



College of Natural Science
School of Information Science

**Challenges and Prospects of Agent Banking in Ethiopia: the case of
M-BIRR and CBE-BIRR**

Henos Demeke

June, 2018

Addis Ababa University
College of Natural Science
School of Information Science

Challenges and Prospects of Agent Banking in Ethiopia: the case of
M-BIRR and CBE-BIRR

A Thesis Submitted to the School of information Science of Addis Ababa University
in partial fulfillment of the requirements for the Degree of Master of Science in
Information Science

By: Henos Demeke

June, 2018

Addis Ababa, Ethiopia

Addis Ababa University
College of Natural Science
School of Information Science

Challenges and Prospects of Agent Banking in Ethiopia: the case of
M-BIRR and CBE-BIRR

By: Henos Demeke

Name and signature of members of the Examining board

		<u>Signature</u>	<u>Date</u>
Dereje Teferi (PhD)	Advisor	_____	_____
Getachew Jemaneh	Examiner	_____	_____
Temtim Assefa (PhD)	Examiner	_____	_____

June, 2018

Addis Ababa, Ethiopia

Declaration

I declare that this research report is my original work and has not been presented for any award to any College or University.

Signature _____

Date _____

Henos Demeke

This research report is presented for examination with my confirmation as a supervisor.

Signature _____

Date _____

Dr. Dereje Teferi

Acknowledgment

I would like to thank almighty God for giving me a chance to see his plans. My second appreciation goes to my advisor Dr. Dereje Teferi for his unlimited and friendly support.

My mother, I will always be in debt of your sacrifices to make me a better person.

I would like to say thank you to my friends for the unforgettable times we had in this school. I have learned so many things with you and I also thank my work colleagues and supervisors for their unanticipated support.

Lastly, Participants of this research, especially Ato Alemayehu Tefire, Ato Tafesework Nigussie, Ato Habtamu Shiferaw and Ato Alemayehu Worku thank you for your time and cooperation.

Contents

Contents.....	i
List of tables.....	iii
Table of Figures	iv
List of Acronyms	v
Abstract.....	vi
Chapter one.....	1
1. Introduction.....	1
1.1 Background of the study.....	1
1.2 Statement of the Problem.....	3
1.3 Objectives of the Study.....	4
1.4 Definition of Terms.....	4
1.5 Significance of the Study	5
1.6 Scope of the Study	5
1.7 Organization of the study.....	6
Chapter Two.....	7
2. Literature review	7
2.1 Agent banking.....	7
2.2 Branchless Banking Models	8
2.3 Financial Inclusion.....	8
2.4 Agent Banking practices.....	10
2.5 Benefits of Agent banking	14
2.6 Legal Framework.....	14
2.7 Conceptual Framework.....	16
2.8 Related Studies.....	22
Chapter Three.....	26
3. Research Design and Methodology	26
3.1 Research design	26
3.2 Variables	26
3.3 Sampling techniques	27
3.4 Data collection	28
3.5 Data analysis and Interpretation.....	29

3.6 Reliability and validity of the study	29
Chapter Four	31
4. Result and Discussion	31
4.1 Response rate	31
4.2 Demographic Data of Respondents	31
4.3 Perceived Economic factor	34
4.4 Perceived Usefulness	36
4.5 Perceived Ease of use.....	38
4.6 Perceived Trust	39
4.7 Perceived Risk	40
4.8 Actual use.....	42
4.9 Factor Analysis	43
4.10 Discussion	48
4.10.1 Hypothesis Testing.....	48
4.10.2 Factors affecting agent banking performance in Ethiopia	50
4.10.3 Agent banking service penetration in Ethiopia	52
4.10.4 Challenges and prospects of Agent banking Service in Ethiopia	53
4.10.4.1 Challenges of Agent banking service from Service providers’ perspective	53
4.10.4.2 Challenges of agent banking service from Agents’ perspective	55
4.10.4.3 Challenges of agent banking service from Customers’ perspective	56
4.10.4.4 Challenges of agent banking service from stakeholders.....	56
4.10.5 Prospects of Agent Banking service in Ethiopia.....	57
Chapter Five.....	58
5. Conclusion and Recommendation	58
5.1 Conclusion	58
5.2 Recommendation	58
5.3 Limitation of the study	59
5.4 Suggestion for Future Research	59
References.....	60
Appendix I	63
Appendix II.....	67
Appendix III.....	73

List of tables

Table 1: Independent variables	27
Table 2: Response rate	31
Table 3: Respondents age	31
Table 4: Respondents income	33
Table 5: Educational Background of Respondents	34
Table 6: Perceived Economic Factor Indicators	35
Table 7: Perceived Economic Factor Indicators (CUBS)	36
Table 8: Perceived Usefulness Indicators	37
Table 9: Perceived Ease of use Indicators	38
Table 10: Perceived Trust Indicators	40
Table 11: Perceived Trust Indicators	40
Table 12: Perceived Risk Indicators	42
Table 13: Actual Usage of Agent Banking	43
Table 14: Initial Model Indicators	45
Table 15: Final Model Indicators	47
Table 16: Total Number of Agents	53

Table of Figures

Figure 1: Theory of Reasonable Action (Gentry & Calantone, 2002).....	17
Figure 2: Theory of Planned Behavior (Gentry & Calantone, 2002).	18
Figure 3: The first Technology Acceptance Model (Lai, 2017).	19
Figure 4: The revised and final version of Technology Acceptance Model (Lai, 2017).....	19
Figure 5: Study Model (adopted from Davis, 1985 & Tobbin, 2012).....	21
Figure 6: Respondents' Income	32
Figure 7: Respondents' Educational Background.....	33
Figure 8: Perceived Economic Factor Indicators.....	34
Figure 9: Perceived Economic Factor Indictors (CUBS)	35
Figure 10: Perceived Usefulness Indicators.....	36
Figure 11: Perceived Ease of Use Indicators	38
Figure 12: Perceived Trust Indicators.....	39
Figure 13: Perceived Risk Indicators	40
Figure 14: Actual Usage of Agent Banking.....	42
Figure 15: The Initial PLS Model.....	44
Figure 16: Final PLS Model	48

List of Acronyms

- ATM:** Automated Teller Machine
- CBE:** Commercial Bank of Ethiopia
- ICT:** Information Communication Technology
- ITU:** International Telecommunications Union
- KYC:** Know your Customer
- MNO:** Mobile Network Operator
- NBE:** National Bank of Ethiopia
- PEF:** Perceived Economic Factor
- PEOU:** Perceived Ease of Use
- PR:** Perceived Risk
- PT:** Perceived Trust
- PU:** Perceived Usefulness
- SMS:** Short Message Service
- SPSS:** Statistical Package for the Social Sciences
- TAM:** Technology Acceptance Model
- TOE:** Technology-Organization-Environment
- TPB:** Theory of Planned Behavior
- TRA:** Theory of Reasonable Action
- USSD:** Unstructured Supplementary Service Data

Abstract

The aim of this research is to discover factors and challenges that are affecting the development of Agent Banking in Ethiopia, and develop a model that describes the factors with technology acceptance model (TAM). In addition the study tries to determine agent banking level of penetration or accessibility in Ethiopia and its prospects.

In this study mixed approach is used to answer the research questions and accomplish its objectives. Purposive sampling is used to select participants for the interview and two concerned and knowledgeable staffs from CBE-BIRR and M-BIRR are selected. Questionnaire is used to collect data from customers of five branches of commercial bank of Ethiopia who are active users of additive mobile banking (mobile banking service which is linked with customers' bank account).

The result of the research identifies different factors grouped in five constructs of technology acceptance model. These factors and sub-factors are Perceived Economic factor (Cost of using bank account), Perceived usefulness (Actual /practical benefits) Perceived ease of use (illiteracy, Awareness, mobile network quality), Perceived Trust (trust to the bank, trust to the agents, trust to the technology), Perceived Risk (Vulnerability to Errors and Vulnerability to Hackers). Finally a model is designed using Smart PLS Version 3.2.7.

Challenges regarding development of agent banking are also discussed with service providers and agents. To this end, different challenges are raised and discussed during the interview including awareness of customers and agents, availability of limited services, NBE regulations and limitations, lack of budget, poor advertisement, illiteracy and mobile network quality.

Based on the results of the study the researcher recommends the following points to improve current performance of agent banking i.e. developing new channel for illiterates, availing new and additional services, proper advertisements and the need for more effort on improvement of the actual benefits.

Keywords: Agent banking, CBE-BIRR, Financial institution, M-BIRR, Technology Acceptance.

Chapter one

1. Introduction

1.1 Background of the study

Information technology is highly affecting human activities and their ways of life. Advancement in Information technology is changing every sector's working practice. Banking is one of the sectors which are rapidly evolving through information technology (Ferdous et al., 2015).

Nowadays there are large numbers of commercial banks in Africa, but most of commercial bank branches are located in cities, in search of well-built infrastructure and market. According to World Bank (2017), 61.73% of Sub-Sahara African population lives in rural areas with lower level of infrastructure development. However, traditional branch based banking discriminates this significant number of population from accessing modern banking services (Atandi, 2013).

In Ethiopia there are 16 private and 2 state-owned commercial banks and there are a total of 3282 branches around the country at the end of March 2016. However, 35% of Bank branches are located in Addis Ababa and most of the remaining 65% of branches are also located in other cities like Bahirdar, Dire Dawa and Adama (NBE, 2017).

As stated earlier this phenomena hinders large portion of the society from getting services of financial institutions. For instance there are only 82 bank branches for more than 8 million people living in Afar, Benishangul, Harari and Gambela (NBE, 2017).

Agent banking is becoming a substitute channel to deliver banking services to the unbanked society and for people who are located in geographically remote areas. It highly depends on the use of information technology, specifically the mobile technology. Agent banking permits financial institutions to serve the disadvantaged and unbanked societies. This technology allows customers to access their account at nearby agent (retail shops, post offices, supermarkets and others). The agent provides customers with basic banking services including account opening, cash withdrawal, fund transfer, cash deposit and other simple services. In return the agent generates commission for each service it provides (Kanini, 2011).

Most of Ethiopian Commercial banks are using mobile phone technology for notification when there is a change on customers' account balance. In addition customers are also able to check

their balance and make transfers between accounts if both accounts are held within the same bank (Asfaw, 2015).

The current Mobile banking service is limited to each bank's network and to use mobile banking, the customer must have an account within formal (traditional) bank branches, application of agent banking can avoid such problems because customers can open mobile money account without going to the formal bank branches and make transfers to any mobile phone subscriber.

Five micro finance institutions from different Ethiopian regions have started agent banking service, M-BIRR. M-BIRR started its service in September 2015 after three years of pilot testing and provides simple financial related services, i.e. cash transfer, cash deposit, cash withdrawal and bill payment. However, compared with neighboring countries, agent banking service in Ethiopia has lower rate of penetration. It has limited number of customers with partially available services (Asfaw, 2015).

CBE-BIRR is an agent banking service introduced by Commercial Bank of Ethiopia in accordance with NBE directive number FIS/01/2012. It was in testing phase from June 2017 to December 2017 and became live in December 12, 2017. Like other agent banking service providers, CBE-BIRR customers can transfer money to subscribed or unsubscribed users, deposit and withdraw cash from agents, buy airtime directly without scratching mobile cards, pay for goods and services.

Commercial Bank of Ethiopia has more than 1,200 branches in Ethiopia and CBE-BIRR is taking advantage of this huge number of networked branches to recruit new agents and customers.

There are different researches done in different institutions on the adoption, challenges and factors that affects agent banking business in Ethiopia. However, most of the studies are done before full implementation of agent banking technology and they couldn't include information from agents and customers. This research tries to close the gap by participating actively working agents and customers.

The main aim of this research is to find out the major factors that are affecting the performance of Agent banking in Ethiopia, the level of agent banking penetration, challenges for Agent

Banking services in Ethiopia and its prospects. As far as the researcher's knowledge there are no researches done on the factors that affect Ethiopian agent banking application by participating actively working agents and customers.

1.2 Statement of the Problem

Ethiopian population has reached more than one hundred million. This population is highly distributed across the country and 80.5% of them live in rural areas with poor level of infrastructure (UN, 2016).

According to NBE, Ethiopian financial institutions (Banks, insurances, Credit associations and micro finance institutions) are underdeveloped although they are improving in recent years. As of March 2016, the total number of branches increased by 19.2% and reached 3282. Number of ATMs deployed has also increased from 1,234 terminals in 2015 to 1,639 in March 2016 (NBE, 2017).

The major problem in Ethiopian financial sector is the unfair distribution of financial institutions across the country. As mentioned earlier, from the entire bank branches, most of them are located in Addis Ababa and other cities (NBE, 2017).

On the other hand, in Ethiopia there are 51 million mobile subscribers, which is 50.51% of the total population and 15 million internet subscribers. In comparison, Africa's current mobile coverage reached 74.6% (International Telecommunications Union [ITU], 2016). According to Kpodar & Andrianaivo (2011), to get the full benefits of ICT implementations (in our case mobile banking) the penetration rate should have reached at least 40% and as stated earlier Ethiopia's mobile coverage has reached more than 50%. However, utilization of mobile infrastructure to provide financial services like agent banking to the unbanked society is not growing as expected and it is highly related with growth of mobile phone users (Asfaw, 2015).

