ADDIS ABABA UNIVERSITY

SCHOOL OF COMMERCE

DEPARTMENT OF PROJECT MANAGEMENT

Assessment of Mobile Banking Practice and its Challenges in the case of Commercial Bank of Ethiopia, South Addis Ababa District

A Project Work Submitted to the Department of Project management as a Partial Fulfillment of the Requirements for the Award of Master of Art Degree in Project Management

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Declaration

I, Berhan Behailu, hereby declare that the thesis entitled **Assessment of Mobile Banking Practice and its Challenges in the case of Commercial Bank of Ethiopia, SAAD,** is the outcome of my own effort and that all sources of materials used in the study have been duly acknowledged. It is offered for the partial fulfillment of the requirement for the degree in Masters of Project Management (MPM).

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This is to certify that the thesis prepared by Berhan Behailu entitled: **Assessment of Mobile Banking Practice and its Challenges in the case of Commercial Bank of Ethiopia, SAAD** and submitted in partial fulfillment of the requirements for the degree of Masters of Project Management (MPM) compiles with the regulations of the university and meets the accepted standards with respect to originality and quality.

_____ _____

Adane Atara (PhD) Date

Advisor

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Abstract

With the convergence of banking services and mobile technologies, users are able to conduct banking services at any place and at any time through mobile banking. This is, therefore; mobile banking has a vital advantage for customers. The main purpose of this study is to assess the practice of mobile banking and its challenges in Commercial Bank of Ethiopia. In so doing, the research used the extended TAM Model, which deals with the factors influencing the practice of mobile banking i.e., Convenience (perceived usefulness and perceived ease of use), perceived trust, perceived risk, perceived cost. Moreover, the research used infrastructure as independent variable to examine its effect of the practice of mobile banking.

Data for the study was collected through closed ended questionnaire which were distributed for 330 respondents and analysis of findings are done based on 313 complete responses. The study employed mean, frequency and t-test extracted from SPSS for analysis. Accordingly, the research has found that customers in the CBE perceived that mobile banking service is useful and easy to use. Customers who are using mobile banking service (86.9%) perceives that cost and risk doesn't affect the practice of mobile banking, whereas, 13.1% of the customers who are not using mobile banking perceives that risk and cost are barriers to use the mobile banking service. In addition, customers at CBE perceive that infrastructure is the most critical factor for the customer to use mobile banking service. Furthermore, the t-test result shows all variables considered have a significant effect on the practice of mobile banking as their probability values are less than 5%.

Keywords

Mobile banking, Convenience, Perceived Risk, Trust, Cost, Commercial Bank of Ethiopia (CBE), South Addis Ababa District.

Table of Contents

List of Tables

List of Figures

List of Acronyms/Abbreviations

ATM- Automated Teller Machine;

CBE- Commercial Bank of Ethiopia;

ICT - Information Communication Technology;

MPIN - Mobile Banking, Personal Identification Number;

MB – Mobile Banking;

NBE-National Bank of Ethiopia;

PDA- Personal Digital Assistant;

PEOU- perceived ease of use;

PIN- Personal Identification Number;

PU- perceived usefulness;

SAAD- South Addis Ababa District;

SMS- Short message service;

SPSS- Statistical Package for Social Sciences;

TAM - Technology Acceptance Model;

TPB -Theory of Planned Behavior;

TRA -Theory of Reasoned Action;

USSD- Unstructured Supplementary Service Data;

UTAUT - the Unified Theory of Acceptance and Use of Technology; and

WAP- Wireless Application Protocol

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

In modern economy a strong and sturdy financial system is a pillar of economic growth and development. The availability of banking facilities and unfolding banking service outreach are the major facilitators of developmental and expansionary activities. In this regard, information technology plays a key role in promoting inclusive financial system as it is the only way to reduce the cost significantly and reach the masses. But of it doesn't mean that technologies are not suitable for financial inclusion due to affordability, accessibility, security and privacy. In the last decade, mobile phone technology has emerged as the most potential and well suited channel for financial inclusion. Use of mobile phone for inclusive finance is very popular in countries where most of the population is unbanked or under banked (Sumanjeet 2010).

According to Petrova (2002) Mobile banking can be defined as the ability to conduct bank transactions via a mobile device, or more broadly to conduct financial transactions via a mobile terminal. This definition is a suitable working one as it includes not only basic services such as bank account statements and funds transfer but also electronic payment options as well as information based financial services (e.g. alerts on account limit or account balance, access to stock broking). M-banking is an invaluable and powerful tool driving development, supporting growth, promoting innovation, and enhancing competitiveness (Nath *et al.*, 2001).

The use of mobile banking can make basic financial services more accessible to people by minimizing time and distance to the nearest retail bank branches. Nowadays, the remarkable progression of mobile sector all over the world has made an exclusive chance for delivering financial as well as social services through mobile network (Kabir 2013). Mobile Banking eliminates the time as well as space shortcomings from banking operations like, balance inquire and fund transfer from one account to another account without visiting bank branches (Mishra and Sahoo, 2013). The m-banking also enable people to use their mobile telephones to manipulate their bank accounts, store value in an account linked to their handsets, transfer funds, or even access credit or insurance products. In the developed world, by complementing services offered by the banking system, such as checkbooks, ATMs, voicemail/landline interfaces, smart cards, point-of-sale networks, and internet resources, the mobile platform offers a convenient additional method for managing money without handling cash. For users in the developing world, on the other hand,

the appeal of these m-banking/m-payments systems may be less about convenience and more about accessibility and affordability (Adegbenjo*et al.*, 2016).

Access to mobile data services can be a distinct part depending on technology or performance type. This opportunity prevail banks gain various benefits of e-banking services, such as, lower interactions costs, provision of services 24 hours a day and increase in the efficiency of the banking process. The spread of mobile phones across the developing world is one of the most remarkable technology stories of the past decade. Indeed, across the developing world, there are probably more people with mobile handsets than with bank accounts (Adegbenjo *et al.*, 2016).

Across the developing world, there are more people with mobile phones than with bank accounts. There were over 3.3 billion phone users, and close to 60% of the subscribers lived in the developing world (Adegbenjo *et al.*, 2016). Thus, many entities with a global development focus have turned to the mobile phone as a potential platform for delivering financial services to the "unbanked". The unbanked are people without formal bank accounts who operate in a cash economy; they are limited in their ability to take out loans, maintain savings, or make remote payments, and these constraints can inhibit their economic opportunities.

Nowadays, the Ethiopian banking industry is composed of two state owned commercial banks and 16 private banks (NBE, 2018). The industry has a network of 4,578branches (NBE, 2018), which is the lowest as compared to the number of population i.e., 94.3 million (Central Statistics Agency, 2017). The International Monetary Fund, Financial Access Survey in 2016 shows that the number of population in Ethiopia being served at a single bank branch is around 34,129which is significantly higher than the Sub-Saharan countries average i.e., 28,629. The mobile banking development in Ethiopia is also not full-fledged in terms of exhaustively utilizing all the mobile services one can be expected to get. Currently, of all the types of mobile banking services, most customers of the bank use notification or alarm inquiry (NBE, 2015). In addition, the mobile banking customers (2.7 million) in Ethiopia are only 5percent of the total populations who manage to have mobile in the country i.e., 53 million. This implies that, although large number of populations have a cell phone, they are not subscribed for mobile banking service due to various factors, which the research is interested to find out.

In Ethiopia, there are, currently, twelve banking institutions that commence mobile banking as per the Directive No. FIS /01/2012. Moreover, exhaustive uses of mobile banking services which are

supposed to be offered in the commercial banks are not well ensured. This shows that the banking industry in Ethiopia is not well strengthened as compared to the neighboring countries like Kenya which has 61 percent utilization of mobile banking, (African Business Central, 2015). The giant state owned Commercial Bank of Ethiopia has mobile banking user of 1.7million as of 2018 (CBE, 2018), which is a very small number as compared to the population size of the country and its total customers i.e., 18.8 million.

In order to further enhance mobile banking practice in developing countries, a better understanding of the challenges and drivers impacting M-banking adoption is critical (Zhao *et al.*, 2008). By gaining an in-depth understanding of the challenges and conditions that influence developing country's ability to fully adopt mobile banking and realize its benefits, strategic implications can be generated by researchers and practitioners regarding how to promote this service in the developing countries. However, despite the importance of the study area in developing countries, limited studies have been conducted so far particularly in Ethiopia. Therefore, more studies are still required to find out the root cause that impedes the practice of Mobile banking in the giant state owned Commercial Bank of Ethiopia which took about 62.96percent of the market share in the Ethiopian banking industry. Therefore, to address the current gap in the literature; this study is designed to assess the practice of Mobile banking and it's challenges in Commercial Bank of Ethiopian, South Addis Ababa District.

1.2. Problem Statement

The convergence of telecommunication and banking services has created opportunities for the emergence of mobile commerce, in particular mobile banking. Mobile banking services provide time independence, convenience and promptness to customers, along with cost savings. Mobile banking presents an opportunity for banks to expand market penetration through mobile services (Lee *et al.*, 2007).

The use of technology and innovative financial service delivery channels such as mobile banking have significant contribution in deepening financial service accessibility to the wider section of the population at an affordable price (NBE Directive, 2012). According to African Business Central (ABC) report in April 16, 2015, top seven African countries for mobile money/Mobile payment use by countries are:- Kenya 61%, Uganda 42%, Tanzania 39%, Senegal 29%, Ghana

18%, South Africa 15%, and Nigeria 15%. It indicates that even though our country Ethiopia starts to use the Mobile Banking service in recent, the development is not as expected as compared to the cited countries. According to the CBE's annual report 2018, the bank's mobile banking customers are only 9% of its total customers, which is very low.

In Ethiopian there was a limitation of researches, which are conducted in mobile banking particularly in Commercial Bank of Ethiopia. Although, some prior researchers like: (Kalkidan, 2016; Hayat, 2017) have tried to make research on mobile banking but their study was too general as it has been made in the Ethiopian banking industry, which is not able to show the root cause that affect customer of CBE not to use mobile banking service as desired. In addition, throughout the researcher's experience as a Customer Service Manager at CBE grade four branch, a significant number of customers who use mobile banking have always been noticed coming to the bank to use bank services.

