consistent with Gefen et al. (2003) showed that trust was a major driver of customers' intention to use.

Finally the demographic factor which includes gender, age and educational qualification were tested using t-test and ANOVA. The t-test for gender show interesting finding, no significant difference between male and female in this study. The ANOVA test for age and educational qualifications found significant for all factors except for service quality.

## CHAPTER FIVE

# CONCLUSION AND RECOMMENDATION

### 5.1. CONCLUSION

This paper developed a theoretical model of user adoption on mobile banking services based on The Unified Theory of Acceptance and Use of Technology (UTAUT), and attempted to explore the influencing factors which play a role in user's adoption of mobile banking. By collecting questionnaire survey data, the study proceeded statistical analysis using SPSS and tested the theoretical model and further made a discussion on the results of data analysis. This study is concerned with an investigation of factors that could affect mobile banking adoption on commercial bank of Ethiopia customers. These factors include Performance expectancy, Perceived risk, Service Quality, Trust and Behavioral intention items. Performance expectancy is found to have a positive and direct influence on mobile banking adoption. A large coefficient,  $\beta = 0.543$  as compared to other all factors and with the sig of 0.000. Furthermore, trust was found to have positive and significant influence on mobile banking adoption  $\beta$  beta= 0.305 and sig. of 0.000. Perceived Risk has negative effect but not-significant influence on mobile banking adoption with a beta value of -0.017 and sig. of 0.661. Service quality has a positive impact on mobile banking adoption but not significantly.

Group analysis was conducted using independent samples t-tests and ANOVA to measure the relationship between demographic factors and the variables and mobile banking adoption.

In this study Gender was found non-significant parameter for both independent and dependent variables. Despite gender, age is found as significant factor for performance expectancy, perceived risk, trust and behavioral intension and become non-significant parameter for service quality. The third demographic factor educational qualification found significant for all dependent and independent variables except for service quality.

## 5.2. RECOMMENDATION

As suggested in chapter one in the significance of the study section the primary stakeholder that would be interested in the finding of the study are policy makers and banks in Ethiopia who have already or planning to introduce mobile banking for their customers. The identification and confirmation of factor affecting the adoption of mobile banking provides banks with information on what is expected and what is required to make these channel more utilized among their customer base. The factors for example performance expectancy and Trust should be marketed aggressively.

Hence, policy makers should concern on regulation about security issues, the manner in which mobile banking are implemented, identifying users, protecting users and how much money can be transacted, should be a major area the regulation should addressed in order to improve the trust account holders have about the mobile banking service.

In performance expectancy officials should give aggressive awareness of mobile banking service usefulness, i.e. convenience, time saving and productivity. The research has also potential implications for system designers. They should emphasize performance expectancy and effort expectancy in the architects of mobile banking while ensuring reliable content and high quality service, since no matter how easy a system is to use, the system will not be used if it is not deemed useful in banking activity.

To sum up with the identified factors provides beneficial information to banks to ensure that if they want to increase adoption of mobile banking in their operation, they would be aware of what is required to make this happen. Essentially the factors indentified provide the bank with an opportunity to increase their sales and increase profits by addressing the factors via innovative marketing and educational promotions to tell customers what mobile banking is, how it works, what the benefits are and highlight the security aspects and advantages.

### 5.3 AREA FOR FURTHER INVESTIGATION

For other researchers who conduct their thesis on the area of technology adoption the student researcher advises them if they use other models other than UTAUT model, or UTAUT model with more moderating factors.

That's advisable if they take samples from different banks not only from a single branch as used on this paper and also that's good if they use different ways of data collection instruments.

Finally the student researcher advises them if they use SEM to measure the impact of the moderating factors than using T-test and ANOVA test.

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Appendix

**ADDIS ABABA UNIVERSITY**

**SCHOOL OF COMMERCE**

**DEPARTMENT OF MARKETING MANAGEMENT**

**Survey Questionnaire**

The intent of this questionnaire is to identify factors which affect customer's adoption of mobile banking. Hence, taking in to account its educational purpose, you are kindly requested to feel the questionnaire objectively and honestly since the student researcher believes that the outcome of this study will highly depend up on your cooperation. Participation is purely voluntary.

My name is Biruk Tesfaye if you have any comment or questions you can contact me using my number 0913007952.

I would like to thank you for your cooperation and allowing me to take a few minutes of your valuable time.