This research identifies external factors challenges and prospects of agent banking (mobile money) services in Ethiopia and it answers the following research questions.

1. How different factors affect the current performance of agent banking service in Ethiopia?
2. How to determine the level of agent banking service penetration in Ethiopia?

3. What are the challenges on implementation of agent banking service in Ethiopian context?

1.3 Objectives of the Study

General Objective

The general objective of this study is to explore the challenges and prospects of agent banking (mobile money banking) service in Ethiopia.

Specific Objectives

Specific objectives of this study are:

1. to identify the critical factors for the current performance of agent banking in Ethiopia.
2. to assess Ethiopian agent banking service level of penetration.
3. to identify the challenges to implement agent banking (mobile money) service in Ethiopia.

1.4 Definition of Terms

Additive mobile banking: is an extension of existing banking service and it serves as complement to access bank account such as ATM and checkbooks.

Agent banking: refers to the conduct of banking business on behalf of a financial institution through an agent using various service delivery channels.

Agent: is a person engaged in a commercial/business activity and has been contracted by a financial institution to provide the services of the financial institution on its behalf.

Financial inclusion: is the access of financial services to a certain society at affordable cost.

Financial services: are services offered by financial institutions i.e. bank, insurance, microfinance and other financial institutions.

Mobile banking: is the delivery of financial services through mobile devices such as mobile phone.

Transformational Mobile Banking: is a mobile banking service in which the financial product is linked to the mobile phone and it is independent from traditional bank account.

Unbanked: refers to a society or person who have never had a bank account and never used formal financial services.

Under-banked: refers to the person who previously had a bank account but currently s/he is not using it properly.

1.5 Significance of the Study

Agent banking is a highly growing mechanism of addressing the un-banked society. In addition, it also has a competitive advantage for financial institutions. Furthermore, agent banking contributes to the development of financially inclusive economy and it makes financial services accessible to the society.

This study is important because:

- It identifies the major factors that affect performance of agent banking in Ethiopia.
- It identifies the challenges regarding the development of agent banking in Ethiopia.
- Develops a model that can describe the factors and their impact on the usage of agent banking.

As a result, this study is essential for regulatory bodies, financial institutions and agents to improve their way of doing business.

1.6 Scope of the Study

The major focus of this study is the current agent banking (mobile money banking) implementation practice in Ethiopian financial sector. In this particular study two agent banking service providers, M-BIRR and CBE-BIRR are included.

M-BIRR is agent banking service initiated by five micro finance institutions from different regional states of Ethiopia. The institutions are Amhara Credit and Saving institution, Addis Credit and Saving Institution, Dedebit Credit and saving Institution S.C, Oromia Credit and

Savings and OMO Microfinance. On the other hand CBE-BIRR is commenced by commercial bank of Ethiopia to address petty cash holders and the unbanked society.

Agent banking is a broad concept of providing banking service through agents located in the community. However this service is currently offered with two channels. The first one is more similar with traditional branch based banking; that means customer must attend the retail shops to make transaction with their account. The second channel is automated and using this channel, customers can maintain their account remotely with their cell phone. The major focus of this study is the second or the automated channel, which enables customers to transact using their mobile phone.

1.7 Organization of the study

This research paper is organized in five chapters. The first chapter is introduction, the second chapter includes review of literatures, and the third chapter is about Research design and Methodology. Result and discussions are presented in chapter four. The last chapter includes conclusion and recommendation.

Chapter Two

2. Literature review

Mobile phone technology is showing remarkable growth in Africa. According to ITU (2016), 74% of African population has mobile phone access and this number gets higher in South Africa, Kenya, Egypt, Gambia and Nigeria. Following this expansion, mobile money banking service (Agent Banking) emerged. Agent banking provides basic banking services like money transfer, purchasing goods and services, cash deposit and withdrawal without going to bank branches (Ngugi et al., 2010).

2.1 Agent banking

According to National Bank of Ethiopia Agent means “a person engaged in a commercial/ business activity and has been contracted by a financial institution to provide the services of the financial institution on its behalf” and Agent banking means “the conduct of banking business on behalf of a financial institution through an agent using various service delivery channels”(NBE, 2012).

It is expensive to build access to financial institution branches for people who has small amount of money to transact. In addition, these branches needs good infrastructure. To overcome this problem countries and development organizations worked hard to introduce agent banking. (Dermish et al., 2012).

A banking agent is a retail or postal outlet contracted by a financial institution or a mobile network operator to process client's transactions. Rather than a branch teller, it is the owner or an employee of the retail outlet who conducts the transaction and lets clients deposit, withdraw, and transfer funds, pay their bills, inquire about an account balance, or receive government benefits or a direct deposit from their employer (Chiteli, 2013).

Agent banking is suitable for geographically dispersed population and inaccessible areas, these characteristics make it successful in Africa and South America.

2.2 Branchless Banking Models

Agent banking can be initiated and led by different parties based on the state's laws and regulations. The well-known agent banking models are based on the institution that initiate the service and grouped into three categories. These are bank-focused, bank-led and nonbank-led.

In bank-focused model the bank provide its customers with modern and cost effective technologies like ATM and mobile banking. These services are considered as alternative channels and cannot replace the traditional branch based banking (Aduda, et al., 2013).

Although banks in sub-Sahara Africa are promoting ATM, the use of bank teller is very common. For instance, in Ethiopia, 83% of customers use bank teller to withdraw money (Demirgüç-Kunt et al., 2015, p. 19).

In the Bank-led model the bank will engage in recruiting agents that can provide banking service on its behalf and customers can maintain their account using mobile phone (Aduda, et al., 2013).

The third model is nonbank-led model in which banks will not have direct relationship with agencies. In this model the bank will serve as safe place to store excess cash and other organizations like telecom companies have the major role in recruiting agents and promoting the service (Aduda, et al., 2013). Even though these models are used in different countries, there is no single best model. But it is believed that telecom companies developed trust and have better chance to access large number of unbanked people.

2.3 Financial Inclusion

Financial inclusion is providing services of financial institution to the poor and disadvantaged people with affordable cost. Financial inclusion incorporates different financial services provided by formal financial institution like saving and credit facilities, insurance and remittances (Dev, 2006).

Financial inclusion and access to financial services are two different concepts. The focus of financial inclusion is actual usage of financial institutions but absence of usage doesn't mean absence of access. There are factors other than lack of access that can limit individuals' usage of formal financial institutions; this includes cost, legal and cultural barriers. The effect of these barriers can be reduced by better policies (Demirgüç-Kunt et al., 2015, p.3). According to

Demirgüç-Kunt et al. (2015) 62% of the global adult population has access to financial services, but still 38% of the world population remained unbanked (Demirgüç-Kunt et al., 2015).

Financial inclusion starts with having an account but having an account is not enough. In order to use all benefits out of it, there should be regular usage. Modern financial technologies like ATM, mobile & internet banking and Agent banking can ease this task by providing time and cost effective services. On the other hand accepting various payments through account has also positive impact on promoting financial inclusion (Demirgüç-Kunt et al., 2015, p. 2)

Promoting financial inclusion

Government and other private institutions can promote financial inclusion through different ways. Since government and institutions have a major influence on the society, they can push their employees and other stakeholders to use formal financial services by applying the following methods (Demirgüç-Kunt et al., 2015, p. 11).

Paying wages through account: paying salaries through bank account has benefits for both the employer, the employee and also for the bank. Companies can reduce cost of hiring dedicated person to pay salaries of employees and this let them to use their employees effectively. On the other hand the employee will have the chance to use formal bank account and save money. Last but not the least; the bank will be benefited through growing number of customers and amount of deposit.

Encouraging money transfers through account: in most African countries, people use money transfers from urban areas and abroad as a main source of income. But according to Findex (2014) in developing countries 14% (270 million) of unbanked adult send or receive money in cash directly. Encouraging this untapped market to use formal financial services like agent banking will contribute to the efforts of creating modern and financially inclusive economy.

Collecting bills using electronic payment systems: Several government and private office collect payment from their subscribers using different methods. Most people in developing countries like Ethiopia pay their bills in cash. In the year 2013, 30% of both Kenyan and Nigerian adults paid for utility bills, but there is a huge difference on how they made these payments. In Kenya

55% of utility payments are made through mobile phone whereas, in Nigerian case 80% of payments were in cash and only 1% of the payments were through mobile phone.

In order to create financially inclusive environment, the government and other private organizations should invest on the infrastructures that enable customers to make their bill payments through mobile phone and other modern technologies.

2.4 Agent Banking practices

Mobile and agent banking in the developed world

In the developed world mobile banking is used to provide additional channel to access formal bank account and it is known as Additive mobile banking (Tobbin, 2012). Porteous (2006) identified mobile banking from two perspectives the first one is additive and the second is transformational (as cited in Tobbin, 2012).

Additive mobile banking serves as alternative way of managing bank account and it enable customers to check their account balance and make transfer from the account held at formal bank branches.

In contrast, transformational mobile banking is a mobile money service where customers open account using their cell phone and it is independent from formal bank account. The major targets for this service are people who doesn't have access to formal financial institutions and remain unbanked due to poor infrastructure development. Transformational mobile banking is expected to change the lives of people in developing countries and increase their access to financial services. However, to achieve this goal the society must have access and use of mobile banking services.

Agent Banking Practice in Ethiopia

In Ethiopia eleven commercial banks and six microfinance institutions have got permission to provide agent banking service (NBE, 2017). Among these institutions five micro finance institutions from different Ethiopian regions have started agent banking service, M-BIRR. M-BIRR provides simple financial related services, i.e. cash transfer and deposit, cash withdrawal and bill payment. However agent banking service in Ethiopia has lower rate of penetration. It has limited number of customers with partially available services.

CBE-BIRR is an agent banking service introduced by Commercial Bank of Ethiopia in accordance with NBE directive number FIS/01/2012. It was in development phase for long period of time and became live in 2017. Like other agent banking service providers, CBE-BIRR customers can transfer money to subscribed or unsubscribed users, deposit and withdraw cash from agents, buy airtime directly without scratching mobile cards and pay for goods and services.

Commercial Bank of Ethiopia has more than 1,200 branches in Ethiopia and CBE-BIRR is taking advantage of this huge number of networked branches to recruit new agents and customers.

In addition to this, there are a number of agent banking services administered by various financial institutions, mostly banks. There is also slight difference regarding the channel used to provide the service. Some banks recruit agents to provide financial services when customers appear physically and others are using modern technologies like mobile phone, which enables customers to maintain their account remotely without visiting agents.

Agent banking Practice in Kenya

Different literatures have different information about the emergence of agent banking. According to Tobbin (2012) it was first introduced in Philippines in 2003 but according to Demirgüç-Kunt et al. (2015) South Africa is the first country to have agent banking in 2004 and other scholars like Ngugi et al., (2010) argued that Kenya is the first. Regardless of its emergence Kenya's M-PESSA is the most successful agent banking service provider. M-PESA is introduced by safari com, the biggest mobile service provider in Kenya. M stands for mobile and PESSA is money in Swahili. Currently it is providing financial services i.e. cash transfer, payment for goods and services, salary payment and other services (Ngugi et al., 2010).

After two years of implementation M-PESSA had 8.6 million customers and \$328 million transactions per month. Vodacom, telecom service provider in Tanzania also copied M-PESSA model to Tanzania but it couldn't be as successful as it was in Kenya. In Kenya there were 2.7 million customers after one year of operation. However, Tanzanian Telecom Company could only have 280,000 customers at the same time (Ngugi et al., 2010).

Kenyan community is slow to adopt other technologies like new technology of farming, manufacturing, transport and others. But mobile money banking was much successful. Different researchers tried to identify the success factors that make M-PESSA successful in Kenya (Ngugi et al., 2010).

Success Factors of M-PESSA in Kenya

According to Ngugi et al., (2010) before the introduction of M-PESSA, 14.3% of Kenyan rural population was dependent on its urban relatives. On the other side people in urban areas were in need of cheap and fast way of sending money to their families leaving in countryside. He also identified the following success factors for M-PESSA in Kenya.

1. *Illiteracy*: the un-banked society in Kenya is illiterate to handle all paperwork of operating formal bank account.
2. *Cost*: Kenyan banks require minimum balance and have charges if that amount of money is not maintained in customer's account. On average single current account has \$19 cost per month which is not affordable for most people. In contrast M-PESSA has no minimum balance requirement and has minor charge for money transfer.
3. *Location of banks*: while 70% of the population in Kenya lives in rural areas, most of the bank branches are located in cities.
4. *Big market share of Safaricom*: Safaricom has 79% of the country's telecom market share, this allows the company to have huge market and to implement modern technologies easily (no need of migration from other telecom companies).
5. *Sense of ownership*: as a home grown technology, Kenyan community has real sense of ownership. The major challenge in Tanzanian case was the people considered it as foreign technology and brought to generate income to the telecom company.

Due to these factors M-PESSA in Kenya became successful and could generate 8.6 million customers within two years.