The Commercial Bank of Ethiopia is making an investment into the mobile banking project for effective provision of mobile banking service to its customers. Hence, it is important for commercial banks that provide mobile banking service to understand the challenges impeding the intention to use mobile banking service, in order to obtain the desired end result of the project thereby create cash less society, which is the ultimate objective of financial sectors in the current digital world. Moreover, a clear understanding of these factors will enabled the Commercial Bank of Ethiopia to develop suitable marketing strategies, tailored awareness creation programs and pilot projects.

1.3. Objective of the Study

1.3.1. General objective

The general objective of the study is to assess the practice of mobile banking and its challenges in Commercial Bank of Ethiopia. In addition to this, the study has the following specific objectives.

1.3.2. Specific objectives

- To examine how convenience (perceived ease of use and perceived usefulness) affects the practice of mobile banking in Commercial Bank of Ethiopia.
- To explore how perceived trust affects the practice of mobile banking in Commercial Bank of Ethiopia.
- To assess how perceived cost affects the practice of mobile banking in Commercial Bank of Ethiopia.
- To investigate how perceived risk affects the practice of mobile banking in Commercial Bank of Ethiopia.
- To examine how infrastructure development affects the practice of mobile banking in Commercial Bank of Ethiopia.

1.4. Significance of the study

The ultimate goal of any business organization is to remain in business profitably through production and sale of products or services. Nowadays, automated technologies like e-payments in the banking industry would play an immense role not only in achieving their targets but also to survive in the industry. Therefore, investigating the challenges in the practice of e-payment, such as mobile banking, is quite significant to commercial banks. In addition to these, the study would have the following significances:-

- The study would assist economists, planners and policy makers to understand the challenges that would adversely affect the practice of mobile banking project.
- The study tried to indicate problem areas to be researched in future for interested researcher.
- The result of the study provides valuable insight to managers of bank on how to mitigate the challenges in the practice of mobile banking project.

- In addition, the study increases the level of understanding of the CBE staff members on the mobile banking challenges.

1.5. Scope and limitation of the study

Although, there are fifteen Districts in Commercial Banks of Ethiopia that are providing mobile banking service, the study focused on South Addis Ababa District (SAAD), which comparatively found to have the large portion of mobile banking customers (CBE, 2018). Therefore, the study focused on assessing the mobile banking project practices and its challenges in CBE SAAD grade four branches only. This is mainly due to the fact that grade four branches relatively have large number of mobile banking customers, which are stayed for long period. In addition, the time and financial constraints forced the study to be limited to these areas as traveling across districts requires sufficient time and cost. Since, SAAD has similar working procedures, rules and regulations with other districts in the bank, focusing on grade 4 branches of the district would have no compromise on the study result. As a result, the study result would represent not only SAAD but also other districts of the bank.

1.6. Organization of the Study

The paper consists five chapters. The first chapter deals with the introduction part that would consist of background of the study, statements of the problem, objectives of the study, significances of the study and scope of the study. While the second chapter, contains a review of the related literatures which includes both theoretical and empirical literatures. Accordingly, the research design and methodology is presented in the third chapter. In chapter four, the results and findings of the study has been discussed. Finally, the last chapter deals with the conclusions and recommendations which would be forwarded based on the result obtained.

CHAPTER TWO: LITRATURE REVIEW

2.1. Theoretical Literature

2.1.1. Definition of Mobile Banking

Mobile banking is an application of mobile commerce which enables customers to access bank accounts through mobile devices to conduct and complete bank-related transactions such as balancing cheques, checking account statuses, transferring money and selling stocks (Kim *et al*., 2009). (Luo *et al*., 2010), defined mobile banking as an innovative method for accessing banking services via a channel whereby the customer interacts with a bank using a mobile phone.

Mobile banking also means performing banking activities which primarily consist of opening and maintaining mobile/regular accounts and accepting deposits; furthermore, it includes performing fund transfer or cash-in and cash-out services using mobile devices (NBE Directive, FIS-01-2012). In the broader sense mobile banking enables the execution of financial services in the course of which - within an electronic procedure - the customer uses mobile communication techniques in conjunction with mobile devices (Pousttchi and Schurig 2004 as cited in Singh 2011).

Mobile Banking can perform various functions like mini statement, checking of account history, SMS alerts, access to card statement, balance check, mobile recharge etc. via mobile phones (Vinayagamoorthy and Sankar 2012). Banks are constantly updating their technology and want to increase their customer base by reaching to each and every customer. There are many advantages of using mobile banking, such as people in the rural or remote areas can also get an easy access to mobile banking whenever required.

Mobile banking is a developing mobile technique that has combined information technology and commerce applications together. Since mobile banking was introduced, consumers have been able to use it to obtain special services 24 hours a day without having to visit the traditional bank branch for personal transactions.

2.1.2. Background of Mobile Banking Technology

Currently, the advancement of mobile technologies has provided an opportunity for financial providers in introducing new financial innovations. One of the emerging financial innovations introduced by financial providers in an effort to increase customer satisfaction and efficiency is mobile banking.

More recent developments in Information Communication Technology (ICT) have provided the opportunity for customers to access banking services without necessarily going to the bank branches. This technological development has intensified in recent years and has led to the reduction of financial institutions' costs (Mari 2003; Saleem and Rashid 2011).

Customers will be able to obtain immediate and interactive banking services anytime and anywhere which, in turn, initiate great value for them (Mallat*et al*., 2004). Mobile banking service can also increase the amount of data processing and improve operational performance. Moreover, adoption of mobile banking has significant impact on reducing costs and facilitating change in retail banking (Laukkanen and Lauronen 2005).Cruz *et al*. (2010) and Dasgupta et al. (2011) stated that mobile banking has great potential to provide reliable services to people living in remote areas where internet facility is limited.

Mobile banking "helps banks to increase speed, shorten processing periods, improve the flexibility of business transactions and reduce costs associated with having personnel serve customers physically" (Ayo *et al.*, 2010).

The use of mobile phones has facilitated the expansion of markets, social business, and public services in both developing and developed countries (Spence and Smith 2010). Lin (2011) claims that rapid advances in mobile technologies have made mobile banking increasingly important in financial services. The use of mobile banking offers a way of lowering the cost of moving money from place to place (Donner and Tellez 2008; Anyasi and Otubu 2009).

Porteous (2006) classified mobile banking into two; firstly, transformational mobile banking, which is the provision of banking services 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 services to those already banked.

This opens a whole new world of opportunities for businesses and retailers to market their goods and services for customer. Customers today are 'on-the-go' they appreciate things that are readily available to them and banking is one example. Gone are the days when customers would line up in banks to do their banking needs. Today by a touch of a button using electronic banking they can transfer funds to and from their accounts. However, even though mobile technology is widely available amongst customers, there are proportionately few adopters for mobile banking (Deloitte 2010).

2.1.3. The origin of Mobile Banking

2.1.3.1. The origin of Mobile Banking Worldwide

Ishengoma (2011) says that the earliest mobile banking services were offered via SMS with the introduction of the first primitive smart phones with WAP support enabling the use of the mobile web. In 1999, European banks started to offer mobile banking on this platform to their customers. Mobile banking until 2010 often been performed via SMS or the Mobile Web. The M-Banking system operates in such a way that a specific sequence of SMS messages will enable the system to verify if the client has sufficient funds in his or her wallet and authorize a deposit or withdrawal transaction at the agent. Also, when depositing money, the merchant receives cash and the system credits the client's bank account or mobile wallet. In the same way the client can also withdraw money at the merchant: through exchanging SMS to provide authorization, the merchant hands the client cash and debits the merchant's account.

2.1.3.2. The Origin of Mobile Banking in Africa

Gray (2005) reports that in year 2004 alone the African continent was able to add up to fifteen million new mobile phone subscribers to its base, which is equivalent to the total number of telephone subscribers on the continent in 1996, which can be seen as growth. Boadi *et al*., (2007) and UNCTAD (2007) assert that there has been evidence of increase in the number of people subscribing for mobile phone in developed and developing countries. Accordingly ITU (2007) says that mobile phones are the most popular means of communication technology in Africa. This means that mobile banking which is among the most means of money transactions among the

banked and unbanked people is also increasing in Africa. It further said that countries like South Africa, Nigeria and Egypt have the highest mobile market growth. However, according ICT works (2010) the largest subscriber of mobile user in Africa is Nigeria with about 70 million mobile subscribers. It is also said, according to Muganda *et al*., (2008) that Nigeria is leading the mobile commerce usage in Africa.

2.1.3.3. Mobile Banking in Ethiopian Banking Industry

The electronic banking service was ushered into the Ethiopian market in 2001 when the largest state owned, Commercial Bank of Ethiopia (CBE) introduced ATM to deliver service to the local users (Gardachew 2010). After this the electronic banking service scope was further expanded to mobile banking when Dashen Bank signed an agreement with iVery, a South African E-payment technology company, for the introduction of mobile commerce in April 21, 2009. According to the agreement, iVery Payment Technologies has licensed its Gateway and MI Card E-payment processing solution to Dashen Bank. Dashen's Mod birr users can transfer 500 birr to other Mod birr users in 24 hours a day. This would make Dashen Bank the first private bank in Ethiopia to acquire E-commerce and mobile merchant transactions (Amanyehun 2011).

However, mobile banking came into full practice after several years of trials and errors as well aswait-and-see attitude by customers. Since then, mobile banking has shown a gradual growth across many various parts of Ethiopia. Despite the very high mobile penetration rate, the use and adoption of mobile banking services remains low. With the advent of new mobile technologies, such as Blackberry, iphone, Androids, etc., which serves as a catalyst, mobile banking is on the edge to draw millions of new users within the world teeming population (Agwu 2012). Many customers who are tired of the old banking systems are looking for time saving alternatives. The review of the existing literature showed that mobile banking has been widely researched in the developed and emerging economies; however, there is no research for the developing Ethiopian economy. This research is therefore believed to fill this gap.