**NOTE:-**

- No need of writing your name
- Your confidentiality maintained sincerely

**Section A: Demographic Detail**

**Please put a “√” to indicate your choice.**

1. Age

18-30       31-45       46-60

61 and above

2. Gender

Male       Female

3. Education Level

Primary School Completed  High School Completed

Diploma or Degree Completed  Masters and above

**Section B: Factors Affecting Customers Adoption of Mobile Banking**

Please indicate the extent to which you agree or disagree with each of the following statement and make a circle to choose the number from 1-5 that best represents your level of agreement with the statement.

*Here (1= strongly Disagreee 2= Disagreee 3= Neutral 4= Agree*

*5= strongly agree)*

**Perceived Expectancy**

S.No.	Items	Scale				
		1	2	3	4	5
PE01	I found mobile banking services useful.	1	2	3	4	5
PE02	Mobile banking suits my life style.	1	2	3	4	5
PE03	Using mobile banking services enables me to accomplish banking task more quickly.	1	2	3	4	5
PE04	Using mobile banking services increase my productivity in handling my banking tasks.	1	2	3	4	5
PE05	Using mobile banking services enhance my bank transactions quality.	1	2	3	4	5
PE06	Using mobile banking services increase my efficiency in conducting my banking tasks.	1	2	3	4	5
PE07	Mobile banking services improve my payment convenience.	1	2	3	4	5

## Service Quality

S.No.	Items	Scale				
		1	2	3	4	5
<b>SQ01</b>	I believe that the banking transactions performed on a mobile phone will work satisfactorily.	1	2	3	4	5
<b>SQ02</b>	My mobile banking service has visually appealing features, such as graphic, appropriate colors and fonts, and good page layout In my mobile banking menu.	1	2	3	4	5
<b>SQ03</b>	My mobile banking service is always available without network and system frailer.	1	2	3	4	5
<b>SQ04</b>	I believe mobile banking service offered by CBE is reliable.	1	2	3	4	5
<b>SQ05</b>	The CBE's mobile banking service is customized.	1	2	3	4	5

## Perceived Risk

S.No.	Item	Scale				
		1	2	3	4	5
<b>PR01</b>	I think using mobile banking services for monetary transactions have potential risk.	1	2	3	4	5
<b>PR02</b>	I think that privacy is not guaranteed when using mobile banking services.	1	2	3	4	5
<b>PR03</b>	I believe it can rather easily happen that money can be stolen if mobile banking services are used.	1	2	3	4	5
<b>PR04</b>	Conducting banking transactions on mobile phones is risky because one can easily lose or misplace the mobile phone.	1	2	3	4	5
<b>PR05</b>	I think mobile banking services are more risky than other banking options.	1	2	3	4	5

## Trust

S.No.	Item	Scale				
		1	2	3	4	5
<b>T01</b>	Using mobile banking, I believe my transactions are secured.	1	2	3	4	5
<b>T02</b>	Using mobile banking, I believe my privacy is secured.	1	2	3	4	5
<b>T03</b>	Using mobile banking, I believe my information is kept confidential.	1	2	3	4	5
<b>T04</b>	Mobile banking makes me more comfortable to communicate with the bank.	1	2	3	4	5

## Behavioral Intension

S.No.	Item	Scale				
		1	2	3	4	5
<b>BI01</b>	I will continue to use mobile banking service in the future.	1	2	3	4	5
<b>BI02</b>	I will use mobile banking service for various types of banking transaction.	1	2	3	4	5
<b>BI03</b>	I believe it is worthwhile for me to adopt mobile banking services.	1	2	3	4	5
<b>BI04</b>	I will advise others to adopt mobile banking.	1	2	3	4	5

THANK YOU!