Performance Factors of Agent Banking

Business performance can be measured by growth, business expansion and profit. According to Ombutora & Mugambi (2013) the performance of agent banking is highly affected by five factors. These are:

Cost of Transaction: since agent banking makes bank services more accessible through agents, it has cost advantages for customers. Here the cost includes transportation cost and bank service charges. But most customers did not recognize this cost and this affects the performance of agent banking.

Rules and regulations: the financial regulation has also a huge impact on the performance of agent banking. The governing body decides about every aspects and agreements between service provider, Agent and customers. However, if the regulations are too tight, it may affect the rate of agent banking penetration in the market.

For instance, National bank of Ethiopia is the regulatory body in Ethiopian financial market and it regularly controls and instructs financial institutions. Regarding agent banking, NBE has certain rules than can affect agent banking performance in one way or another. For example maximum amount of deposit that a customer can have is limited to 25,000 birr and according to NBE directive no. FIS/01/2012 only financial institutions can provide agent banking service.

Commission: agents and merchants generate commission when customers order withdrawals, deposits or other transactions and the amount of commission is based on the agreement between the bank and agent. Whenever the customer have a certain service there will be a service charge and this charge will be shared to the bank and agent based on the agreed ratio, which in return affects the motivation and performance of agents.

Transaction time: agents work more hours than formal bank branches and it allow the customers to use the service whenever they want. In addition, when compared with bank branches it takes shorter time to make transaction via agents.

Security: most agents are located at the neighborhoods and this minimizes the risk of carrying cash for longer distance to bank branches.

2.5 Benefits of Agent banking

Agent banking allows customers to access their account using mobile phone at any time which promotes flexibility. After full implementation, customers can pay their bills without physically appearing in offices. Users of Agent banking can make payments using their cell phone while reducing the risk of carrying cash (Asfaw, 2015).

Agent banking has also many advantages for financial institutions. Through agent banking, banks can reduce cost involving with operating traditional bank branches and it also gives them competitive advantage because of its accessibility to the society. Additionally, after creating awareness of using financial services with agent banking, it will also have positive impact to banks' customer base (Asfaw, 2015).

In addition to their cost minimization benefits ICT and mobile banking technologies increase the market share of microfinance institutions and contribute to their growth through providing technologies that are reliable, accessible and safe (Kpodar & Andrianaivo, 2011).

2.6 Legal Framework

In Ethiopia every financial institution including banks, insurances, microfinance and other financial institutions are governed by national bank of Ethiopia (NBE). NBE is responsible to license and control activities of these financial institutions. In 2012 NBE has developed a directive called Regulation of Mobile and Agent Banking Services Directives No. FIS /01/2012.

The directive covers almost all issues related with mobile and agent banking service. According to this directive, only financial institution licensed by national bank of Ethiopia are allowed to provide this service in geographical boundaries of Ethiopia and with Ethiopian birr only. In addition, it allows financial institutions to provide mobile banking service through their agents.

There are also limitations stated in this directive, for example the maximum amount that a customer can have in his mobile account is 25,000 birr and daily transaction of any customer shall not exceed 6,000 birr.

Another requirement stated in the directive is the technology used to render this service. According to NBE the system must have the following minimum requirements before starting operation and institutions must consider the following risks to protect their customers from any fraud related with the technology.

- User Risk
 - Users should be informed about how to handle and secure their mobile account with personal identification number (PIN) and other security features.
- Infrastructure and software application risk: the system should have
 - Information security standard
 - Application error, message type and message handling
 - PIN and user authentication
 - Financial and non-financial data storage
 - Availability of service and backup
 - Confidentiality of user information
 - Data and transaction integrity
 - Maintenance of audit trails
 - separation of duties
 - Authorization controls
- Communication media risks
 - Communication protocol risks
 - Data storage risk
 - Availability and quality of service
- Agent and third party service provider risks
 - Data encryption and message integrity
 - Data storage and backup
 - Physical and logical access to the system
 - Authenticity and uninterrupted communication
- Business continuity plan

- Availability of services
- Disaster recovery site
- Standardize data center
- Redundancy of network communication
- Antivirus protection
- Interface feature of the application
 - The system should be interoperable with other systems in any file format.

2.7 Conceptual Framework

In order to be productive, organizations utilize improved way of production and service delivery. Companies implement different technologies to satisfy their customers and the acceptance of these technologies highly depended on customers' perception towards that technology.

There are different models that describe the relationship between social, environmental, technological and other factors and individual's intention to use new technologies. Some of the technology acceptance models are discussed below.

Theory of Reasonable Action (TRA)

Theory of reasonable action (figure 1) is developed by Fishbein and Ajzen in 1975. It is one of the well-known models and it shows the determinants of human behavior. According to this model, behavior is the result of individual's attitude and belief and it is affected by behavioral intention. At the same time behavioral intention is determined by attitude and subjective norms.

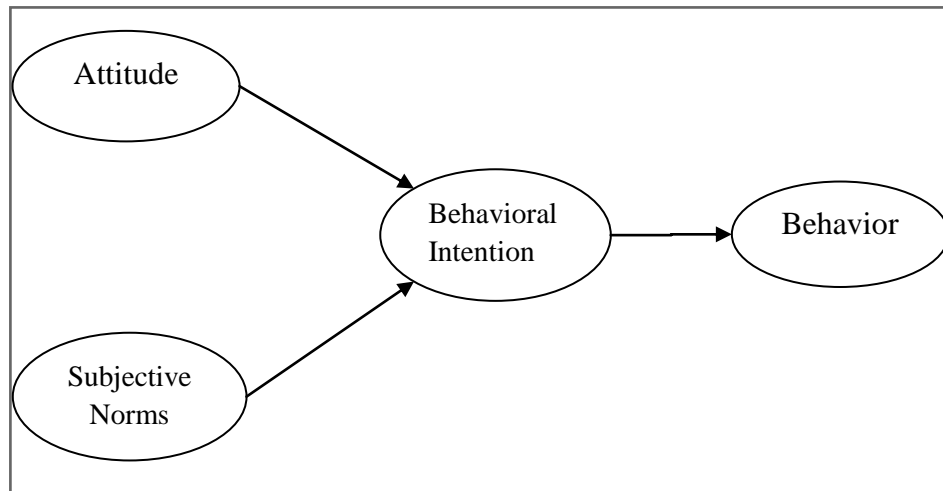


Figure 1: Theory of Reasonable Action (Gentry & Calantone, 2002).

Attitude: is individual's evaluation of an object whether it is favorable or not.

Subjective norm: refers to approval or disapproval of a certain behavior by immediate or important members of the community i.e. peers (Gentry & Calantone 2002).

Theory of Planned Behavior (TPB)

Theory of planned behavior (figure 2) is developed in 1991 by Ajzen to avoid the weakness of theory of reasonable action. It is the same as theory of reasonable action but it has one additional component, perceived behavioral control.

Perceived behavioral control is users' perception of the ease or difficulty of performing a given behavior and it varies through different situations (Gentry & Calantone, 2002).

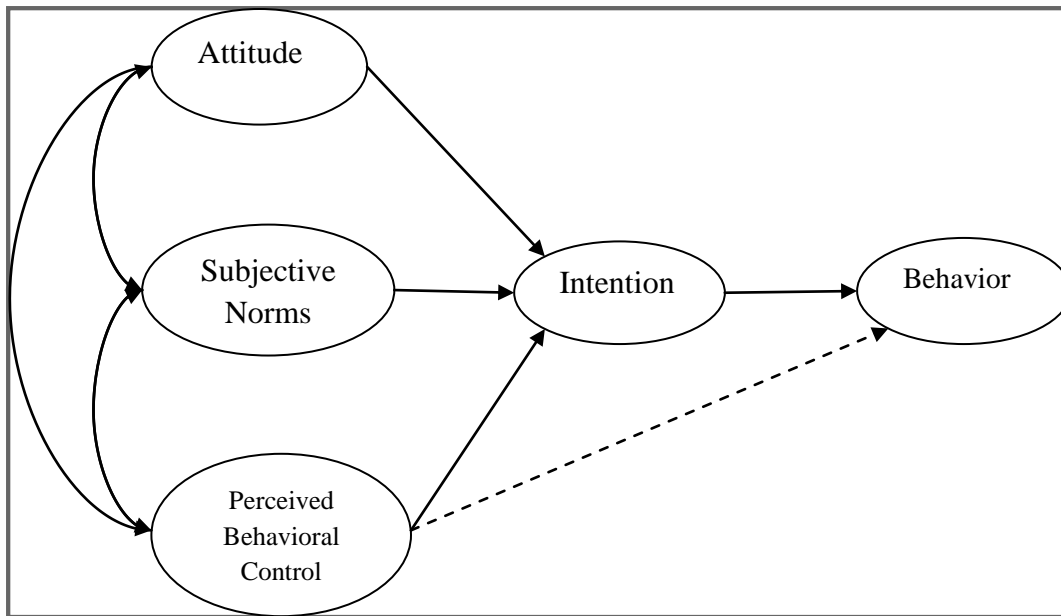


Figure 2: Theory of Planned Behavior (Gentry & Calantone, 2002).

The major weakness of both models (TRA and TPB) is these models are affected by environmental factors and both models are highly affected by social factors, which has insignificant impact on the study of users' acceptance of certain technology used for personal consumption. Subscribing for agent banking service is fairly personal decision that doesn't affect the community. In addition for researchers focused on technology acceptance it is very hard to study social factors (Gentry & Calantone, 2002).

On the other hand TAM has two clear constructs, perceived usefulness and perceived ease of use and it can be used in different situations and it is suitable for studying acceptance of technology that are used for personal use (Gentry & Calantone, 2002).

Technology Acceptance Model (TAM)

Technology acceptance model (see figure 3 and 4) came to existence in 1986 by Fred Davis in his doctoral dissertation. It is designed to model human's acceptance towards information technology. The original version of TAM is focused on two elements, perceived usefulness and perceived ease of use. Perceived usefulness is individual's subjective thinking that the system will improve his activities(Lai, 2017).Perceived usefulness (PU) can be measured by

performance increase, productivity increase, effectiveness, overall usefulness, time saving and increase job performance (Tobbin, 2012).

On the other hand perceived ease of use means user’s thinking towards certain system is going to be easy to apply. It can be measured by ease of control, ease of use, clarity and flexibility to use (Lai, 2017) and (Tobbin, 2012). TAM also recognized other external factors that can affect user’s perception of a new system (Lai, 2017).

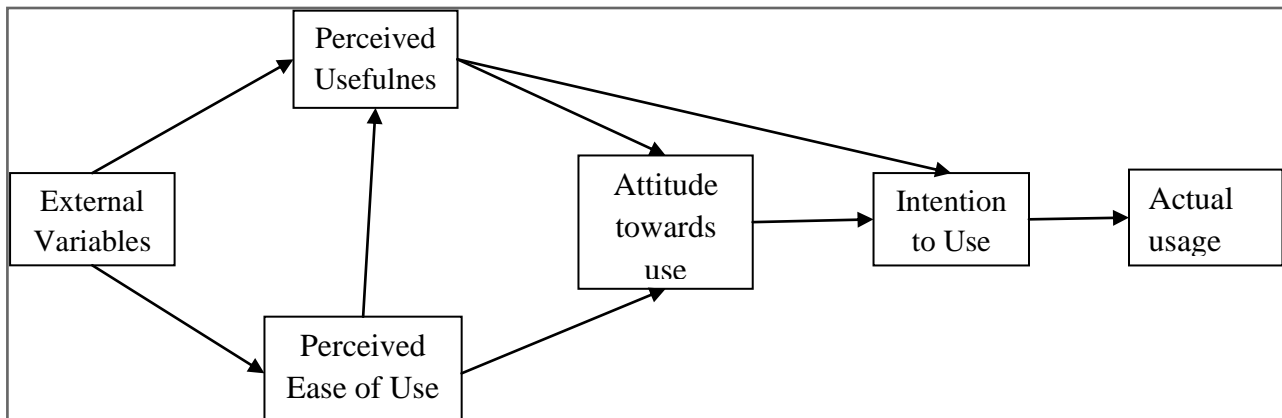


Figure 3: The first Technology Acceptance Model (Lai, 2017).

Final version of technology acceptance model (TAM) was introduced in 1996 after the finding that perceived usefulness and perceived ease of use have the same and direct influence on “attitude towards use”. As a result “attitude towards use” was removed from the earlier model (Lai, 2017).

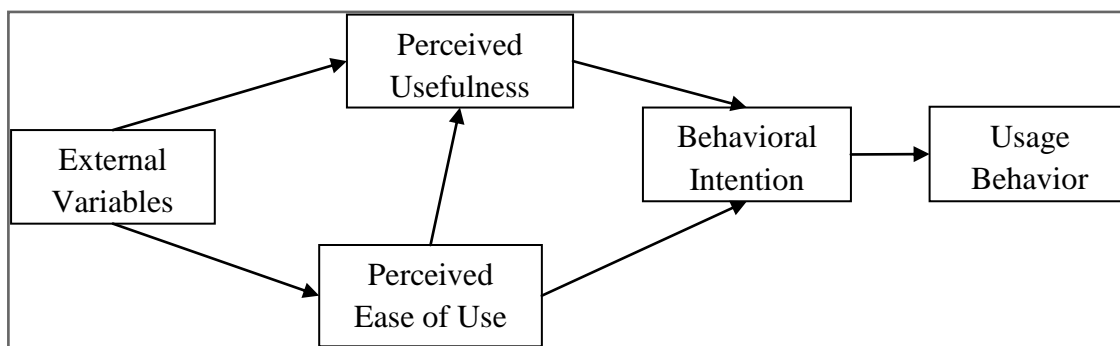


Figure 4: The revised and final version of Technology Acceptance Model (Lai, 2017).