2.1.4. Benefits of Mobile Banking

Mobile banking is one of developing mobile technique used in the commercial domain. It has combined information technology and commerce applications together. Since mobile banking was introduced, consumers have been able to use it to obtain special services 24 hours a day without having to visit the traditional bank branch for personal transactions. Short message service (SMS) is used to support mobile banking service as the main medium. Reasons for mobile and SMS usage are largely saving time, varying location and convenience (Venkatesh et al, 2003).

Mobile banking enables banks to reduce cost of courier, communication, paper works, etc. and also it reduces costs in setting up a branch and the resources to process transactions (Sunil and Durga 2013). Also banks providing mobile banking services can have competitive advantage over those banks, which are not providing this service. Goswami and Raghavendran (2009) point out, mobile banking services will enable banks to not only increase fee-based income but also enable significant cost savings, improve service quality and provide cross-selling opportunities.

Convenience, Ubiquitous access and mobility are the main benefits that mobile banking confers to customer (Laforet and Li 2005).Customers don't need to stand at the bank counter for various enquiries about their account. Customers can save their valuable time and travelling cost in reaching the bank for their financial transactions (Sunil and Durga 2013). Customers can pay their utility bills on time and save themselves from paying penalties, since alerts are received from the bank.

With respect to Mobile banking and economic development, an analysis should focus on the means by which Mobile banking can transform, or at a minimum enhance economic growth. The hope is that cell phone banking can contribute greatly to economic development through its ability to crate income generation, enabling more people to access needed financial services in a cost efficient and relevant way. Over all the rise of cell phone banking is expected to result in substantial macroeconomic benefit resulting from a five to twenty percent reduction of financial exclusion by 2020 across several developing economies (Techcentral, 2012).

2.1.4.1. Benefits of Mobile Banking to Banks

Banks can utilize the time saved by the channel migration of customers to mobile banking for expansion of business through better marketing and sales activities. Mobile banking enables banks to reduce cost of courier, communication, paper works, etc. and also it reduces costs in setting up a branch and the resources to process transactions (Sunil and Durga 2013). Also banks providing mobile banking services can have competitive advantage over those banks, which are not providing this service. It has also been found to increases customer loyalty that is using mobile banking customers need not to go in banks branches for fund transfer or for information, which creates a good relationship between banks and customers which helps in increasing loyalty towards the banks. Goswami and Raghavendran (2009) pointed out that mobile banking services will enable banks to not only increase fee-based income but also enable significant cost savings, improve service quality and provide cross-selling opportunities.

2.1.4.2. Benefits of Mobile Banking for Customers

Customers don't need to stand at the bank counter for various enquiries about their account. Customers can save their valuable time and travelling cost in reaching the bank for their financial transactions (Sunil and Durga 2013). Customers can pay their utility bills on time and save themselves from paying penalties, since alerts are received from the bank. Ubiquitous access, convenience and mobility are the main benefits that mobile banking confers to customer (Laforet and Li 2005). Delport (2010) points out that with mobile banking customers no longer need to use scarce time and resources to travel to bank branches. Nevertheless, despite the widespread proliferation of mobile phones and the numerous advantages that mobile banking offers, mobile banking is still not widely adopted (Riquelme and Rios 2010).

2.1.5. Challenges in Mobile Banking

When building, incentivizing, and managing a network of retail agents, banks must address the operational, legal, infrastructural, social, structural and economic challenges in a way that fosters a positive and consistent customer experience that will create and maintain trust in the system.

Managing the structure, as one of the challenges by financial institutions towards the provision of Mobile and Agent Banking, refers to the approach that financial institutions establish relationship with their agents. The relationship can be direct, indirect or hybrid. A direct relationship with banking agents is one in which a financial institution uses its own staff to identify and evaluate potential agents and then contract and manage them. An indirect relationship involves contracting an external management company to manage the entire process. There is also a hybrid approach in which a financial institution assumes responsibility for parts of the process, for example, selection and contracting, while a management company is contracted to oversee the day-to-day management of the agent networks, *(Mas etal.,2008).*

Building agent network is also a challenge which focuses on establishing effective agent with well-trained manpower; trusted by customers; strategically and conveniently located;and properly incentivized to follow procedures, keep sufficient float on hand, and serve customers.

When agents provide a range of services (e.g., account opening, deposits, withdrawals, bill payments, etc.) they are able to generate transaction volume and balance liquidity. An agent must maintain adequate cash and e-money float balances to meet customer cash-in/cash-out requests. If too much cash is taken in, the agent may run out of e-float and not be able to accept more deposits. If there are too many withdrawals, the agent will accumulate e-float but run out of cash. In either case, customers will get discouraged if the agent cannot provide the services they need when they need them. In addition, a secure mechanism needs to be in place to transport cash needs to and from an agent (Flaming *et al.*, 2011).

Availability and quality of infrastructure is one of the challenges which impact the mobile banking business. Interruption in services of Telecommunications due to technical or nontechnical issue and non-availability of any parallel system or alternative may cause disruption in service availability. Similarly, congestion in network may become a bottle neck in providing quality of service mobile banking user. The inconsistent availability of power supply in the country particularly in the rural area is one of the challenges for the implementation and continuous availability of mobile banking service. Therefore, utility disruptions or software or hardware failures can cause a lack of service availability and information loss. Financial Institution without

business continuity and disaster recovery planning may be on risk of non-availability of services in case of catastrophic events, power breakdowns, fire etc. and natural disasters (flooding, earthquake etc.).

2.1.6. Services Available on Mobile Banking

Mobile Banking, as defined above, includes a wide range of services. According to (Tiwari & Stephan 2007) these services may be categorized as follows:

2.1.6.1. Mobile Accounting

Tiwari & Stephan (2007) defined mobile accounting as transaction-based banking services that revolve around a standard bank account and are conducted and/or availed by mobile devices.

Not all mobile accounting services are however necessarily transaction based. Mobile accounting services may be divided into two categories to differentiate between services that are essential to operate an account and services that are essential to administer an account (Renju 2014). Moreover, additional services are required that inform a customer about his/her transactions and other activities involving their account. It is for this reason that Mobile Accounting is offered almost regularly in combination with services from the field of Mobile Financial Information.

2.1.6.1.1 Account Operation

The term Account Operation, as used in this study, refers to an activity that involves monetary transactions. Such transactions may involve an external account and/or internal account. According to (Tiwari & Stephan 2007), Mobile services that are used to operate an account are:

Money remittances: - Mobile devices may be used to instruct the bank to remit money in order to conduct one-time transactions, such as paying bills or transferring funds. This service can also include the facility to cancel an ordered remittance.

Issue standing orders: - The house bank may be entrusted with standing orders for payment of regularly recurring payments such as payment of standing payments, monthly rent or telephone bill.

Transfer funds to and from sub-accounts: - Funds from one sub-account may be transferred to another as and when needed, for instance from a savings account to checking or other types of account and vice versa (Sunil and Durga 2013).

Subscribing insurance policies: - Standardized, low-cost insurance policies like travel insurance policy may be purchased via mobile devices. This service could be particularly attractive in time-critical situations, for instance, if a bank customer has to set out on an urgent, unplanned journey, he may still be able to subscribe to a travel insurance policy offered by his house bank.

2.1.6.1.2 Account Administration

The term Account Administration refers to tactical situations, for instance, if a bank customer has to set out on an urgent, unplanned journey, he may still be able to subscribe to a travel insurance policy offered by his house bank. This may involve activities like access administration and cheque book request. Mobile Accounting services that are used to administer the account are (Tiwari & Stephan 2007, Sunil and Durga 2013):

Access administration: - Mobile devices may be used to administer the access to an account, for example to change the individual PIN or to request new transaction numbers.

Change operative accounts: - Through this service a customer can change his default operative account and do transactions using a different account. This option is attractive for customers holding several sub accounts. Funds of sub-accounts may be hereby utilized in a targeted manner without first transferring the amount to the default account.

Blocking lost cards: - Mobile non-voice telecommunication systems such as Wireless Application Protocol, Short Message Service (WAP, SMS) can be used round the clock to speedily block lost credit and debit cards irrespective of the current geographic location.

Cheque book request: - Instead of going personally to the bank, the customer can request for a cheque book to be mailed to his or her address as per the records of the bank. This saves his/ her valuable time (Sunil and Durga 2013).

Bill Payment: - for those companies which register with the bank for this service, the payment is made on request on mobile phone banking.

Change of Primary Account: - the customer has the option to change the primary account to another new account number for carrying out transactions (Sunil and Durga 2013).

2.1.6.2. Mobile Financial Information

Mobile Financial information refers to non-transaction based banking- and financial services of informational nature (Tiwari & Stephan 2007). This sub-application may be divided into two categories: Account information and Market information (Cruz et al. 2010).

2.1.6.2.1 Account Information

The term Account Information refers to information that is specific to a customer and his bank, even though it does not necessarily involve a monetary transaction. Mobile services that belong to this category are:

Balance inquiries: - mobile devices may be employed to check the current financial status of own bank or securities accounts (Sunil and Durga 2013).

List of latest transactions: - mobile devices may be used to request a list of the latest transactions performed on an account. This service works with a standard, pre-specified number of latest transactions that are reported, as and when demanded. Most of the banks provide a list of transactions.

Statement request: - unlike the request for a list of latest transactions, it generates a list of all transactions in a given period, for instance in a week or in a month. Statements may be requested either manually, as and when needed electronically. With Mobile Banking the account statements can be requested via and/or delivered on mobile devices (Cruz et al. 2010).

Transaction and balances: - the bank may be instructed to automatically alert the customer via SMS whenever transactions (credits as well as debits) exceeding a certain amount are performed on the account. In addition, a similar threshold alert may be activated for the balance status of the account. The customer may be informed via SMS whenever the balance falls below a certain

predefined level. This service may be useful to help the customer avoid unpleasant situations by not being able to honor his commitments (Cruz et al. 2010).

Threshold alerts for stock prices: - the bank may be instructed to send an alert on mobile devices, via SMS, when prices of some particular stocks fall or jump to a predefined threshold value and ask for further instructions (Suoranta and Matila 2004).