**አዲስ አበባ ዩኒቨርሲቲ**

**የንግድ ሥራ ትምህርት ቤት**

**የማርኬቲንግ ትምህርት ክፍል ድህረ-ምረቃ ፕሮግራም**

**ዳሰሳዊ መጠይቅ**

የዚህ መጠይቅ ዓላማ ደንበኞች ከተንቀሳቃሽ ስልክ የባንክ አገልግሎት ጋር ባላቸው ቁርኝት ላይ

ተጽዕኖ የሚያሳድሩ ሁኔታዎችን ለመለየት ነው። በዚህም መሰረት የመጠይቁን ትምህርታዊ ዓላማ ከግንዛቤ ውስጥ በመክተት እና ጥናት አጥኚው ተማሪም የዚህ ጥናት ውጤት በዋነኛነት በርስዎ ትብብር ላይ የተመሰረተ ነው ብሎ በማመኑ መጠይቁን በትክክልና በሃቀኝነት ይሞሉ ዘንድ በትህትና እጠይቃለሁ።

ስለትብብርዎ እና ከውድ ጊዜዎ ጥቂት ደቂቃ ሊሰጡኝ ስለፈቀዱ ላመሰግንዎት እወዳለሁ። ጥያቄዎችን በተመለከተ ላሎት ጥያቄም ሆነ አስተያየት በ0913 00 79 52 ብሩክ ተስፋዬ ብለው ቢደውሉልኝ በደስታ እቀበላለሁ።

**ማስታወሻ:-**

- ስምዎትን መፃፍ አያስፈልግም።
- የሚሰጡትን አስተያየት ሚስጥራዊነቱ የተጠበቀ ነው።

**ክፍል ሀ :- የግል ሁኔታ መግለጫ**  
**እባክዎ ምርጫዎን ለማመልከት የ√ምልክት ያስቀምጡ።**

1.ዕድሜ  
18-30  31-45  46-60  61 እና ከዚያ በላይ

2.ጾታ  
ወንድ  ሴት

**3.የትምህርት ደረጃ**

የመጀመሪያ ደረጃ ትምህርት ያጠናቀቁ  የሁለተኛ ደረጃ ትምህርት ያጠናቀቁ

ዲፕሎማ እና ዲግሪ  ሁለተኛ ዲግሪ እና ከዚያ በላይ

**ክፍል ለ :-ደንበኞች ከተንቀሳቃሽ ስልክ የባንክ አገልግሎት ጋር ባላቸው ቁርኝት ላይ**

**ተጽዕኖ የሚያሳድሩ ሁኔታዎች**

እባክዎ ለቀረቡት እያንዳንዱ ዓ.ነገር የስምምነትዎን ወይም ያለመስማማትዎን ደረጃ ያመልክቱ።ከዓ/ነገሩ ጋር ያልዎትን የስምምነት ደረጃ ከ1-5 ነጥብ ባላቸው ሳጥኖች ውስጥ በማክበብ ይመልሱ።

- 1. በጣም አልስማማም
- 2.አልስማማም
- 3.አስተያየት የለኝም
- 4. እስማማለሁ
- 5. በጣም እስማማለሁ

ተ.ቁ		ደረጃ				
		1	2	3	4	5
4	የተንቀሳቃሽ ስልክ የባንክ አገልግሎትን ጠቃሚ ሆኖ አግኝቼዋለሁ	1	2	3	4	5
5	የተንቀሳቃሽ ስልክ የባንክ አገልግሎት ከአኗኗር ስርዓቱ ጋር የተጣጣመ ነው።	1	2	3	4	5
6	የተንቀሳቃሽ ስልክ የባንክ አገልግሎትን መጠቀሜ ከባንክ ማግኘት የምፈልገውን አገልግሎት በፍጥነት ለማግኘት አስችሎኛል።	1	2	3	4	5
7	የተንቀሳቃሽ ስልክ የባንክ አገልግሎትን መጠቀሜ ያለኝን አፈጻጸም ጨምሮልኛል።	1	2	3	4	5
8	የተንቀሳቃሽ ስልክ የባንክ አገልግሎትን መጠቀሜ በባንክ የማደርገውን ልውውጥ ጥራት አሳድጎታል።	1	2	3	4	5
9	የተንቀሳቃሽ ስልክ የባንክ አገልግሎትን መጠቀሜ የባንክ ኃላፊነቶቼን የመወጣት ብቃቴን ጨምሮታል	1	2	3	4	5
10	የተንቀሳቃሽ ስልክ የባንክ አገልግሎት ስርዓት የክፍያ ሁኔታዬን ምቹ አድርጎታል።	1	2	3	4	5