Technology acceptance model was updated in 2000 and 2008 as TAM 2 and TAM 3 respectively to encounter the weaknesses of TAM in relation to its descriptive power. In TAM 2 different

determinants are added to “perceived usefulness” and “intention to use” constructs and tried to figure out if the added determinants have influence on users’ perception to use the system (Lai, 2017).

Technology acceptance model version 3 (TAM 3) was introduced to overcome the problem of TAM 2. TAM 2 focuses only on determinants of perceived usefulness and usage intention but TAM 3 added determinants to perceived ease of use and usage intention. TAM 3 incorporates the entire network of determinants of users’ information technology system adoption (Lai, 2017).

TAM is criticized because it basically focuses on cause and effect analysis and doesn’t consider other social and cultural factors, i.e. if a certain system is perceived as useful and ease for use, users will have intention to use the system (Tobbin, 2012). But for systems that are designed for personal use, social determinants will have insignificant influence on the user (Lai, 2017).

In conclusion, technology acceptance model is best fit to study the factors that determines users’ technology acceptance. Different studies show that technology acceptance model can be used in different research areas. According to Lai and Zainal (2014; 2015) (as cited in Lai, 2017) technology acceptance model is more capable and suitable in comparison with TRA and TRB.

Since technology acceptance model is favorable to study users’ behavior towards new technologies, the researcher used this model for this specific study.

Study Model

The model (figure 5) is developed based on the technology acceptance model of Davis (1985) and Tobbin (2012) but external variables (cost of using banks, Actual benefits, Illiteracy, Awareness, Mobile network quality, Trust to the bank, trust to agent, trust to the technology, Performance and financial risk) are identified based on the data collected from the participants and they have impact on the major five factors (PEF, PU, PEOU, PT PR).

Advertisement has a direct effect on the usage intention. Customers may have enough awareness about agent banking but detailed information must be provided starting from where to register, how to register, what the requirements and the actual benefits are.

On the discussion with head of mobile and agent banking department at M-BIRR, he stated that they have tested the impact of advertisement on customers' and agents' initiation. However, advertising this service requires huge finance which is not affordable by many microfinances.

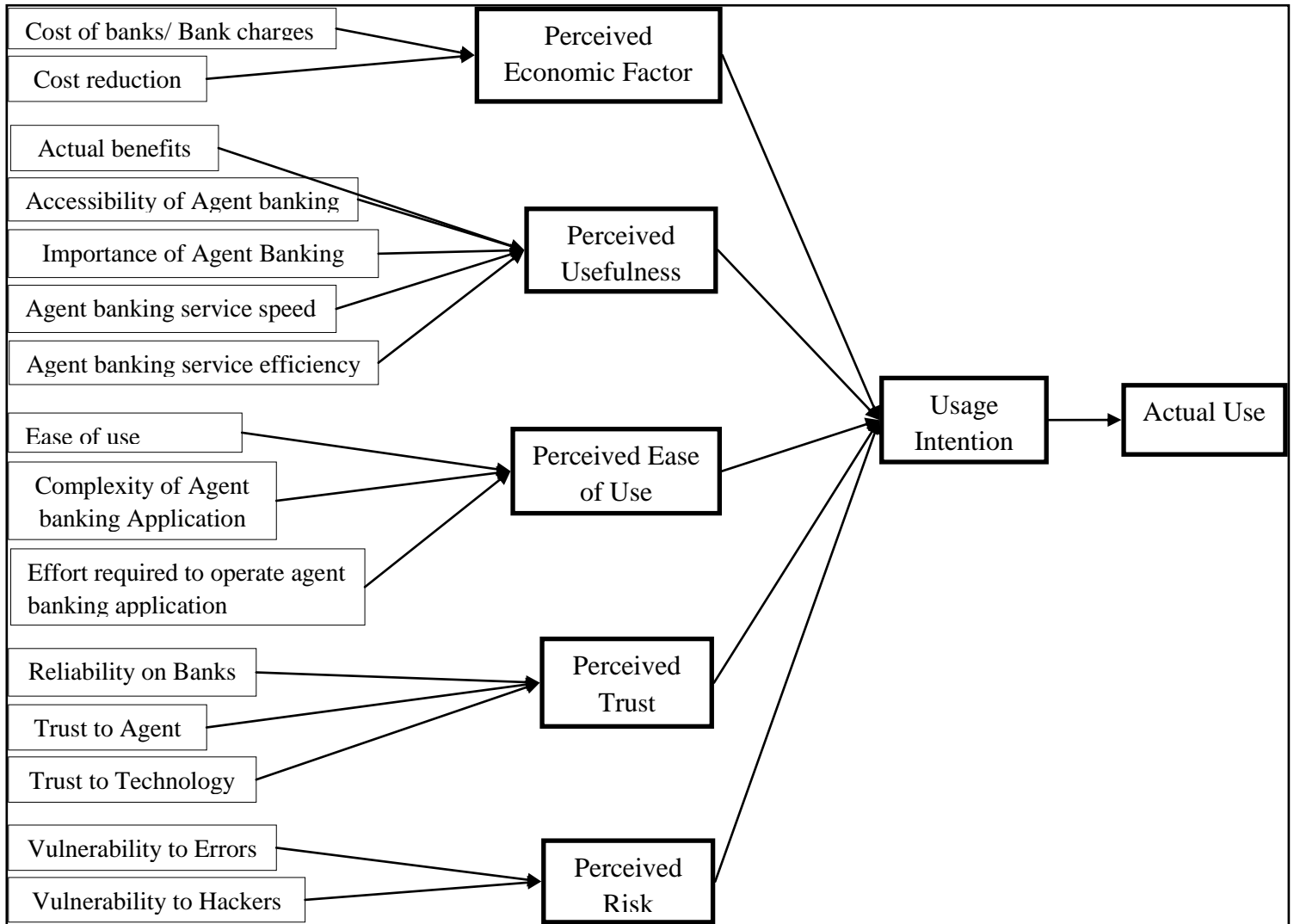


Figure 5: Study Model (adopted from Davis, 1985 & Tobbin, 2012)

As a result, the following hypothesizes are derived from the study model (figure 5):

H1: Bank charge and cost reduction has a positive impact on actual usage of Agent banking service.

H2: Actual benefits, service efficiency, service speed, Importance of Agent Banking and Accessibility of Agent banking has positive impact on actual usage of Agent banking.

H3: Ease of Use has a positive impact on actual usage of agent banking.

H4: Effort required to operate agent banking application and Complexity of the Application has a negative impact on the actual usage of Agent banking.

H5: Trust to the bank/service provider, Trust to agents and trust to the technology have positive impact on the actual usage of Agent banking.

H6: Vulnerability to Errors and Vulnerability to Hackers have negative impact on the actual usage of agent banking.

2.8 Related Studies

Agent banking is a recent financial technology but there are a lot of researches done on different issues and factors related to agent banking and some of the researches are discussed in this section.

There is a research done by Tobbin (2012) in Ghana on the factors that can affect the acceptance of Agent (mobile money) banking among the rural societies. Mobile money banking is introduced in Ghana in 2009 by the telecom company MTN but it is still strange to the Ghanaian farmers.

The participants for their study were selected from three rural communities and the total number of participants was 97 inhabitants that are organized into eight focus groups. The average distance between each community and the formal bank branches is 5km. The experience of participants regarding mobile money services is very low, only 3% of them have used mobile money banking. 85% of the total participants have never had a bank account and according to them the major reason is lack of surplus money.

In addition to the original TAM constructs (perceived ease of use and perceived usefulness), the researcher figured out two major factors that are affecting the acceptance of new technology specifically, mobile money banking in the rural areas of Ghana. According to Tobbin (2012) the two major factors resulted from this study are perceived economic factor and perceived trust.

Perceived Economic Factor (PEF): is about the amount of surplus money. Participants had wrong perception regarding saving. Obviously some banks require initial deposit to open

account, but it doesn't mean customers' must have a lot of money and regular source of income to open saving account. But the participants have no idea about how much money is required to open bank or mobile money accounts. In general, lack of surplus money has a negative impact on the users' intention to use agent (mobile money) banking.

Perceived Trust (PT): the trust construct incorporates participants' level of trust to the new technology, telecom companies (MNO's) and agents. Trust to the technology is highly depended on the network fluctuation and complexity of the application interface.

Since mobile network operators are working with participants for longer period of time, they trusted MNOs more than banks. The more people are illiterate, the more they trust MNOs. Finally trust to agents is built up on the relationship between users of the agent (mobile money) banking service and the owner of small business (agents). Another result from this study showed that age and gender has impact on users' perception that the system is easy to use.

In conclusion, the researcher, Tobbin (2012) came up with the following findings:

- Perceived economic factor (PEF) has a significant and direct effect on the intention of the rural unbanked to adopt mobile banking services.
- Perceived Usefulness has a significant and direct effect on the intension of the rural unbanked to adopt mobile banking services.
- Perceived Ease of Use has a significant and direct effect on the intension of the rural unbanked to adopt mobile banking services.
- Perceived Trust has a significant and direct effect on the intension of the rural unbanked to adopt mobile banking services.
- Perceived Usefulness of the rural unbanked is determined by the level of convenience and affordability derived from mobile banking services.
- The age and gender of the rural unbanked affects their perceived ease of use of mobile banking services

Another research was done by Elfagid Aregahegne in 2015 on the challenges and prospects of mobile and agent banking. In this research the researcher tried to assess Ethiopian mobile and agent banking practice at that time.

According to Aregahegne, (2015) the challenges of mobile and agent banking service includes low level of ICT and road infrastructures, limited number of agents in rural areas and educational level of both customers and agents. On the other hand he also indicates possible prospects for this emerging technology these includes, untapped potential market, agent banking support banks to increase their market share and number of customers. Favorable political, social, technological and economic conditions and the growth of mobile penetration are also considered as prospects for Ethiopian agent banking.

As Aregahegne, (2015) clearly mentioned on his paper the following are limitations faced while he was conducting his research. The study only participate financial institutions and regulatory bodies (NBE and MOEFED). But the study did not include the major players i.e. Agents and actual users of the system because there was no actual agent banking service launched at that time. The other limitation of this study was it didn't incorporate the development, initiation and expansion stages of the technology. Finally the research is more concentrated on the challenges of adopting agent banking.

Barriers and drivers of adoption of agent banking innovation in Ethiopia is another research studied by Gugsu (2015). In this research, the data was gathered from four commercial banks and the collected data is analyzed using descriptive statistics.

The researcher combined Technology-Organization-Environment (TOE) and Technology Acceptance Model (TAM) framework to describe the effect and relationship of factors on the adoption of agent banking in Ethiopia.

Gugsu (2015) identified several external barriers to the development of agent banking in Ethiopia, such as lack of legal framework, under developed ICT infrastructure including poor network connectivity, lack of competition among banks, lack of sufficient government support and customer trust towards the service.

Lastly, the researcher recommended that, the central bank should prepare and issue legal framework that govern agent banking. In addition, the government has to support the banking sector by developing ICT infrastructure for successful implementation of agent banking. On the other hand banks should work on technology based competition to increase their number of customers, participate in awareness creations and making the system easy for use.

Mola (2016) has also studied the factors that influence the adoption of agent banking in Ethiopian private banks, (i.e. Dashen Bank, United Bank and Lion International Bank). In this research conceptual framework is developed based on innovation theory, agency theory and porter's competitive theory.

According to Mola (2016), factors that affect the adoption of agent banking in Ethiopian banks are technology, demography, competition, regulation, consumer behavior and untapped market.

The researcher also discussed the benefits of agent banking to the banks that includes competitive advantage, widen customer base and better accessibility. Finally the researcher recommends banks and regulatory bodies to work on the untapped market while minimizing the risk associated with the technology.

As a research the above discussed studies have their own limitations and gaps. While this research fills these gaps, it also discusses some of their limitations. One of the major weaknesses of these studies is most of them are done before the actual implementation of agent banking in Ethiopia. As a result, they couldn't include important data from agents and customers.

Since the banking industry has very similar environment it is better to focus on customers and agents to address the factors, challenges and prospects of agent banking implementation.

According to Gugsu (2015), one of the challenges in Ethiopian agent banking business is lack of legal framework. However, NBE's directive of agent and mobile banking is approved in 2012 and it covers all issues related with agent banking starting from document requirement to technology requirement and technology requirement.

Chapter Three

3. Research Design and Methodology

3.1 Research design

Research design is blue print of research and it shows the overall activities including data collection, sampling, data analysis and other aspects of a research (Bhattacharjee, 2012).