Returned cheques or cheque status: - the customer may be informed without time delay if one of her or his deposited cheques has not been honored and corrective steps are required.

Credit card information: - the customer may check anytime and anywhere the current status of his credit cards and the amount that he may utilize at that given point of time.

Branch and ATM locations: - mobile devices may help finding the nearest branch or ATM affiliated with a bank. The current location of the customer may be determined by positioning the mobile device. This service may be particularly useful while travelling (Crosman 2011).

Helpline and emergency contact: - mobile devices may be provided with content that is required in emergency situations, for instance to block a lost credit card and cheque book. The information may be either embedded in the telephone menu, for example in cooperation with a network carrier or the information may be provided on a WAP page analogue to a web page.

Information on the completion statutes of an order: - the bank may use "push" services to inform the customer via his mobile device regarding whether or not his orders could be carried out. This ensures that urgent information can be provided to the customer while on the move.

Product information and offers: - the bank can provide information about its products and new offers to a customer on the move. A customer can "pull" the information that he wishes to access. On the other hand the bank can "push" the information or offers that the customer has identified as interesting and is willing to receive.

2.1.6.2.2 Market Information

The term Market Information as opposed to Account Information refers to information with a macro scope. This information is not directly related to the customer account. It is generated either externally like exchange rates or central bank's interest rates, or internally by the individual bank

(Tiwari & Stephan 2007), for example bank-specific interest rates. The individual bank customer does not play a direct role in this process. The information may be later sorted out to cater the individual needs and preferences of a particular customer, if so desired by him, and subsequently delivered to a mobile device of his choice, or a PDA. Information in this category generally concerns: Foreign exchange rates, interest rates, Stock market news and reports and Commodity prices (For example: - Gold and raw materials).

2.1.7. Technologies Employed to Provide Mobile Banking Services

Customers can use mobile banking technologies for various banking services ranging from planning to pay their bills via their cell phones. Mobile technologies used in the mobile banking include the browser-based applications, messaging-based applications and client-based applications (Kim et al. 2009; Tiwari & Buse 2007).

2.1.7.1. SMS (Short Message Service)

On the messaging-based applications, the communication between the bank and the customer is carried out via text messages. For example, by using a registered mobile number, the customer sends a predefined command to the bank, and then uses text messages to conduct transactions with the bank. An example of messaging-based applications is the Unstructured Supplementary Service Data (USSD), which has compatibility with most mobile phones. Existing mobile banking applications based on USSD includes WIZZIT in South Africa (WIZZIT 2005), MPESA in Tanzania (Camner & Sjöblom 2009), M-PESA in South Africa (Nedbank 2010b) and FNB mobile banking (FNB 2010).

The term “SMS Banking” refers to the provision of banking and financial services via means of text messaging service, known as SMS. SMS allows the financial institutions to communicate with their customers. Almost all mobile phones have the ability to use SMS; SMS is so suitable for sending messages from banks for a number of banking operations. In order to create a query, the customer sends an SMS containing the service request to a special number which is considered for this purpose.

The customer sends a customized SMS (a command based instructed with Arabic number) to the bank with the predefined commands for each offered service. The server of the bank receives the SMS, interprets the commands and executes commands and instructions, if the request is found to be authorized. The authentication is carried out with the help of a special Mobile Banking, Personal Identification Number (MPIN). Furthermore, the requests are only accepted from a mobile phone number that has been registered as the authorized number of operating that particular bank account. With the integration made with the mobile banking server one can get all the financial and non-financial information. After completion of the whole process, the information will be gathered in the oracle database for future reference.

Dialing to *889# ⟶ Inserting the command and the PIN ⟶ Navigation of the financial or non-financial information ⟶ Logging off

2.1.7.2. Browser-Based

The browser-based application is essentially a Wireless Access Protocol (WAP)-based internet access (Kim et al. 2009). This requires a compatible mobile phone which is WAP-enabled. The mobile phone is used to access banking portals through the Internet. Brower-based customer needs to be connected to the internet to use this service. The interface is generated from the server which is transported to mobile device, and this allows the content to be displayed through the browser. This method is extremely fast depending on the server that the customer is connected to but one its disadvantages is that, it requires the subscriber (customer) to stay online all through the transaction process and could lead to higher cost for the customers.

2.1.7.3. Client-Based (Downloadable Applications)

This method requires the customers to use software installation, and this will serve as a user interface that can allow customers to use the mobile device while offline to access some basic transactions before going online.

Typing details before connecting to the internet could reduce cost. This client based application is particularly useful because it allows customers to stay offline and while preparing transaction such

as entry of account details and afterwards the transmission is made by sending out the data, this banking process conducted offline reduces online connection time and cost (Pendharkar2004).

These are mobile banking applications that the users should download on their phone. Using the properties of these applications, transactions can be encrypted completely in both source and destination. Since this software has been designed for special purposes, mobile banking application designers can optimize the applied interface for the financial transactions.

The independence of application is one of the advantages of these applications for financial institutions (Ming 2007). Once customers have downloaded the software on their phone, they can use the Mobile Banking application. In other words, the application should be compatible with the various needs and functions for a large number of mobile phones and this is expensive.

The phone should also support one of the environments such as the Microsoft Windows Mobile.

Another problem of mobile banking applications is that the customers should download the software, install it on their devices, and update its new versions, and maybe this is a new problem for some of the customers.

2.1.8. Factors affecting Mobile Banking

Many researchers have been used different theoretical frame works in the study of adopting new technological innovation. Among frameworks that have been developed based on the past studies includes, Technology Acceptance Model(TAM) (Davis, 1989), which posit the two sets of beliefs, i.e., perceived ease of use (PEOU) and perceived usefulness (PU) to determine individual's acceptance of a technology. Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB) states that, the intention of adopting and the factors affecting the use technology are attitude, subjective norms and perceived behavioral control. Whereas, the Unified Theory of Acceptance and Use of Technology (UTAUT) developed by Rogers (1995), explained how the diffusion of innovations takes place in the social system.

2.1.8.1. Technology Acceptance model (TAM)

TAM was developed by Davis (1986) to explain the computer-usage behavior. The technology acceptance model (TAM) is an information systems theory that models how users come to accept and use a technology. According to the model, in explaining the adoption of any information system, perceived ease of use (PEOU) and perceived usefulness (PU) are the two most important determinants.

Perceived usefulness: - refers to the degree to which a person that using a particular system would enhance or improve his or her job performance (Davis1 986).

Perceived ease of use: - refers to the degree to which a person that using a particular system would be free from effort (Davis 1986). According to Masrom and Hussein (2008) the adoption of whether to use an information system for a particular individual is very much dependent on the perceived usefulness and perceived ease of use of the information system.

As noted by Davis (1989), future research of Information system (System consisting of the network of all communication channels used within an organization) usage has to address the other variables which affect usefulness, ease of use and user acceptance. Consequently these two determinants may not fully explain the factors which predict the acceptance of a technology application such as mobile banking. Prior studies have extended the original TAM with added constructs such as perceived playfulness (Moon & Kim, 2001), perceived enjoyment (Koufaris, 2002) and perceived credibility (Wang et al., 2003).

Luarn and Lin (2005) extended the existing TAM model (TAM2) by adding four new constructs to understand mobile banking adoption in Taiwan. These are Perceived credibility, Perceived self-efficacy, perceived cost and perceived risk Perceived Credibility: In mobile banking context perceived credibility is defined as one's judgment on the privacy and security issues of mobile banking (Ba & Pavlou, 2002).Perceived credibility relies on information and reputation as defined by others. Luran & Lin (2005) note the correlation between perceived credibility and the readiness to adopt mobile banking.

Perceived Self-efficacy: The concept of perceived self-efficacy is concerned with judgments of how well one can execute courses of action required to deal with prospective situations (Bandura, 1982). The self-efficacy of mobile banking is defined as a judgment of one's ability to use a mobile

banking service (Luarn & Lin, 2005) Self-efficacy could include the knowledge, ability and skills needed to use the new Information Technology.

Perceived Cost: The degree to which an individual views that utilizing mobile banking will incur cost is defined as perceived cost (Luran & Lin 2005). These costs could typically include the cost of the mobile devise, network charges, and transaction charges for bank costs as well as costs for data sent via the network infrastructure

Perceived risk: Perceived risk is viewed as a hesitation regarding the result (good or bad) regarding using a product/service. It is defined as a combination of uncertainty plus seriousness of outcome involved and the expectation of losses associated with purchase acts as an inhibitor to purchase behavior (Bauer, 1960).

Uses of TAM 2 MODELS

Understanding individual acceptance and use of Information and Communication Technology ICT is one of the most mature streams of information systems research. In Information Technology and Information System research, numerous theories are used to understand users' adoption of new technologies. Various models were developed including the Innovation Diffusion Theory, Theory of Reasoned Action, Theory of Planned Behavior, Technology Acceptance Model, and recently, the Unified Theory of Acceptance and Use of Technology. Each of these models has sought to identify the factors which influence consumers' intention or actual use of information technology. TMA and TAM2 models provides a model to assess the likelihood of adoption for a new technology (Venkatesh *et al.*, 2003)

2.1.8.2. The Theory of reasoned action (TRA)

The original framework of this model was developed by Fishbein and Ajzen (1975). TRA explained that the actual behavior follows from behavioral intention and that behavioral intention is formed by one's attitude towards behavior and subjective norm (Masrom and Hussein, 2008).

Fishbein and Ajzen (1975) defined attitude towards behavior as the individual's feelings about performing behavior. On the other hand, subjective norm was explained as an individual's perception of whether the behavior should be performed. This would be driven by the motivation

that an individual has to comply with opinions from people who are important to the individual (Fishbein & Ajzen 1975).

Behavioral intentions were assumed to indicate how hard people would be willing to try, and how much of an effort they would be planning to exert, in order to perform the behavior. As a general rule, the stronger the intention to engage in behavior, the more likely should be its performance (Sheppard et al. 1988). Subsequent to the original TRA theory, Ajzen (1991) extended the TRA theory establishing theory of planned behavior (TPB).