ተ.ቁ		ደረጃ				
		1	2	3	4	5
11	በተንቀሳቃሽ ስልክ የሚያደርጉ የባንክ ልውውጦች አርኪ በሆነ መልኩ አገልግሎት ይሰጣሉ ብዬ አምናለሁ።	1	2	3	4	5
12	የእኔ ተንቀሳቃሽ ስልክ የባንክ አገልግሎት የተለያዩ የገጽታ ባህሪያት አሉት፤ ለምሳሌ እንደግራፊክ፣ ተገቢ ቀለም፣ የአጻጻፍ ምርጫ እና ጥሩ የሆነ የገጽ አቀማመጥ በተንቀሳቃሽ የባንክ አገልግሎት አማራጮቼ ላ አሉ።	1	2	3	4	5
13	የእኔ ተንቀሳቃሽ ስልክ የባንክ አገልግሎት ካለ ኔትወርክ ሲስተም መቆራረጥና ብልሽት ሁል ጊዜ አገልግሎት ይሰጣል።	1	2	3	4	5
14	በኢ.ን.ባ.የተንቀሳቃሽ ስልክ የባንክ አገልግሎት አስተማማኝ ነው ብዬ አምናለሁ።	1	2	3	4	5
15	የኢ.ን.ባ. የተንቀሳቃሽ ስልክ የባንክ አገልግሎት እንደተጠቃሚው ፍላጎት ሊቀያር የሚችል ነው።	1	2	3	4	5

ተ.ቁ		ደረጃ				
		1	2	3	4	5
16	የተንቀሳቃሽ ስልክ የባንክ አገልግሎትን መጠቀም በገንዘብ ዝውውሮች ላይ ሊያደርሰው የሚችል ጉዳት አለው ብዬ አስባለሁ።	1	2	3	4	5
17	የተንቀሳቃሽ ስልክ የባንክ አገልግሎት በመጠቀም ወቅት የግል መረጃዎች ደህንነታቸው ያልተተበቀ ነው ብዬ አስባለሁ።	1	2	3	4	5
18	የተንቀሳቃሽ ስልክ የባንክ አገልግሎት ጥቅም ላይ ከዋለ የገንዘብ ስርቆት በቀላሉ ሊፈጸም ይችላል ብዬ አምናለሁ።	1	2	3	4	5
19	የባንክ ልውውጦች በተንቀሳቃሽ ስልኮች ማከናወን ጉዳት አለው፤ ምክንያቱም አንድ ሰው ተንቀሳቃሽ ስልኩ በቀላሉ ሊጠፋበት ይችላል።	1	2	3	4	5
20	የተንቀሳቃሽ ስልክ የባንክ አገልግሎቶች ከሌሎች የባንክ አማራጮች የበለጠ ለጉዳት የሚያጋልጡ ናቸው ብዬ አስባለሁ።	1	2	3	4	5

ተ.ቁ		ደረጃ				
		1	2	3	4	5
21	የተንቀሳቃሽ ስልክ የባንክ አገልግሎቶችን በመጠቀም የባንክ ልውውጦች ደህንነታቸው የተተበቀ ነው ብዬ አምናለሁ።	1	2	3	4	5
22	የተንቀሳቃሽ ስልክ የባንክ አገልግሎቶችን በመጠቀም የግል ምስጢሮቹ የተጠበቀ ነው ብዬ አምናለሁ።	1	2	3	4	5
23	የተንቀሳቃሽ ስልክ የባንክ አገልግሎቶችን በመጠቀም መረጃዎቹ ምስጢራዊነታቸው የተጠበቀ ነው ብዬ አምናለሁ።	1	2	3	4	5
24	የተንቀሳቃሽ ስልክ የባንኩ አገልግሎት ከባንኩ ጋር ያለኝን ግንኙነት ምቹ አድርጎልኛል።	1	2	3	4	5

ተ.ቁ		ደረጃ				
		1	2	3	4	5
25	የተንቀሳቃሽ ስልክ የባንክ አገልግሎትን ለወደፊትም መጠቀም እቀጥላለሁ።	1	2	3	4	5
26	የተንቀሳቃሽ ስልክ የባንክ አገልግሎትን ለተለያዩ ዓይነት የባንክ ልውውጦች እጠቀማለሁ።	1	2	3	4	5
27	የተንቀሳቃሽ ስልክ የባንክ አገልግሎቶችን መጠቀም ለኔ ጠቀሜታ አለው ብዬ አምናለሁ።	1	2	3	4	5
28	ሌሎችም የተንቀሳቃሽ ስልክ የባንክ አገልግሎትን እንዲጠቀሙ እመክራለሁ።	1	2	3	4	5

**እናመሰግናለን!**