Based on their scientific objective researches are classified as positivist or interpretive. Positivist designs are used for theory testing and their aim is generalization. Whereas interpretive research designs focuses on theory building and interpret to the actual phenomena. Under both research designs there are several other specific research designs (Bhattacharjee, 2012).

According to Bhattacharjee (2012) researches are also grouped as Explanatory, Descriptive, and Exploratory on the basis of the research purpose. Exploratory research is suitable to study complex situation. Unlike explanatory research, that emphasizes on cause and effect analysis. Exploratory research focuses on the why and how part of the particular condition.

For this research the researcher followed mixed research approach and used case research (case study). Case study can be used for both qualitative and quantitative researches (Bhattacharjee, 2012). In case research, the researcher apply different mechanisms of data collection like interview, questionnaires, review of secondary data and observation to gather both quantitative and qualitative data about the situation (Greener, 2008).

3.2 Variables

Dependent variable

In this study the dependent variable is actual use. The result of actual use highly depends on independent variables discussed below (Table 1). Generally the four major variables that affect actual use are Perceived Economic factor, Perceived Usefulness, Perceived Ease of use, Perceived Trust and Perceived Risk.

Independent variables

Independent variables are selected based on detailed review of literatures (see Table 1). According to scholars, in addition to factors described in Technology Acceptance Model (TAM) there are additional

factors that can affect usage of agent based mobile banking. These factors are perceived economic factor and perceived trust. There are also other factors that affect these factors for instance perceived economic factor is affected by income of the user and costs related to the usage of mobile money banking.

Perceived economic factor refers to the effect of availability of excess money on the adoption of mobile banking. Many people think that they should have surplus money to use bank account generally and mobile banking specifically (Tobbin, 2012).

According to Tobbin (2012) people in developing countries attached their being unbanked to lack of enough money and they don't have the right information about the amount of money required to open bank account. In general Economic factor is about perception rather than reality.

Table 1: Independent variables

Independent Variables	
Perceived Economic Factor	Cost of using formal bank account
Perceived Usefulness	Actual Benefits
Perceived Ease of Use	Literacy
	Awareness
	Mobile network quality
Perceived Trust	Trust to the bank
	Trust to the agent
	Trust to the technology
Perceived Risk	Performance Risk
	Financial Risk

Source: Davis (1985), Tobbin (2012) & Research Data

3.3 Sampling techniques

In research there should be a method of selecting participant and this can be done in two ways. If the research population is small, all subjects can be taken as participant. This is called census and it is not practical for most researches. In order to save time and cost we should select representatives from the entire population and this technique is known as sampling (Dawson, 2002).

In general sampling can be classified as probability sampling and purposive sampling. In probability sampling every member of the population have equal chance and it applicable for generalization. However in purposive sampling, the major objective is description not generalization and researcher selects participants on purpose of describing some characteristics (Dawson, 2002).

Since statistical sampling is not applicable for case research, for this study the researcher used theoretical sampling because the main focus of this research is not generalization, rather building theories. This technique allows the researchers to choose sample based on the emerging theories through his observation or interview (Dawson, 2002).

The population of this study is customers of commercial bank of Ethiopia who are active users of additive mobile banking (mobile banking service which is linked with bank account) and it is characterized by high degree of homogeneity.

Purposive sampling is used to select participants for the questionnaire for two reasons. The first reason is the aim of this study is not generalization rather developing a theory that can describe factors that are affecting agent banking performance. Secondly as stated earlier the population is highly homogeneous. The questionnaire is distributed to five CBE branches. These branches are Mexico, Mekanisa, Sengatera, Finfinee and Temenja-yaj.

For the interview, two concerned employees from each service providers (M-BIRR and CBE-BIRR), four CBE-BIRR and three M-BIRR agents are selected purposively.

3.4 Data collection

In this study the researcher used different data collection methods and these methods include Interview, observation, semi-structured questionnaires and secondary data from documents.

Even though seven service providers have got license to engage in agent banking service currently their working environment is the same. M-BIRR and CBE-BIRR are selected for this study. The major reason to select these two organizations is based on their different background, M-BIRR is among the first companies to start agent banking and faced a lot of challenges. As a result, it has a major contribution for this research. On the other hand CBE-BIRR is new project from commercial bank of Ethiopia that began service in 2017 with strong financial support and other resources. In addition CBE-BIRR has learned from other institutions that started the service earlier.

The questionnaire and interview used in this study is based on the identified independent variables and it is adapted from the study of Kabir (2013) on *Factors influencing the usage of mobile banking: Incident from a developing country*. *World Review of Business Research*, 3(3), 96-114 and based on the research

done by international finance corporation (World Bank group) on the usage of mobile banking. The questionnaire incorporates thirty five questions.

The questionnaires are distributed in two ways, the first one is through online system using Google forms and hard copy is also used for participants who have no access to internet. In order to make the questionnaire understandable for all participants it is translated to Amharic for respondents who cannot read English (Appendix II).

Semi-structured Interview is used to collect data from both M-BIRR and CBE-BIRR employees. The interview includes sixteen major questions and there are also other questions raised during the interview. Moreover additional data is collected from the agents using semi-structured interview and it has twelve questions used as a guide to stimulate the discussion.

3.5 Data analysis and Interpretation

According to Creswell (2014) data analysis is “studying the organized material in order to discover inherent facts. The data are studied from as many angles as possible to explore the new facts”.

Depending on the nature of the collected data, data analysis can be done in different ways. Analysis of Qualitative data such as interview or focus group transcripts is highly dependent on researcher’s interpretation skills, knowledge and the research context. However, quantitative data analysis is based on statistics and independent of the researcher (Bhattacharjee, 2012).

In this study the questionnaire is distributed through Google forms and in printed format. Online filled questionnaires are automatically analyzed with Google forms and it provides the results in tables and graphical representations. On the other hand printed questionnaires are analyzed using SPSS V20.0 and Excel.

The analyzed data is interpreted and presented in graphical representations and frequency distribution tables. Qualitative data gathered through interview and observation is discussed in relation to each factor that affects actual usage of agent banking.

3.6 Reliability and validity of the study

In scientific research triangulation is one method of ensuring reliability, the researcher should use different methods of data collection from different sources. The same question might be asked in

different expression or the same data might be collected using different methods i.e. questionnaire and interview or other methods (Jonker & Pennink, 2010)

In this study the researcher tries to triangulate the collected data in different ways. As you may see from the questionnaire (Appendix I) used, the same questions are asked in different statements. In addition to the responses from participants during the questionnaire and interview, the researcher had the chance to observe actual activities and communications between customers and service providers.

Another measure of reliability in qualitative study is saturation. Saturation can be defined as the level at which the possibility of finding or collecting new information has become extinct (Jonker & Pennink, 2010). Based on this concept extensive interview sessions are made with agents and service providers. However, the chance of getting new information from the interviewees was highly diminishing and became almost the same.

Validity in qualitative study can be checked using various techniques i.e. spending “prolonged time”, “peer debriefing”, “triangulation” and “member checking” are among the techniques to check validity in qualitative study (Creswell, 2014). Some techniques like “prolonged time” require the researcher to spend longer time with the participants of the study.

In this research “peer-debriefing” and “member checking” are used to check the validity of the result. The combined draft of the result is reviewed by the two companies’ experts who were involved in the data collection stages of this study.

In order to check the appropriateness and understandability of the questionnaire pilot testing is used. The pilot test includes ten respondents from CBE, Mekanisa branch. Reliability of questionnaires used in pilot test results cronbach Alpha 0.725 whereas the final questionnaire distributed has reliability of 0.802. According to Tavakol & Dennick (2011), acceptable value of Alpha is ranging from 0.70 to 0.95.

Chapter Four

4. Result and Discussion

In this chapter data representation, analysis and interpretation are discussed. In this section response rate, demographic data of respondents, Perceived Economic factor indicators, Perceived usefulness indicators, Perceived ease of use indicators, Perceived trust indicators and Perceived risk indicators are discussed.

Finally, the researcher developed a model that can describe the relationship and impact of identified factors on the actual usage of agent banking in Ethiopia.

4.1 Response rate

Table 2: Response rate

Respondents	Distributed	Collected	Percentage %
Customers	150	144	96%
Total	150	144	96%

Source: Research data

This section described the response rate of the distributed questionnaires. As showed in table 2 a total of 150 questionnaires, (120 questionnaires are distributed through Google forms and the remaining 30 questionnaires are in printed format) are prepared. From 150 questionnaires, 144 questionnaires are filled and returned but 6 questionnaires are not returned and excluded.

4.2 Demographic Data of Respondents

Respondents Age

Table 3: Respondents age

Age (years)	Frequency	Percentage %
18 to 30	59	41%
31 to 45	60	42%
46 to 60	22	15%
Above 60	3	2%
Total	144	100%

Source: Research data

In demographic data age (see table 3), income (see table 4) and educational level of respondents (see table 5) are included. Based on the collected data 59 or 41% of the respondents are between the age of

18 and 30 years, 60 (42%) of the respondents are adults whose age is between 31 and 45 years and the remaining 22 (15%) and 3 (2%) are between the age limits of 46 to 60 and above 60 respectively.

Respondents' Income

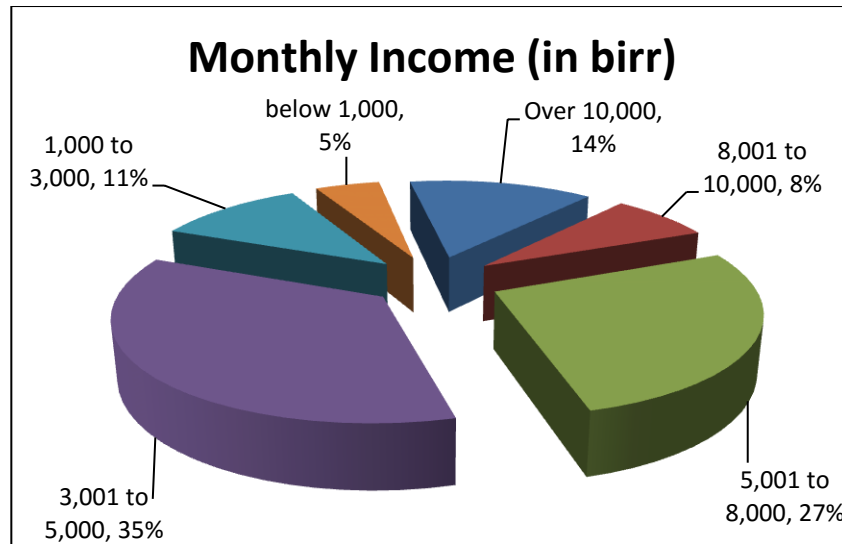


Figure 6: Respondents' Income

Even though income and savings are related to each other, higher level of income can't imply higher level of saving. According to Tobin (2012), the main reason that his respondents were not using agent banking was lack of surplus money. But making the existing transaction using mobile phone does not need additional amount of income.

As table 4 and figure 6 showed that from the total respondents 20 (14%) have monthly income of over 10,000 birr, 11 (8%) of the participants earn monthly income of birr 8,001 to 10,000, 39 (27%) participants have monthly income of 5,001 to 8,000 birr monthly, 51 (35%) and 16 (11%) of participants get 3,001 to 5,000 and 1,000 to 3,000 birr monthly. From the whole participants only 5% of them make below 1,000 birr per month.

Table 4: Respondents income

Monthly Income (in birr)	Frequency	Percentage (%)
Over 10,000	20	14%
8,0001 to 10,000	11	8%
5,001 to 8,000	39	27%
3,001 to 5,000	51	35%
1,001 to 3,000	16	11%
below 1,000	7	5%
Total	144	100%

Source: Research data

Respondents Level of Education

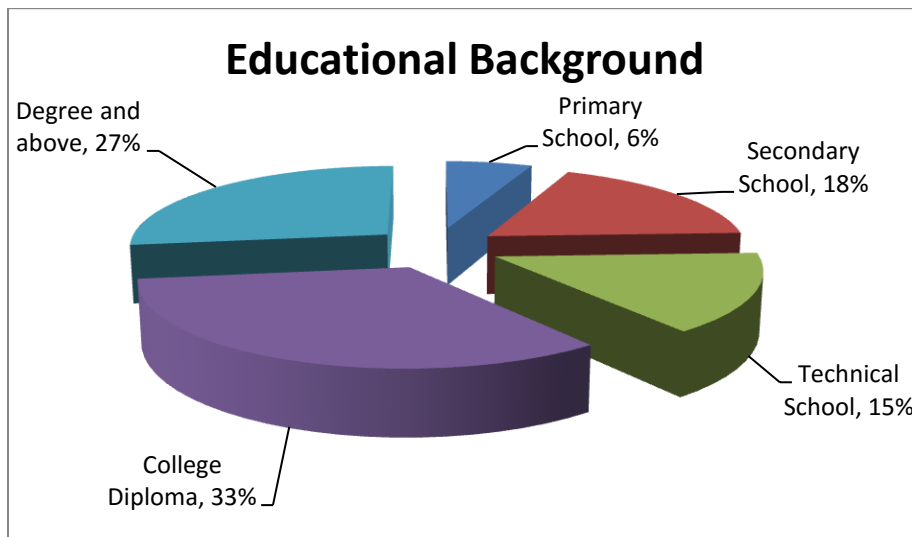


Figure 7: Respondents' Educational Background

Many researches showed that literacy highly affects the performance of agent banking. Participants of this study are educationally composed of 6 % primary, 18% secondary, 15% from technical School, 33% diploma and 27% degree or above (see table 5).