2.1.8.3. Theory of planned behavior (TPB)

The Theory of Planned Behavior is derived from the Theory of Reasoned Action (TRA).TPB added a perceived behavioral control construct to the TRA. Ajzen (1991) argued that behavioral intention can find expression in behavior only if the behavior in question is under volitional control, (e.g. if the person can decide at will to perform or not to perform the behavior). In many instances behavior would be influenced by non-motivational factors such as availability of resources (Ajzen 1991).

In TPB (Ajzen 1985) a third factor called perceived behavioral control is added. It suggests that the actual behavior of a person is influenced by behavioral intention, and it is influenced by either attitude, subjective norms or perceived behavioral control, or all the factors mentioned above. Attitude refers to the degree to which the person has a favorable or unfavorable evaluation of the behavior in the study, subjective norm refers to the perceived social pressure to perform or not to perform the behavior while perceived behavioral control refers to the individual's belief in the ease to execute behavior (Ajzen 1985).

2.1.8.4. Unified Theory of Acceptance and Use of Technology (UTAUT)

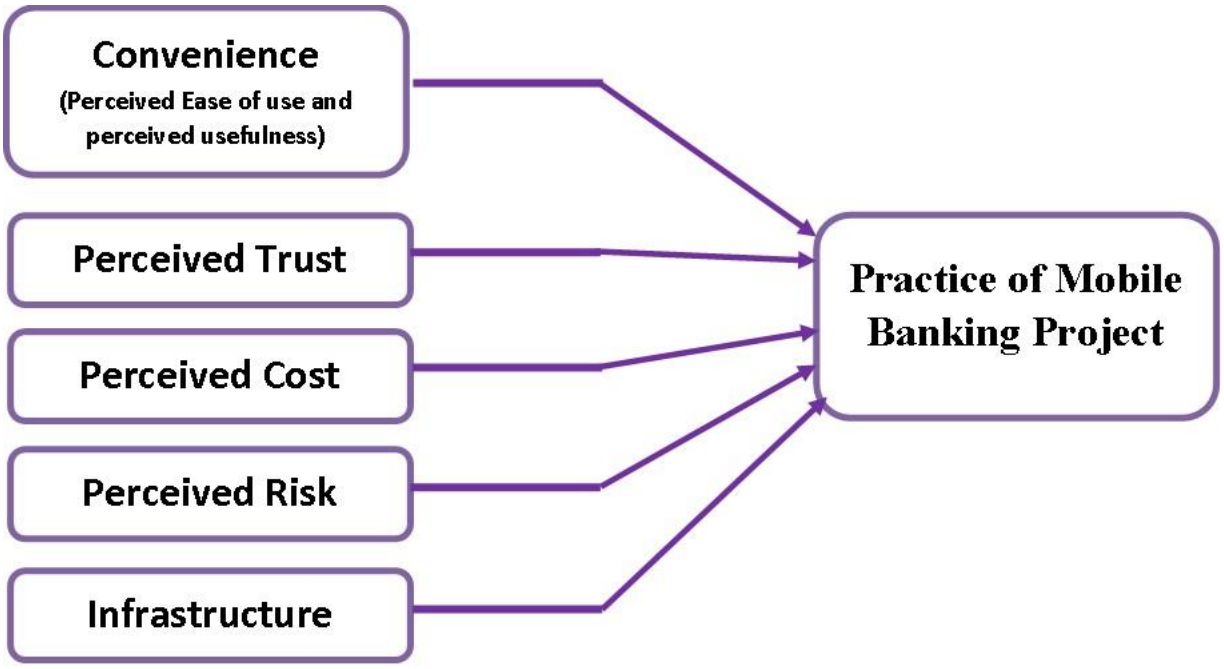
The Unified Theory of Acceptance and Use of Technology (UTAUT) was developed through consolidation of eight models that previous research had employed to explain IS usage behavior. To develop the theory, (Venkatesh*et al*. 2003) firstly reviewed user acceptance literature. This review included the previously discussed theories, TRA, and TAM as well as the motivational model, theory of planned behavior (TPB).

This analysis illustrated that seven constructs appeared to be significant direct determinants of intention or usage (performance expectancy, effort expectancy, and social influence, facilitating conditions, attitude toward using technology, self-efficacy, and anxiety). Of these, Venkatesh *et al*., (2003) found that the first four constructs played a significant role as direct determinants of user acceptance and usage behavior. Afterwards, a unified model UTAUT was formulated by integrating different elements across the eight models. Using the original data from the aforementioned theories, the UTAUT model outperformed the eight individual models. A subsequent empirical validation using data gathered from two additional organizations confirmed the theory (Venkatesh, *et al*., 2003).

2.1.9. The Conceptual Framework

The conceptual framework shows the variables used in the study that influence the practice of mobile banking service. Accordingly, the study was made using variables: convenience (perceived ease of use and perceived usefulness) perceived trust, perceived cost, perceived risk and infrastructure (Brown *et al.*, 2003; Walker, 2004) to look at their level of influence on the practice of mobile banking service in the Commercial Bank of Ethiopia.

Figure 1: The conceptual framework



Source: *Self-constructed based on TAM2 model.*

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Research Design

In order to achieve the objectives of this study, to describe the assessment of mobile banking practice and its challenge, the research used a descriptive research design. Because, descriptive research help the study describe some aspect of a phenomenon, i.e. the status of a given phenomenon and help understand a topic. It aims to describe the state of affairs as it exists and interpret what is (Kothari, 2004). Accordingly, the study is a descriptive type because it describes the practice of mobile banking and its challenges in Commercial Bank of Ethiopia based on the theories drawn from the literature.

3.2. Research Approach

Both qualitative and quantitative research approaches have been employed. The study used a qualitative research approach to gain a deeper understanding and describe a problem as this approach basically concerned with subjective assessment of attitudes, opinions and behavior (Kothari, 2004). In addition the study has used a quantitative research approach to gather, analyze, and measure statistical data based on measurements of quantity. It is applicable to phenomena that can be expressed in terms of quantity (Kothari, 2004). In a quantitative research approach, a number of objects selected and studied in order to increase the ability to draw general conclusions. The researcher, therefore, used a combined quantitative and qualitative (mixed) approach.

3.3. Types and Sources of Data

The study largely depends on primary data, which was collected through survey method by using structured questionnaire arranged in standardized 5-point Likert's scale. In addition; secondary data that are relevant document on mobile banking which is mentioned in the literature were referred as deemed necessary.

3.4. Data Collection Procedure and Instruments

A paper based structured survey questionnaire was prepared and distributed to the selected respondents to generate the primary data of the study. So, this structured questionnaire was used as a tool of data collection.

The self-administered questionnaire has been used as the main tool for data collection to ensure that the customers' response is kept confidential. This would enhance the respondents confident to approach questions freely and it also helps the research to get desirable information. The semi-structured interview questions was also prepared and conducted by the researcher with three e-payment managers at the center.

3.5. Population of the Study

According to Zikmund (2003) a population is any complete group of people, companies, hospitals, stores, college students or the like that share some set of characteristics. For the purposes of this study, the population is individuals who have an account, both users and non-users of mobile banking service, at Commercial Bank of Ethiopia, South Addis Ababa District grade four branches. The population includes not only active mobile banking customers but also addresses those customers who have subscribed for the service but yet not using the service. This is because, it would help the study to get the root cause or the challenge behind using mobile banking at Commercial Bank of Ethiopia. Accordingly, as per the information obtained from the bank as of June 2018, there are about 1.5 million bank customers including those mobile banking subscribers/customers in the above branhes and this is the total population of the study.

3.6. Sample Size and Sampling Technique

The basic idea of sampling is that by selecting some of the elements in a population, conclusions can be drawn about the entire population (Zikmund, 2003). From the total population size of 1.5 million of mobile banking users and non-user customers in CBE South Addis Ababa District, 399 sample respondents were taken from customers at grade four branches i.e., 15 branches in number

(CBE, 2018) based on Yemane's simplified formula to calculate sample sizes, which is the most ideal method to use when the target population is large. The study focused in only grade four branches, because, large number of customers including mobile banking customers are existed on those branches and they relatively have customers stayed for long. In addition, the existence of time and cost limitation was forced the study to focus on some specific target groups. Accordingly, the researcher has used convenience sampling technique, non-probability sampling, to select the respondents, because it was difficult to access all customers of the bank with in specific period of time. The given estimated population proportion of 0.05 margins of error and 95% confidence level.

Yamane (1967:886) cited in Israel (1992) which is revised on April 2009 and again reviewed on June 2012 provides a simplified formula to calculate sample sizes.

Assumptions

A95% confidence level, and e = ±5%

$$n = \frac{N}{1 + N (e)^2}$$

Where:-

n = the sample size

N = the population size

e = the level of precision (Sampling error)

$$n = \frac{N}{1 + N (e)^2} = \frac{1.5 \text{ Million}}{1+1.5 \text{ mil } (0.05) \text{ ^2}} = 399$$

In addition to the above technique, the study also used semi structured interview to get information from managers and employees of the bank at selected e-payment department that are assumed to have close information on the service.

3.7. Data Analysis Techniques

Descriptive statistic, analysis was conducted on the demographics data. The data collected from the returned questionnaires are captured, sorted, coded and computed using Excel spreadsheet and Statistical Package for Social Sciences (SPSS) software for analysis. The data is sorted to group questions according to applicable constructs under test and the statistical analysis was conducted on the data. The appropriate statistical analysis such as frequencies, mean and standard deviation analysis was employed according to respective objectives and descriptions. Moreover, t-test was also made in order to best address the research objectives. The analyzed data is presented using tables. In the process of data analysis, data was processed on the basis of Five-point Likert-scale. In addition, analysis of the interview result is made using thematic content analysis method, which is a most common method used to find common patterns across a data set (Mike, 2016).

3.8. Validity and Reliability Tests

The researcher adopted structured questionnaires, interviews, document reviews and complied secondary data from different sources. Merging and converging of research data collected from different sources and techniques can eliminate any biases in the study and increases reliability of the findings. Hence the researcher used data triangulation as a one way of confirming validity and reliability The researcher also believes that this study is reliable in consideration of respondents‘ profile in the assessment of project finance

Validity

The study is conducted using the instrument other researchers used in other related studies of course with some modification to fit the purpose of the study. In addition, the questions are pretested with managers and employees of the bank at selected e-payment department that are assumed to have close information on mobile banking service and some modifications were received. Jargons and confusing words, double meaning words were rectified. Moreover, relevancy of the questionnaires was confirmed.

Reliability

According to Ho (2006), the reliability of a measuring instrument is defined as its ability to consistently measure the phenomenon it is designed to measure. Cornbach‘s alpha is a coefficient of reliability used to measure the internal consistency of a scale; represented as a number between 0 and 1. Cronbach alpha is used to determine the consistency of scales used to measure study variables. The internal consistency reliability is higher if the Cronbanch's alpha is closer to 1. The most common techniques used in the literature to assess the scale‘s reliability and stability is use of Cronbach Alpha Statistics. As tabulated in table 3.1, all the Cronbach Alpha coefficients for the variables under the study were above 0.7 implying that the scale used to measure the practice of mobile banking were consistent and hence reliable.

Table 3.1 Reliability test

No.	Description of Factors	No. of Items in the Factors	Cronbach's Alpha
1	CONVENIENCE (Perceived ease of use and perceived usefulness)	6	0.845
2	TRUST	6	0.769
3	RISK	5	0.794
4	COST	5	0.856
5	INFRASTRUCTURE	3	0.795

CHAPTER FOUR: RESULTS AND DISCUSSION

4.1. Response Rate

The study prepared and circulated approximately 330 questionnaires and received a total of 323 responses. Of these, ten (10) responses had to be discarded due to invalid or incomplete data entries. Thus the sample comprising 313 respondents was used for analysis. This exceeds the minimum required sample size of 306 to achieve a 95% confidence level for a population greater than 500,000 (Zikmund, 2003, p. 429) and response rate is satisfactory to get meaningful results.

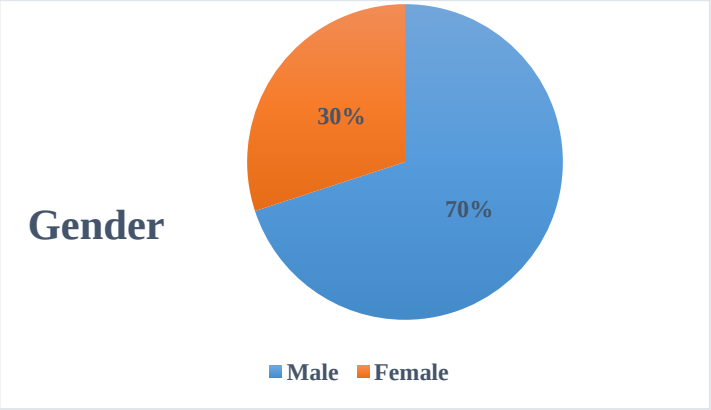
4.2. Demographics Characteristics

4.2.1. Age and Gender

The highest percentage of respondents were between the ages of 20 and 30 years (75%), the second largest age group are between 31 and 40 years (24%) and the last group are between 41 and 50 years (1%). As per the bank's procedure an applicant needs to be 18 years old to have a bank account without their parents' and concerned authorized government organs' consent; accordingly the study result shows all respondents are above the required age group. With regard to respondents gender, the majority 219 (70%) of them are male and the remaining 94 respondents (30%) are female as shown in the chart below.

Table 4.1: Age Range of Respondents

		Frequency	Percent
Valid	20-30	235	75.1
	31-40	75	24.0
	41-50	3	1.0
	Total	313	100.0



4.2.2. Level of Education

A high percentage of the respondents (78.3%) were university graduates; this was good for results of the study as the majority of respondents used to have higher level of education. Table 4.2 shows that the remaining 9.9%, 6.1%, and 1.3% of respondents have technical and vocational, secondary, and primary level of educational achievement respectively. Whereas the remaining 4.5% of respondents have other level of educational achievement as clearly shown in the table.

Table 4.2: Level of Education

Level		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary	4	1.3	1.3	1.3
	Secondary	19	6.1	6.1	7.3
	Technical and Vocational	31	9.9	9.9	17.3
	University	245	78.3	78.3	95.5
	Other	14	4.5	4.5	100.0
	Total	313	100.0	100.0	

Source: SPSS Output

4.2.3. Mobile Banking Subscribers and Users

To determine whether the respondents were subscribed and currently using a mobile banking service, they were asked to indicate whether they are subscribed for mobile banking service at the bank and currently using the service. Two categories of answer options were available for the respondent to choose the applicable answer i.e., ‘Yes’ or ‘No’. Accordingly, out of the total respondents 86.9% were subscribed for the service where the remaining 13.1% are not subscribed. However, 85% of the respondents are currently using the mobile banking service at CBE where the remaining 15% of them are not currently using.

Table: 4.3 Mobile Banking Subscribers and Users

Are you subscribed for MB?		Frequency	Percent	Are using MB?		Frequency	Percent
Valid	Yes	272	86.9	Valid	Yes	266	85
	No	41	13.1		No	47	15
	Total	313	100		Total	313	100

4.3. Descriptive Analysis and Results

Descriptive statistic (such as mean and frequencies) analysis was conducted on the demographics data. The data collected from the returned questionnaires were captured onto an Excel spreadsheet for analysis. The data was sorted to group questions according to applicable constructs under test and statistical analysis was conducted on the data. In this study the dependent variable is categorized into two groups; a group of users and non-users. Accordingly, the question within the questionnaire was included to enable the categorization of respondents into this groups.

T-Test was also used to compare the means of the two groups to test for statistical significance at 0.05 level. A combination of independent variables, which included: Convenience (perceived usefulness and perceived ease of use), perceived risk, perceived trust, perceived cost and infrastructure was tested and analyzed to establish the best predictor.

The discussion of results are made by taking mean scores of the questions and responses of respondents under each variables and results are discussed in the following section. Mean values have been interpreted by adopting the criteria suggested by (Scot, 1999). He suggested that, for Likert type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), interpretation should be like; mean up to 2.8 he suggested us disagree, from 2.9 to 3.2 means neutral or neither disagree nor agree and mean above 3.2 considered as an Agree. In the case of this study, the means scores are multiplied by the number of question used to measure the construct/variable.

4.3.1. Convenience (Perceived Usefulness and Perceived Ease of Use)

The number questions used to measure the convenience i.e., perceived usefulness and perceived ease of use are six. Table 4.4 shows that respondents currently using mobile banking had the highest Mean (4.22) on the convenience construct, which means they mostly 'agreed' that mobile banking is convenient. Similarly, respondents not using mobile banking are also 'agreed' that mobile banking is convenient (with a Mean score of 3.36). The current users of mobile banking (85% of respondents) and not using mobile banking (15% of respondents) perceived that mobile banking is convenient i.e., easy to use and useful. Therefore, it implies that the perception of usefulness was not based on actual utilization rather on the behavioral intention of the respondents.

Table 4.4: Convenience Group Statistics

	Are you currently using mobile banking service?	N	Mean	Std. Deviation
Convenience	Yes	266	4.22	3.54515
	No	47	3.36	3.74931

Source: SPPS output

The obtained p value on t-test of convenience is .000, which is less than 5% as shown on Table 4.5 below. This means that there is a significant difference between the means at 5% significance level and it implies that there is a significant effect for convenience on the practice of mobile banking.

Table 4.5: Independent Samples Test

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Convenience	Equal variances assumed	9.114	311	.000	5.15685	.56584	4.04351	6.27020

Source: SPPS output

Davis (1989) defines PU as the degree to which a person believes that using a particular system will enhance his or her job performance. In addition, Venkatesh *et al*., (2003) confirmed that PEOU is a determinant of the adoption of mobile banking. The functionality of the mobile phone, screen size and type of keypad can be considered to be contributing factors to ease of use (Kim *et al*., 2009; Walker, 2004). This is therefore, Mobile banking gives a user convenience; an opportunity to conduct banking transactions anywhere at any time. As a result it was expected for convenience to have a significant effect on the user's practice of mobile banking at Commercial Bank of Ethiopia. The SPSS t-test results (Table 4.5) showed that the convenience factor had a significant effect on the adoption of mobile banking. Furthermore, the descriptive results (Table 4.4) showed that the mean of current users felt that mobile banking is useful, which makes the result consistent with the literatures.

4.3.2. Perceived Trust

Table 4.6 shows that the current users of mobile banking (85% of respondents) felt that the bank has the necessary trust to render the mobile banking service. The current users of mobile banking has the mean score of 3.90 on customer's trust, which means, the response was almost 'agreed' that the bank have trust to render the service. Likewise, respondents not using mobile banking has also a mean score of 3.50, which means the response was 'agree' that the bank has trust to render the service.

Table 4.6: Trust Group Statistics

	Are you currently using mobile banking service?	N	Mean	Std. Deviation	Std. Error Mean
Trust	Yes	266	3.90	3.57947	.21947
	No	47	3.50	3.19936	.46667

Source: SPPS output

The obtained P value of trust is .000, which is less than 5% as shown on Table 4.7 below. This means that there is a significant difference between means at 5% level of significance and it implies that, there is a main effect for trust on the practice of mobile banking at Commercial Bank of Ethiopia.

Table 4.7: Independent Samples Test

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Perceived Trust	Equal variances assumed	4.375	311	.000	2.44065	.55788	1.34294	3.53835

Source: SPPS output

The literatures highlights that the higher levels of trust in mobile banking service providers, like banks, will lead to a greater intention on the part of the user to engage in mobile banking transactions (Gu, Lee & Suh, 2009; Lee *et al*., 2007). The SPSS t-test results on Table 4.7 showed that the trust factor had a significant effect on the adoption of mobile banking at the CBE. The respondents who are currently using mobile banking and not users are felt that the bank is trustworthy at different level as shown on the Table 4.6 above. In Kim, Chung and Lee (2010), trust was defined as a feeling of security and willingness to depend on someone or something. Accordingly, the literature therefore reinforces the findings of the analysis and that customers' trust on the bank is likely to influence the practice of mobile banking in the case of CBE.