Table 5: Educational Background of Respondents

Educational level	Frequency	Percentage (%)
Primary School	9	6%
Secondary School	26	18%
Technical School	22	15%
College Diploma	48	33%
Degree and above	39	27%
Total	144	100%

Source: Research data

4.3 Perceived Economic factor

Affordability of Agent banking service

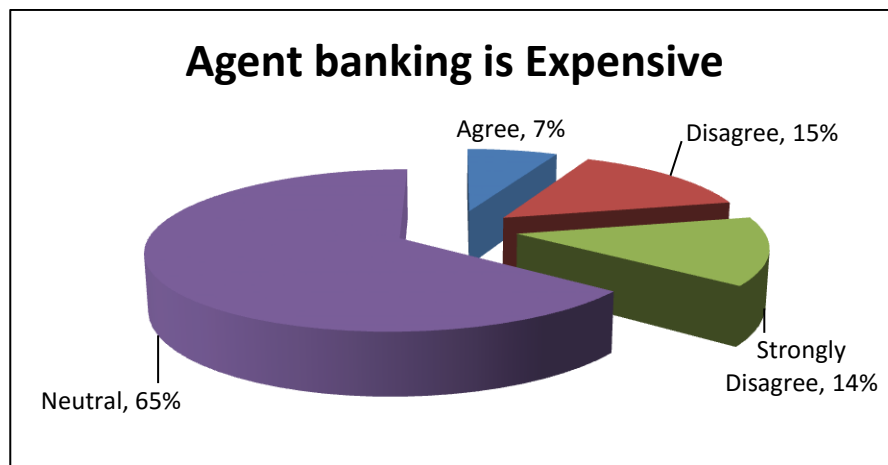


Figure 8: Perceived Economic Factor Indicators

Being expensive is a subjective concept; it depends on the income, attitude and other factors related to the person. From table 6 we can understand that only 7% of the respondents have said agent banking is expensive but 29% of the respondents agreed that agent banking service is not expensive. On the other hand 65% of the participants chose to be neutral, which showed that majority of the participants have no information on the issue. Based on the study of Lietz (2008) respondents tend to choose middle point or neutral, when there is no “don’t know” option and they don’t have enough information about the question.

According to head of mobile and agent banking department at Addis Saving and Credit Institution (M-BIRR), there is no fee to open and maintain mobile money account. But there is a slight service charge for money transfer based on the amount of money transferred.

In contrast, manager of mobile money department at CBE-BIRR stated that in order to promote this service, currently there is no charge to open and maintain mobile money account and even it's free to transfer money. However, agents under both service providers earn commission per every transaction.

Table 6: Perceived Economic Factor Indicators

Response	Frequency	Percentage (%)
Strongly Agree	-	-
Agree	10	7%
Neutral	93	65%
Disagree	21	15%
Strongly Disagree	20	14%
Total	144	100%

Source: Research data

Cost of using banking service

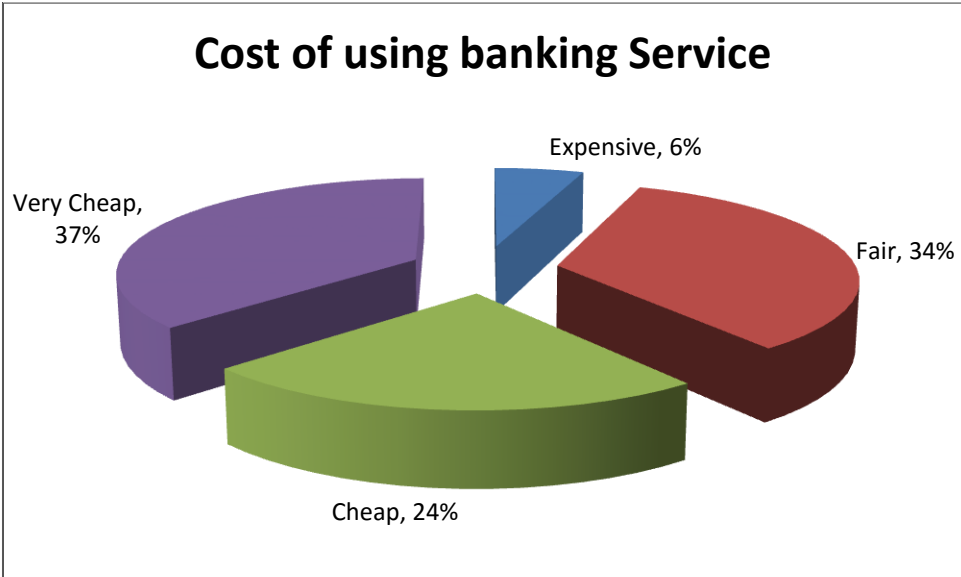


Figure 9: Perceived Economic Factor Indictors (CUBS)

According to the collected data (see table 4) 51% of the respondents have monthly income of below birr 5,000 but for the question whether bank service charges are expensive or not, 34% and 53% of the respondents said that it is cheap and very cheap respectively. 49% of the respondents consider the bank service charges are fair (see table 7).

Table 7: Perceived Economic Factor Indicators (CUBS)

<i>How do you determine the cost of using banking service?</i>		
Response	Frequency	Percentage (%)
Expensive	8	6%
Fair	49	34%
Cheap	34	24%
Very Cheap	53	37%
Total	144	100%

Source: Research data

4.4 Perceived Usefulness

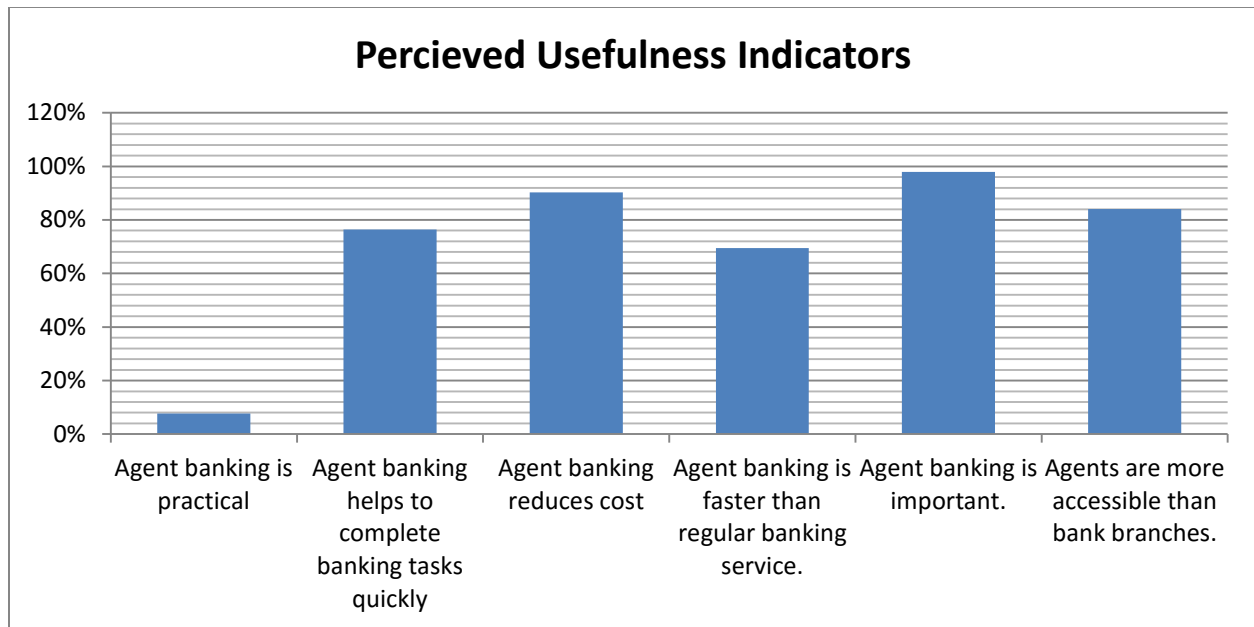


Figure 10: Perceived Usefulness Indicators

Questions under perceived Usefulness section are about customers’ perception towards the benefits of Agent banking. As indicated in table 8 among 144 participants 11 (8%) of them believe that agent banking is actually useful / practical. Since the major aim of agent banking is to provide banking service at convenient locations, 110 (76%) of the respondents have agreed that agent banking helps customers to complete banking services quickly.

Banking services has related cost like transportation cost especially in rural areas, where bank branches are not accessible. Safety is also another concern when bank branches are not located to near the

customers. According to participants' response, 130 (90%) of them believed that agent banking reduce these expenses.

It is known that Agent banking has various benefits especially for developing countries like Ethiopia. As repeatedly stated, it enables to provide accessible financial services with minimum cost. Even though the service is not well implemented and available, from the total respondents 69% and 84% of them believe that agent banking is faster than regular banking service and it is more accessible than regular banking branches respectively.

One of the major factors that affect accessibility of new technology is language. Based on my observation and the information gathered from experts at both organizations (CBE-BIRR and M-BIRR), the service providers tried to make the service available in different languages. Currently CBE-BIRR has six language choices i.e. Amharic, English, Afaan Oromoo, Tigrigna, Somali and Afar. Whereas, M-BIRR is providing its services through four languages i.e. English, Amharic, Tigrigna and Afaan Oromoo. However, to use this service, customers must know how to read and write one of the available languages and this can be considered as major challenge regarding accessibility.

Table 8: Perceived Usefulness Indicators

Indicators	Frequency	Percentage (%)
Whether agent banking is practical	11	8%
Whether Agent banking helps to complete banking tasks quickly	110	76%
Whether agent banking reduces cost	130	90%
Agent banking is faster than regular banking service.	100	69%
Agent banking is important.	141	98%
Agents are more accessible than bank branches.	121	84%

Source: Research data

4.5 Perceived Ease of use

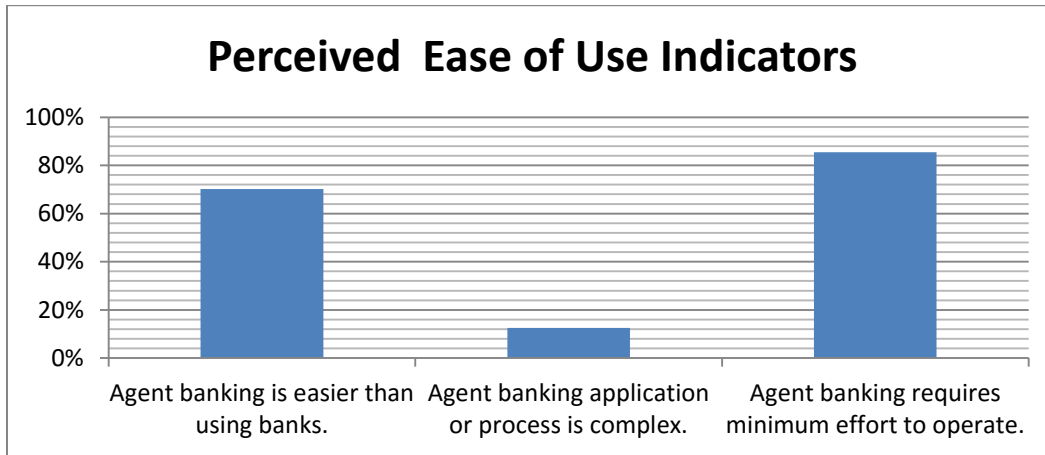


Figure 11: Perceived Ease of Use Indicators

Banking sector in Ethiopia is at its developmental stage in terms of technology and distribution compared with other countries. But recent technologies like core-banking, ATM, mobile banking and other services make it more accessible and easy.

As shown in table 9 and figure 11, 70% of the participants recognized that agent banking is easy and 85% of them believed that it only needs minimum effort to operate. Though 13% of the respondents said the process of making transactions is complex, the process is more like recharging mobile balance or sending air time to other people however, the process has a bit longer steps. For instance with CBE-BIRR, making money transfer needs five easy steps and it will take less than a minute with good telecom network.

Table 9: Perceived Ease of use Indicators

Indicators	Frequency	Percentage (%)
Agent banking is easier than using banks.	101	70%
Agent banking application or process is complex.	18	13%
Agent banking requires minimum effort to operate.	123	85%

Source: Research data

4.6 Perceived Trust

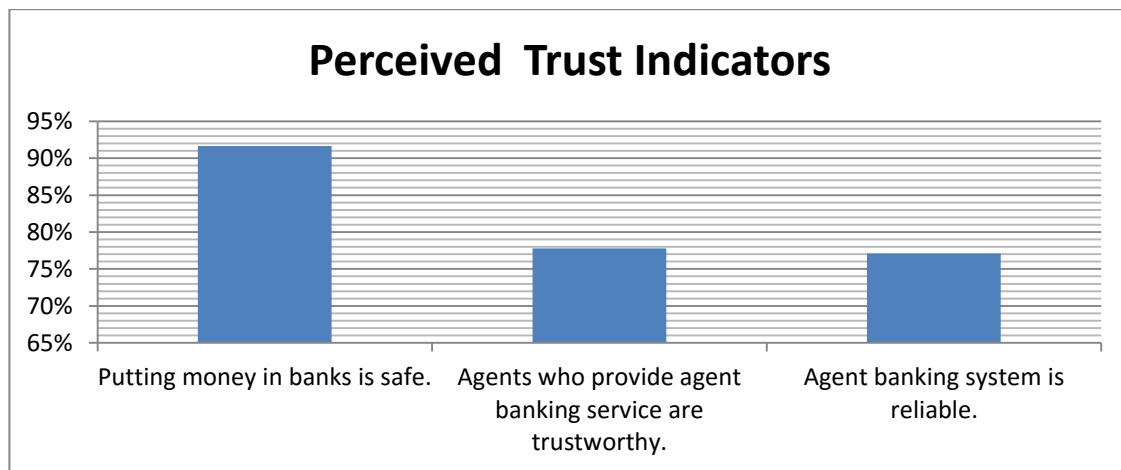


Figure 12: Perceived Trust Indicators

As it is presented in table 10, 132 (92%) of the participants agreed that putting money in banks is safe and 112 (78%) of them have trust on agents. In addition 111 (77%) of the respondents have positive attitude regarding the system reliability of agent banking (see figure 12).

NBE directive number FIS/01/2012 has given high emphasis on the financial safety of customers' and it discussed details of requirements that any financial institution who is interested in agent banking business should follow. According to the directive, the financial institution is responsible not only for its action but for its agents too. Some issues discussed in the directive include:

Financial institutions must provide training about prevention of money laundering and terrorist financing and shall ensure their agents comply with proclamation number 657/2009.

Financial institutions must have a written agreement with the agents and must provide the certificate of agency and should check the following requirements are met:

- a) The business should be well established and have known source of fund.
- b) The business must have good infrastructure and human resource.
- c) The agent should bring police certificate that can insure the agent has never engaged criminals related with finance, fraud, honesty or integrity and has acceptable reputation.
- d) Audited financial statements for at least the last one year.
- e) Liquidity capacity of the agent to make transactions should be checked and other matters that affect the service should be checked.

Table 10: Perceived Trust Indicators

Indicator	Frequency	Percentage (%)
Putting money in banks is safe.	132	92%
Agents who provide agent banking service are trustworthy.	112	78%
Agent banking system is reliable.	111	77%

Source: Research data

Participants of this study were asked about their criteria to trust agents. The result indicated that 62 (43%), of the respondents chose the experience of the agents in this service and 30 (21%) of them prefer to trust agents based on the bank they are working with while 42 (29%) of the participants trust agents based on their intimacy with the agent. 10 (7%) of the respondents have their own criteria like owner’s past crime records and the agent’s business success (see table 11).

Table 11: Perceived Trust Indicators

<i>What is your Criteria to Trust Agents?</i>		
Indicator	Frequency	Percentage (%)
Experience in Agency banking business.	62	43%
the bank they are working with.	30	21%
Intimacy with the agent.	42	29%
other	10	7%
Total	144	100%

Source: Research data

4.7 Perceived Risk

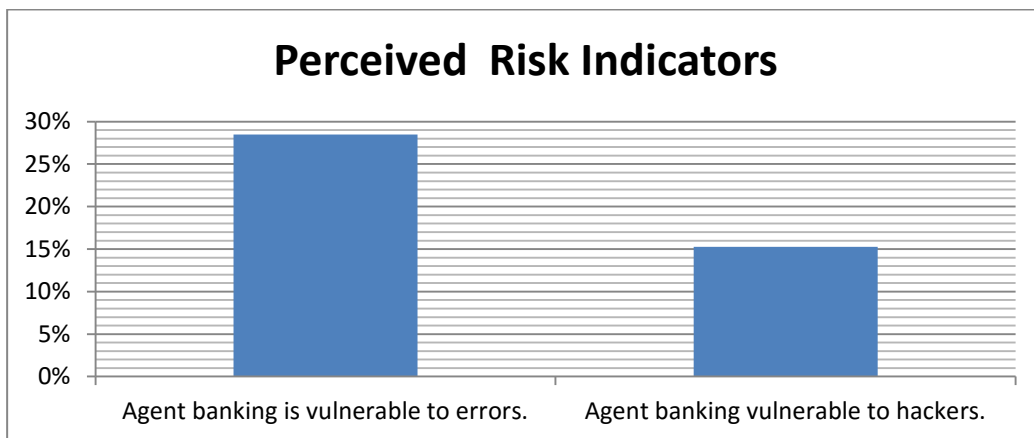


Figure 13: Perceived Risk Indicators

Perceived risk is one of the major factors for mobile and agent banking technology. According to Nganga & Mwachofi (2013) financial technologies has performance and financial risk. Performance risk is expectation of losing access to the service when the user is in need and financial risk is uncertainty related with losing in funds because of fraud.

The collected data summarized in table 12 stated that, 41(28%) of the respondents perceived that agent banking is vulnerable to errors as well as 22(15%) of them believe agent banking is vulnerable to hackers attack.

In order to reduce both financial and performance risk National bank of Ethiopia has exhaustively listed security requirement that financial institutions must follow. According to both experts at M-BIRR and CBE-BIRR there is no fraud attempt reported until the date of interview.

Senior reconciliation officer of CBE affirmed that, his company treats the agent banking system equally with the bank's core-banking system and information security department is responsible to monitor it.

Regarding vulnerability to errors, most customers' concern is if they wrongly transfer money to unintended person, I discussed this issue with experts at CBE-BIRR and M-BIRR.

Manager of mobile money at CBE-BIRR explained that this issue is one of their challenges nowadays and they have built a method to reverse such transactions. Thus when a customer report such incident to the agent, the agent forward the case to the CBE branch and if the branch consider the claim is genuine it will write a formal letter to the CBE-BIRR department and they will take appropriate measures.

In the case of M-BIRR, reversal of wrongly transferred money is a bit harder. As head of mobile and agent banking department at M-BIRR explained, when customers report such kind of transactions, first they check if the recipient is M-BIRR user or not. If the recipient is M-BIRR user the only way they can reverse the transaction is with his/her consent, otherwise it is impossible. But if the recipient is unregistered to M-BIRR they will reverse the transaction automatically before the recipient withdraws the money.

Table 12: Perceived Risk Indicators

Indicator	Frequency	Percentage (%)
Agent banking is vulnerable to errors.	41	28%
Agent banking is vulnerable to hackers.	22	15%

Source: Research data

4.8 Actual use

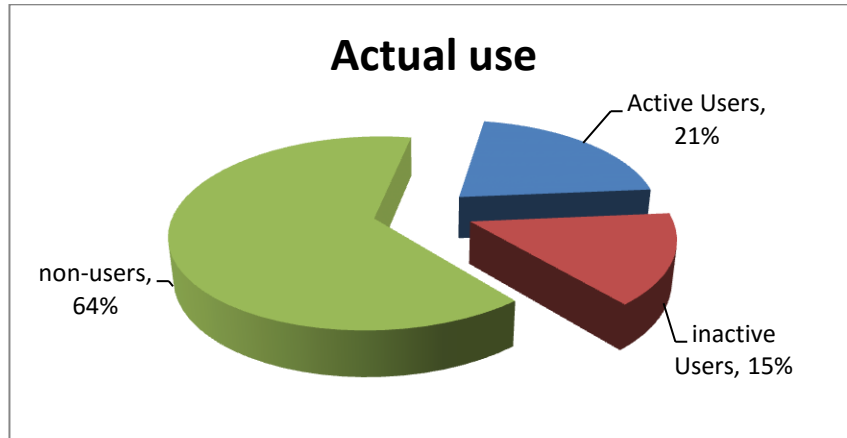


Figure 14: Actual Usage of Agent Banking

Actual usage of Agent banking is affected by the above discussed factors. Tobbin (2012) identified five factors that are perceived economic factor, perceived Usefulness, perceived Ease of use, Perceived trust and perceived risk. Basically these factors are adopted from technology acceptance model developed by Fred Davis in 1985.

As table 13 indicates, from the total participants, 52 (36%) are using the agent banking service but 92 (64%) of the respondents have never used agent banking. However even from the registered 36% of users only 21% of them are active user while 15% of the users are registered for the first time but they are not actively using the service.

CBE's senior reconciliation officer also indicated that the total number of CBE-BIRR users is 423,545 as of April 14, 2018. Among these users only 277,339 are active users and the remaining 146,206 (34.5%) customers are inactive users.

Several factors and challenges have been raised from service providers, agents and customers for this poor performance of agent banking service.

Table 13: Actual Usage of Agent Banking

Indicators	Frequency	Percentage (%)
Active Users	30	21%
inactive Users	22	15%
non-users	92	64%
Total	144	100%

Source: Research data

Base on the collected data and analysis the model (figure 5) is developed and it show the major factors that affect the agent banking performance in Ethiopia.

4.9 Factor Analysis

In order to test the theoretical model, Partial Least Squares (PLS) model is used in two different stages to analyze the relationship between the observed items and the constructs. The first stage is measurement model and it examines the relationship between the observed items (external variables) and the factors or constructs (Bhakar, et al., 2012).

Measurement model is tested through validity and reliability. It checks whether the right measures are selected to describe the relationship in the model (Bhakar, et al., 2012).

On the other hand the second stage, Structural model evaluates the relations between latent constructs (major variables). Structural model can be tested by analyzing path coefficients between the constructs. Predictive ability of a given model can be shown by path coefficients (Bhakar, et al., 2012).

In Partial Least Squares (PLS) model there two types of measures, reflective and formative measures. The major difference between these two measures is that, in reflective model constructs causes variance in its reflective indicators while formative indicators cause variance in the construct.

In addition, indicators in reflective measure are related and interchangeable. Omission of single indicator does not have major impact on the result its construct. However, indicators of formative measure are mostly independent of each other and cannot be used interchangeably.

According to Cenfetelli & Bassellier (2009), formative measure is suitable to study cause and effect analysis and identify the impact of each indicators on the construct. Interpretation of Formative measure should not only be rely on the analysis of significant weights, rather it should be interpreted through

multicollinearity test, number of indicators, possible co-occurrence of negative and positive indicator weights, the absolute versus relative contributions made by a formative indicator and nomological network effects.

Initial Model

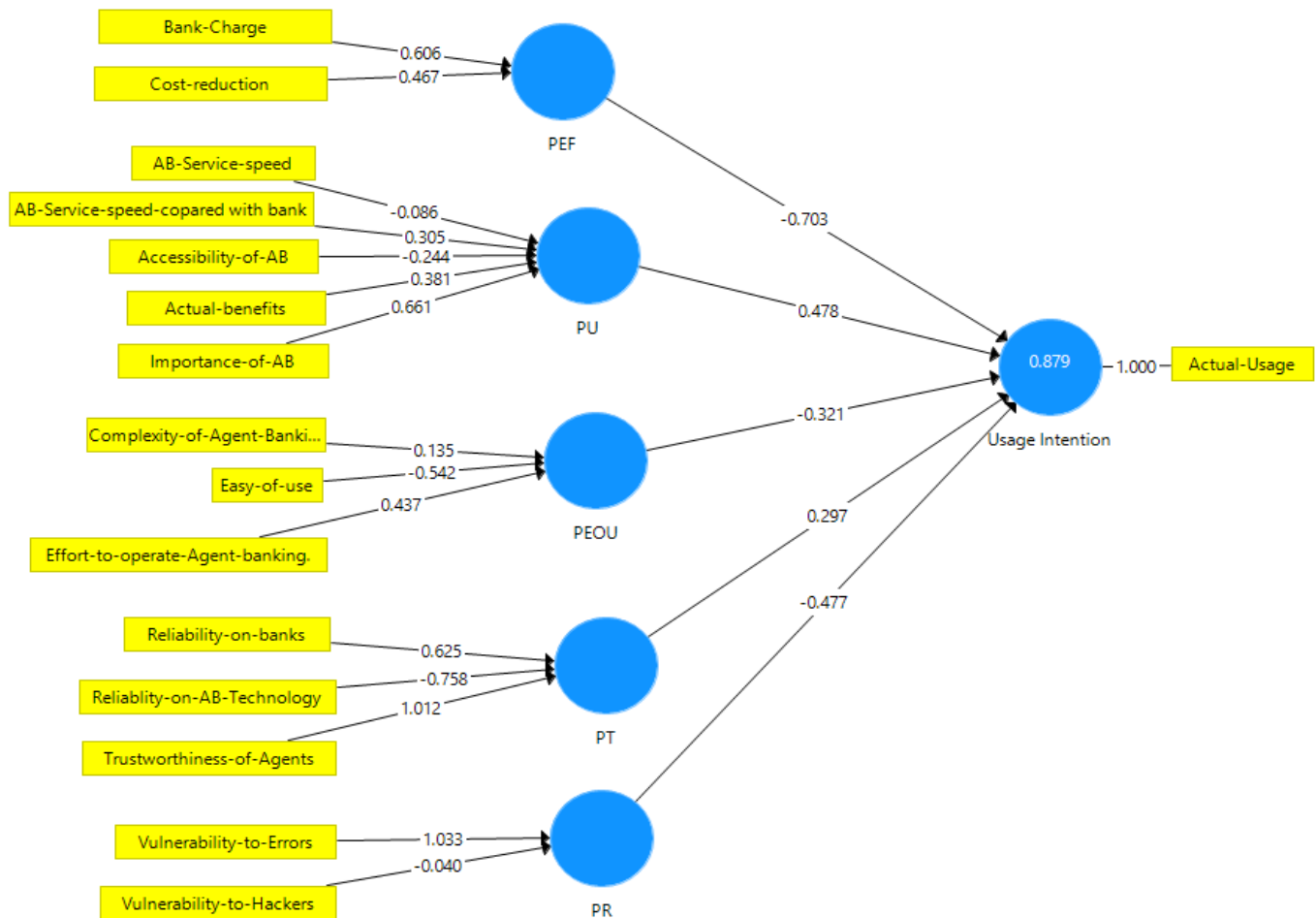


Figure 15: The Initial PLS Model

The initial model (figure 15) is designed using Smart PLC version 3.2.7. As clearly seen it shows the contribution of indicators (in this case external factors) on the major variables as well as on the usage intention construct. In this model each indicator /external factor is independent and causes variance on its respective construct because of this reason formative measure is applied.