4.3.3. Perceived Risk

Five questions were asked to establish the perception of respondents with regard to risk of mobile banking. In Table 4.8 the results shows that there is a significant difference between the means for those currently using mobile banking has a Mean (4.45) and not using mobile banking has a Mean score of (2.01). In addition, respondents currently using mobile banking (85% of respondents) perceived that the mobile banking is not risky. While, respondents not using mobile banking (15% of respondents) perceived that mobile banking is risky.

Table 4.8: Risk Group Statistics

	Are you currently using mobile banking service?	N	Mean	Std. Deviation	Std. Error Mean
Perceived Risk	Yes	266	4.45	1.72227	.10560
	No	47	2.01	2.63261	.38401

Source: SPPS output

The obtained P value on t-test of perceived risk is .000 (Table 4.9). This means that there is a significant difference between mean score at 5% significance level. This implies there is a significant effect for perceived risk on practice of mobile banking.

Table 4.9: Independent Samples Test

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Perceived Risk	Equal variances assumed	40.918	311	.000	12.20309	.29823	11.61628	12.78990

Source: SPPS output

Brown *et al.,* (2003) found perceived risk to be a significant factor affecting mobile banking practice. The SPSS t-test results on the Table 4.9 above, showed that the perceived risk had a significant effect on the adoption of mobile banking at CBE. Respondents who are currently using mobile banking service have agreed that the risk factor has no effect on the mobile banking service with mean score of 4.45. These results are in contrast to the views described in literature. However, respondents who are not using mobile banking felt that there is risk on the mobile banking service, which is in line with the sated literature.

In study by Lee and Chung (2009) to investigate the role that trust plays in assessing the degree of satisfaction of mobile banking users, they argue that as mobile banking involves processing banking tasks without having face-to-face contact with bank staff, it involves risk and uncertainty. Based on this ground, the study assumes that it is because of these justification that respondents not using mobile banking are felt the service is riskier. Hence to eliminate risk and uncertainty, improvement is required in customers' trust levels.

4.3.4. Perceived Cost

Questions were asked to establish the feeling of respondents on the impact of cost for the practice of mobile banking service. Accordingly, Table 4.10 highlights that the respondents who are currently using mobile banking i.e., 85% of respondents felt that mobile banking is not costly with mean score of 3.60 on the cost construct, which means that they mostly 'agreed' that mobile banking is not costly. However, respondents not using mobile banking i.e., 15% has a means score of 2.60, which means that they felt that mobile banking is costly.

Table 4.10: Cost Group Statistics

	Are you currently using mobile banking service?	N	Mean	Std. Deviation	Std. Error Mean
Cost	Yes	266	3.60	3.90856	.23965
	No	47	2.60	3.20658	.46773

Source: SPPS output

The obtained p value of perceived cost is .000 as shown on Table 4.11. This means that there is significant difference between means at 5% level. This implies there is a statistically significant effect for the cost on the practice of mobile banking at Commercial Bank of Ethiopia.

Table 4.11: Independent Samples Test

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Perceived Cost	Equal variances assumed	8.171	311	.000	4.92985	.60330	3.74278	6.11692

Source: SPPS output

According to a study by Wu and Wang (2005), perceived cost had a significant effect on the adoption of mobile banking. However, the result of the study revealed that perceived cost has not significant effect for users of mobile banking service in contrary to the theory stated earlier, and respondents not using mobile banking perceives that the mobile banking service is costly, which is in line with the sated literature. The SPSS t-test results on Table 4.11 above showed that the cost factor had a significant effect on the practice of mobile banking at Commercial Bank of Ethiopia. The literature therefore reinforces the findings of the analysis that the perceived cost is likely to influence the practice of mobile banking at the CBE with probability value less that 5%.

4.3.5. Infrastructure

Table 4.12 shows that respondents currently using mobile banking had a mean score of 1.46 on the infrastructure construct, which means they mostly 'disagreed' that the infrastructure is not good to use mobile banking service. However, respondents not using mobile banking i.e., 15% has a means score of 1.66, which means that they were 'neutral' on whether mobile banking is affected by infrastructure or not.

Table 4.12: Infrastructure Group Statistics

	Are you currently using mobile banking service?	N	Mean	Std. Deviation	Std. Error Mean
Infrastructure	Yes	266	1.46	1.10343	.06766
	No	47	1.66	1.55325	.22656

Source: SPPS output

The obtained p value on t-test of infrastructure is .000, which is less than 5% as shown on Table 4.13 below. This means that there is a significant difference between the means at 5% significance level and it implies that there is a significant effect for infrastructure on the practice of mobile banking.

Table 4.13: Independent Samples Test

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Infrastructure	Equal variances assumed	-3.206	311	.001	-.59902	.18684	-.96665	-.23140

Source: SPPS output

(Mckinsey and company 2012, Ciuci Consulting 2014) highlights that the current reality in many developing countries mobile money service providers have not reached a scale high enough for the growth and development of the mobile money technology. The poor infrastructure provision of those countries is cited as one of the major reasons. This implies that infrastructure to be a significant factor affecting mobile banking practice. Accordingly, the SPSS t-test results of the study on Table 4.13 showed that infrastructure had a significant effect on mobile banking practice at CBE, which is in line with the above literature. Both respondents, who are currently using mobile banking and not users are felt that the country's network and electric power infrastructure is weak and it indicates that network coverage in Ethiopia is inadequate that affects the mobile

banking service as shown on the Table 4.12 above. Accordingly, the literature therefore reinforces the findings of the analysis and weak infrastructure is likely to influence the practice of mobile banking in the case of CBE.

4.4. Interview Analysis

Question: How do factors like Convenience, Trust, Cost, Risk and Infrastructure affect the practice of mobile banking service in CBE? And what should be done to improve mobile banking service in the bank?

All respondents have mentioned lack of awareness as a main reason for the current low level mobile banking users, not only in the bank but also in the country as a whole. According to the respondents the majority of retail customers of the bank do not aware about the use and advantages of mobile banking service despite cherished works have been done so far. They have also added that based on the assessments conducted by the bank on e-payment services awareness gap has identified as a main challenge although improvements are being registered. In addition, the cultural influence of the community to resist changes has also its own share in the low performance of mobile banking practice.

According to the respondents, the manifestation of awareness gap on the mobile banking service is highly linked with the factors mentioned here in above. Since most customers do not aware, they perceive the mobile banking service as risky and costly, especially those customers who are currently not using the service. On the other hand, customers who are currently using mobile banking service in the bank usually states that, the infrastructure problem of the country i.e. frequent power interruption and network failure discourages then not to use the service even after subscription. According, to some respondents the poor network problem exposed customers to spend much of their time on their mobile to get the service and even it makes them to effect double payment while they are tying the network now and then.

Finally, respondents have suggested that, to change this scenario the bank should aggressively work on awareness creation by designing different programs which will address the entire retail customers. In addition, they've added that all branches of the bank should strongly work on awareness creation through their customer service officers, a dedicated staff for the entire customer

service, while opening an account for new customers and while existing customer approach the branch to get other services. As per their opinion, the strong management follow up, at all level, would also have inevitable role to play in changing this scenario.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter synthesizes the findings of the research. It reviews the research background and objectives, summarizes the research findings and make conclusion. Based on the outlined conclusions the chapter presents relevant recommendations for concerned organs.

5.1. Summary

The research revealed that regarding the variable of convenience and trust both respondents who are users and non-users of mobile banking services perceived that it is convenient or easy to use and useful and trusty respectively, even though the degree of preciseness is more for users of mobile banking. According to the variable of risk and cost, respondents who are currently using mobile banking perceived that both variable doesn't affect to practice or use the service. However, those respondents who are not using considers those variables as a barrier to use the service. Finally regarding infrastructure, respondents indicated that the infrastructure problem affects to use the service.

5.2. Conclusion

- Convenience has a significant impact on the practice of mobile banking at CBE. Customers at the CBE will adopt mobile banking services when the value and benefit of mobile banking is evident and it is perceived to be easy to use. The current users of mobile banking services perceived mobile banking as convenient.
- Cost is not significant factor influencing the practice of mobile banking at CBE, therefore, cost is no long used as a barrier for the practice of mobile banking service in the bank. However, it is the one of the main influencing factor for customers who are not using the mobile service.
- Both customers who are currently using and not using mobile banking services perceived that the bank is used to be trustworthy to provide the service and customer's trust on the bank has a direct effect on the customer's loyalty.
- Perceived risk had no effect on the practice of mobile banking services at CBE for customers who are currently using mobile banking service. However, customers not using

mobile banking service felt that the service is risky.

- Infrastructure has a significant factor which influences the practice of mobile banking.

5.3. Recommendation

- The bank needs to continuously strive to simplify the mobile banking application used for transactions. The marketing drive should focus on demonstrating the simplicity, usefulness and cost benefit of using mobile banking.
- The e-payment department of the bank needs to make an effort to further build up trust with customers and need to continuously demonstrate their ability to provide secure value-adding services, their intention to be fair and honest with regard to customers' requirements, and demonstrate good intent in terms of empowering customers.
- All branches of the bank needs to ensure that the service is being delivered as per the promises made during marketing initiatives. Considering that customer's trust has an effect on customer loyalty.
- The bank should design awareness creation sessions regarding mobile banking tailored to the customers who are not using the mobile banking service.
- The bank should consider the existence of large number of mobile phones holding customers in the bank as a great opportunity and strive to reach the service to all customers by directing more effort on educating communities, especially potential customers at the CBE, about the functionality, safety and benefits of mobile banking.
- The bank in collaboration with the concerned government organs: like Ethio-Telecom and EELPA should work on the infrastructure to reduce the frequent network failure and electric power interruption, which adversely affects the practice of mobile banking service.

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APPENDIX

Addis Ababa University

School of Commerce

Masters of Project Management

Questionnaire to be filled by respondents

Dear Respondents:

First of all, I would like to express my earnest appreciation for your generous time, honest and prompt responses.

The title of this thesis is "Assessment of mobile banking practice and its challenges in case of Commercial Bank of Ethiopia, SAAD"

Please note that your views in this questionnaire shall not be, in any way, used for any other purpose rather than the advancement of this study. You are therefore assured that your views on the content of this questionnaire shall not be used in any way that might cause damage to your reputation as an individual or otherwise, integrity, emotions, or indeed professional conduct as the information provided will be treated with high level of confidentiality. Individual responses will not be identifiable as they will be treated in aggregate when reporting the findings.

I would like to thank you in advance, for completing this questionnaire and assisting me in my research.

Instructions

Please tick (√) in appropriate boxes as provided

Section A: Personal Details

1. Gender? Male ☐ Female ☐
2. Age range? 20 -30 ☐ 30-40 ☐ 40 – 50 ☐ >50 ☐
3. Level of education completed?

Primary ☐ Secondary ☐ Technical & Vocational ☐ University ☐

Other, Please specify _____

4. Are you subscribed to mobile banking service?

Yes ☐ No ☐

If No; Why? _____

5. Are you currently using mobile banking services?

Yes ☐ No ☐

If No; Why? _____

Section B: Factors Affecting Mobile Banking Practice

Please circle the appropriate number to indicate the level of your agreement or disagreement with the following statements on a scale of 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Questions	***Strongly Disagree***	***Disagree***	***Neutral***	***Agree***	***Strongly Agree***
CONVENIENCE (Perceived ease of use and perceived usefulness)					
Mobile banking service is not complex so it doesn't take me time to learn how to use it.					
Using mobile banking enables me to do my banking transactions quicker as it is convenient and easiest for me to use.					
Mobile banking is faster than visiting a bank or using phone banking because it is more accessible and less time consuming than other banking options.					
By using mobile banking, I am able to access my fund any time I want to.					
I think that learning to use mobile banking would be easy.					
Overall, I think that using mobile banking is advantageous.					
TRUST					
I believe the bank is trustworthy and has the ability to provide mobile banking service effectively.					
Mobile banking service performs well and process payments correctly.					
Mobile banking is reliable so I'm not afraid that my personal transaction detail would be leaked during message passing.					
If I lose a mobile phone as a mobile banking user, in the meantime I would not afraid that I lose my money as well.					
I believe the bank keeps its promises and commitments.					
The bank makes good-faith efforts to address most customer concerns.					
RISK					

A security concern doesn't prevent me from checking my account using mobile phone.					
When I'm using mobile banking services, I don't think that someone misuse my personal information					
When making a mobile banking transaction, I don't think that I will lose money.					
I feel safe in using mobile banking, because I think people can't access my account.					
I would feel totally safe while providing personal information over mobile banking.					
COST					
When transaction error occurs due to system failure, I can get compensation from the bank.					
I think the equipment cost of mobile banking is cheap and I believe I could be able to get service with my current cell phone.					
Mobile banking could save me transaction cost as it enable me get all services on hand.					
Mobile banking is important since the transaction costs of payments are greatly reduced.					
M-banking is a cost effective way to provide banking services to the customers.					
INFRASTRUCTURE					
Mobile banking service performs well when there is a network problem.					
The frequent power interruption doesn't discourage me to use mobile banking.					
I believe the current infrastructure development of the country is enough to use mobile banking service.					

Interview questions

- How do factors like Convenience, Trust, Cost, Risk and Infrastructure affect the practice of mobile banking service in CBE? And what should be done to improve mobile banking service in the bank?

Questionnaire in Amharic

<u>በመላሾች የሚሞላ መጠይቅ</u>

ውድ ምላሽ ሰጪዎች

በቅድሚያ ውድ ጊዜያችሁን ሰውታችሁ ትክክለኛ ምላሽ ስለሰጣችሁኝ እና ለጥናቱ ስለረዳችሁኝ ከልብ የሆነ ምስጋናዬን አቀርባለሁ::

የምትሰጡኝ ምላሽ ለትምህርት አላማ የሚውል ምስጥራዊ የሆነና ለሌላ አላማ የማይውል ወይም የማንጠቀም በመሆኑ የምሰጡት ምላሽ ምንም አይነት ጉዳት አያስከትልም፡፡ በመሆኑም ይህ ምላሽ በአቃጠላይ እንጂ በተናጥል የሚወሰድ አይደለም፡፡

<u>መመሪያዎች</u>

እባክዎን ከዚህ በታች ለመምረጥ በተዘጋጀው ሳጥን ውስጥ ምልክት ያድርጉ

ክፍል 1: የግል መረጃ

1. **ፆታ ወንድ** ☐ **ሴት**☐
2. **እድሜ** 20-30 ☐ 30-40 ☐ 40-50 ☐ >50☐
3. **የትምህርት መረጃ**

   1ኛ ደረጃ ☐ **2ኛ ደረጃ**☐ **የቴክኒክና ሙያ** ☐ **ዩኒቨርሲቲ**☐

   ሌላ ካለ_____
4. **የሞባይል ባንኪንግ ተጠቃሚ ኖት**

   አዎ ☐ **አይ** ☐

   አይ ካሉ ለምን_____

5. **በአሁኑ ሰዓት የሞባይል ባንኪንግ ተጠቃሚ ኖት**

   አዎ ☐ **አይ** ☐

   አይ ካሉ ለምን_____

ክፍል 2: የሞባይል ባንኪንግ ተፅህኖ ሊያሳድሩ የሚችሉ ምክንያቶች

እባክዎን ትክክለኛውን ሀሳብዎን የመስማማት ወይም ያለመስማማት ደረጃዎችን ለመግለፅ የሚከተሉትን በማንበብ የመለኪያ ቁጥር 1= እጅግ በጣም አልስማማም 2 = አልስማማም 3 = ገለልተኛ 4 = እስማማለው 5 = እጅግ በጣም እስማማለው በማለት ምልክት ያድርጉ

ጥያቄዎች	እጅግ በጣም አልስማማም	አልስማማም	ገለልተኛ	እስማማለው	እጅግ በጣም እስማማለው
የአጠቃቀም ቀላልነትና ጠቃሚነት/ CONVENIENCE					
ሞባይል ባንኪንግ አገልግሎት ውስብስብ ባለመሆኑ ለመማርና ለመጠቀም ጊዜ አይፈጅም።					
ሞባይል ባንኪንግ ለአጠቃቀም ምቹ በመሆኑ የባንክ አገልግሎቶች ፈጣን እንዲሆን አድርጎልኛል።					
ሞባይል ባንኪንግ በቀላሉ ተደራሽና ጊዜ ቆጣቢ በመሆኑ ባንክ ቤት ሄዶ ከመገልገል በበለጠ ፈጣን ነው።					
ሞባይል ባንኪንግ በመጠቀም ገንዘቤን በፈለኩበት ጊዜና ሰዓት መጠቀምና ማንቀሳቀስ እችላለሁ።					
የሞባይል ባንኪንግ አጠቃቀምን መማር ቀላል ነው ብዬ አስባለሁ።					
በአጠቃላይ ሞባይል ባንኪንግ መገልገል ተጠቃሚ ያደርጋል።					
አመኔታ/ TRUST					
ባንኩ ታማኝና ሞባይል ባንኪንግ አገልግሎት ለመስጠት የሚያስችል አቅም አለው ብዬ አስባለው።					
የሞባይል ባንኪንግ አገልግሎት ጥሩ ነው ክፍያዎችንም በትክክል ያከናውናል።					

ሞባይል ባንኪንግ አስተማማኝ በመሆኑ የግል መረጃዎቼ ይመዘበራሉ የሚል ስጋት የለኝም፡፡					
ሞባይሌ ቢሰረቅ እንደሞባይል ባንኪንግ ተጠቃሚነቱ ገንዘቤን አጣዋለው ብዬ አላስብም፡፡					
ባንኩ ቃሉን ይጠብቃል ብዬ አምናለው፡፡					
ባንኩ ለደንበኞች ፍላጎት ተደራሽ ለመሆን ጥረት ያደርጋል፡፡					
ሪስክ አደጋ/ RISK					
የሴኪዩሪቲ ወይም የጥንቃቄ ጉዳዮች የሞባይል ባንኪንግ ሂሳቤን ቼክ ከማድረግ አያግዱኝም፡፡					
የሞባይል ባንኪንግ አገልግሎት ስጠቀም የግል መረጃዎቼን እሳሳታለው የሚል ስጋት የለኝም፡፡					
በሞባይል ባንኪንግ የገንዘብ ዝውውር በማደርግበት ጊዜ ገንዘቤን አጣዋለው ብዬ አልሰጋም፡፡					
የሞባይል ባንኪንግ ስጠቀም ሌሎች ሰዎች ሂሳቤን ይነካሉ የሚል አስተሳሰብ የለኝም፡፡					
ከሞባይል ባንኪንግ አጠቃቀም ጋር በተያያዘ የግል መረጃዎቼን ወደ ሞባይል በማስገባበት ጊዜ የደህንነት ስጋት የለብኝም፡፡					
ወጪ/ COST					
በሲስተም መቋረጥ ምክንያት የገንዘብ እንቅስቃሴ ስህተት ቢፈጠር ባንኩ ካሳ ይከፍለኛል ብዬ አስባለው፡፡					

የሞባይል ባንኪንግን መገልገያ እቃዎች ውድነት አያሳስበኝም ምክንያቱም አሁን ባለኝ ስልክ መጠቀም ስለምችል፡፡					
ሞባይል ባንኪንግ አገልግሎትን በእጄ ላይ ስለማገኝ የተለያዩ ወጪዎችን ይቀንስልኛል፡፡					
ሞባይል ባንኪንግ በጣም አስፈላጊ ነው ምክንያቱም የአገልግሎት ወጪዎችን በጣም ስለሚቀንስ፡፡					
ኢንፍራስትራክቸር/ INFRASTRUCTURE					
የኔትወርክ ችግር እያለ ጥሩ የሆነ የሞባይል ባንኪንግ አገልግሎት ማግኘት ይቻላል፡፡					
ተደጋጋሚ የኤሌክትሪክ መቆራረጥ የሞባይል ባንኪንግ አገልግሎት እንዳልጠቀም አያደርገኝም፡፡					