According to Cenfetelli & Bassellier (2009), to analyze and interpret formative measurement there are five tests that should be carried out to examine and interpret the model.

1. Multicollinearity test

Collinearity problem occurred when there is strong correlation between indicators and it can be measured by Variance Inflation Factor (VIF). There are different acceptable values for VIF i.e. below 3.33 Diamantopoulos and Sigauw (2006) as cited in Cenfetelli & Bassellier (2009) and 10.00 (Hair et al. 1998 and Mathieson et al., 2001) as cited in (Cenfetelli & Bassellier, 2009).

Multicollinearity can be caused by conceptual redundancy among the indicators. Thus indicators will have lower path weights but high degree (above 0.90) of Correlation between them which shows that there is multicollinearity problem (Cenfetelli & Bassellier, 2009).

As shown in Table 14, there are number of indicators having VIF result of above the acceptable value, 3.33 and this implies that there is a strong correlation between these indicators. According to Cenfetelli & Bassellier (2009), such problem can be avoided by removing indicators which are conceptually overlapping with high degree of correlation.

Table 14: Initial Model Indicators

Construct	Items/ Indicators	Weights	T-Statistics	VIF
Perceived Economic Factor	Bank Charge	0.606	4.015	2.160
	Cost reduction	0.467	2.982	2.160
Perceived Usefulness	Agent Banking service Speed	-0.086	0.449	9.801
	Agent Banking Service speed compared with bank	0.305	1.516	8.889
	Accessibility of Agent Banking	-0.244	1.648	3.727
	Actual benefits	0.381	2.702	3.350
	Importance of Agent Banking	0.661	6.765	3.057
Perceived Ease of Use	Complexity of Agent Banking application	0.135	0.828	4.818
	Ease of use	-0.542	3.263	4.193
	Effort to operate Agent banking	0.437	4.998	1.842
Perceived Trust	Reliability on banks	0.625	6.508	2.406
	Reliability on Agent Banking Technology	-0.758	3.989	3.753
	Trustworthiness of Agents	1.012	5.895	4.840
Perceived Risk	Vulnerability to Errors	1.033	11.406	3.327
	Vulnerability to Hackers	-0.040	0.366	3.327

2. Effect of the number of indicators for formatively measured construct

The number of indicators in formative measurement has a great influence on indicators' statistical significance and their weight. If there are number of indicators for a given construct, it is more likely those indicators will have non-significant weights (Cenfetelli & Bassellier, 2009).

In order to tackle problems related with number of indicators and create a model that includes all indicators effectively; the researcher should identify distinct set of indicators under independent formatively measured constructs. If the problem persists removal of indicators with lower wait is one of the choices (Cenfetelli & Bassellier, 2009).

3. Co-occurrence of negative and positive indicator weights

Indicators of the same construct may have negative and positive weights. This can be occurred when there is a suppressor effect, which is occurred when an indicator shares more variance with another indicator than its construct (Cenfetelli & Bassellier, 2009).

Whenever there is co-occurrence of negative and positive indicator weights the researcher should investigate for suppressor effect through Collinearity test. If there are indicators collinear with other indicators and if there is a suppressor effect, those indicators should be removed (Cenfetelli & Bassellier, 2009).

4. Absolute versus relative indicator Contributions

Indicators with relatively small contribution or weight compared with other indicators are not always insignificant. These indicators may have significant absolute contribution if they are assessed independently. Absolute contribution of a given indicator can be evaluated by the correlation between the indicator and its construct and theoretical overlap between indicators (Cenfetelli & Bassellier, 2009).

5. Nomological network effects and construct portability

Portability of a construct is also another major issue in interpretation of formative measurement. It describes the relative invariance of a construct's indicator weights when there is a change in constructs nomological network. Some amounts of variance in indicators weights are acceptable but significant change of weights imply that there is a problem in constructs generalizability.

Final model

The initial model (figure 15) of the study is examined and interpreted through the above discussed five major tests. After a thorough test non-significant indicators which have multicollinearity problem are removed and the final model is drawn as shown in figure 16 and table 15 shows weights, T-statistics and VIF of indicators selected for the final model.

Table 15: Final Model Indicators

Construct	Item	Weights	T-Statistics	VIF
Perceived Usefulness	Actual benefits	0.365	3.166	2.659
	Importance of Agent Banking	0.687	6.206	2.659
Perceived Economic Factor	Bank Charge	0.606	4.108	2.160
	Cost reduction	0.467	3.023	2.160
Perceived Ease of Use	Complexity of Agent Banking application	0.614	6.503	1.835
	Effort to operate Agent banking	0.477	4.964	1.835
Perceived Trust	Reliability on banks	0.628	5.859	2.391
	Trustworthiness of Agents	0.435	3.938	2.391
Perceived Risk	Vulnerability to Errors	1.000		1.000

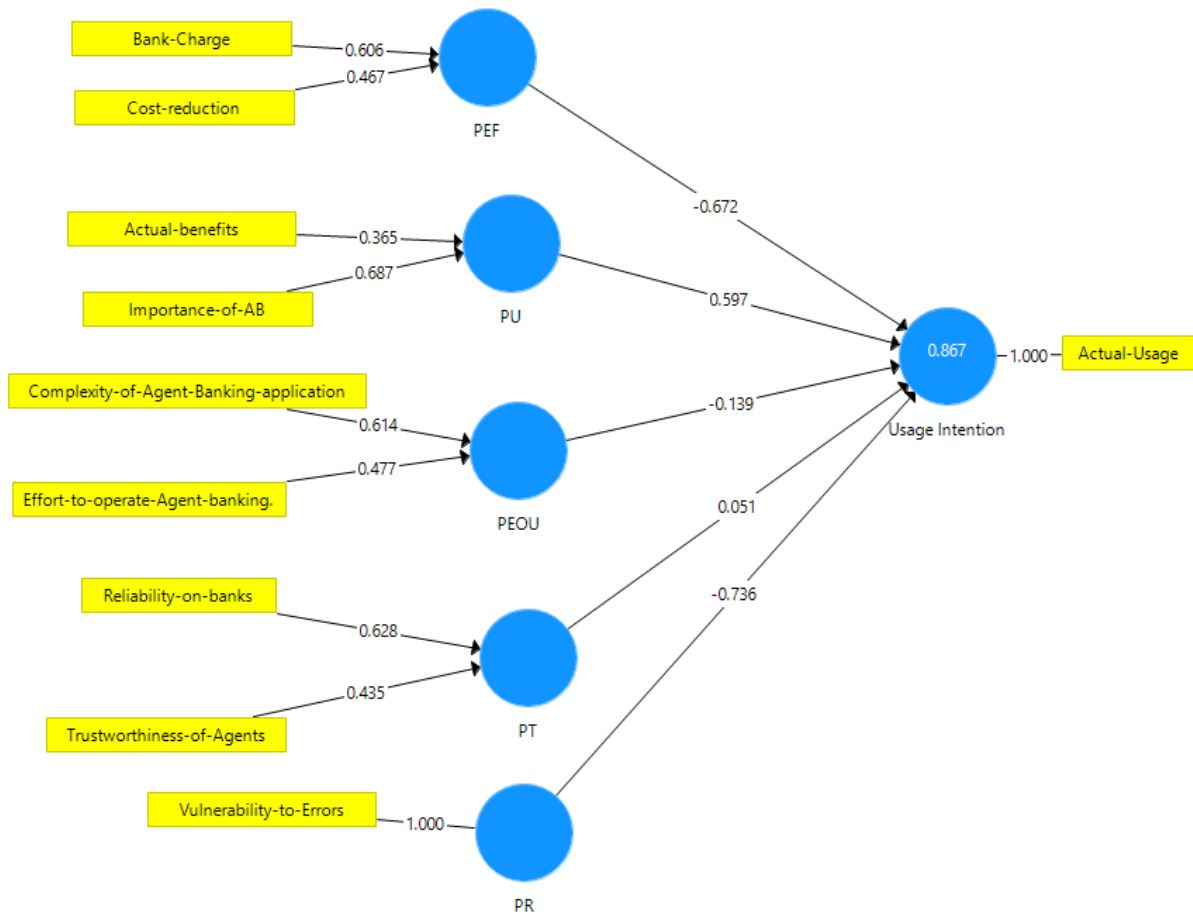


Figure 16: Final PLS Model

4.10 Discussion

4.10.1 Hypothesis Testing

In this sub-section hypotheses formulated under conceptual framework section are discussed and tested against the result of this research.

H1: Bank charge and cost reduction has a positive impact on actual usage of Agent banking service.

According to the first hypothesis bank service charge and cost reduction of Agent banking has a positive impact on the actual usage. Thus, when there is higher bank service charge customers are inclined to use agent banking service. On the other hand cost reduction benefit has the ability to attract customers to the agent banking service.

However, the result of this research showed that these indicators have a statistically significant but negative weight, which implied that increase in the two indicators results a negative impact on the actual

usage. This phenomenon could be occurred because of customers' misunderstanding of formal banking service with the agent banking service (i.e. customers might consider agent banking as one of the conventional banking service).

H2: Actual benefits, service efficiency, service speed, Importance of Agent Banking and Accessibility of Agent banking has positive impact on actual usage of Agent banking.

Many of the indicators of hypothesis 2 are removed because of statistical insignificance and multicollinearity problem. On the final model only two indicators (Actual benefits and importance of Agent banking service) are remained under Perceived Usefulness construct.

As a result, these indicators and perceived usefulness construct have statistically significance weight and positive impact on actual usage.

H3: Ease of Use has a positive impact on actual usage of agent banking. However, Effort required to operate agent banking application and Complexity of the Application has a negative impact on the actual usage of Agent banking.

Perceived ease of use had three indicators among them one indicator (ease of use) is removed because of multicollinearity problem. Apparently as shown in the model the remaining two indicators (Effort required to operate agent banking application and complexity of the application) resulted a negative weight.

Even though the amount of the weight is minimal, considering their absolute contribution we can't remove such weights in formative measure. The negative weight implied that, increase in those indicators have a reverse impact on the usage intention.

H4: Trust to the bank/service provider, Trust to agents and trust to the technology have positive impact on the actual usage of Agent banking.

Trust to agent banking technology is removed from the model because of statistical insignificance and Collinearity problem. Whereas, the other two indicators under Perceived trust construct are considered significant and they have positive impact on the usage intention/actual usage of agent banking.

H5: Vulnerability to Errors and Vulnerability to Hackers have negative impact on the actual usage of agent banking.

The developed model has proved that vulnerability to Errors indicator has significant negative impact on users' intention to use agent banking technology but the other indicator, Vulnerability to Hackers was found insignificant and had multicollinearity issue so that it is removed from the final model.

4.10.2 Factors affecting agent banking performance in Ethiopia

Cost of using banks/ Bank charges

In Ethiopia, Using bank is fairly cheap. For instance; according to Senior Reconciliation Officer at CBE, in commercial bank of Ethiopia, which is the biggest and most dominating bank with over 1,200 branches, deposit to third party account is free of charge and the service charge for money remittance without account is 23 birr up to 3000 birr plus one birr per additional 1,000 birr. There are large number of bank customers who are using both bank account transfers and remittance.

On the other hand there are many people in rural areas of Ethiopia who receives regular remittance from their families in urban areas. Thus, if using bank to send money is relatively expensive, the senders might encourage his/her beneficiaries to use the agent /mobile money/ service which in return increases the number of agent banking customers.

Cost of using banks is not only linked with bank service charge rather, there are other costs that directly or indirectly have monetary value. For instance in Kenya the bank require service charge for account holders when customers withdraw money from their account (Appendix III shows product and service tariff of Equity Bank). On the contrary in Ethiopia account holders can withdraw and deposit money at any branch and they also earn minimum of 7% saving interest payment annually.

Paperwork related with operating bank account can also be considered as a cost. In Ethiopia anyone with valid identification card can open bank account by filling single form and can use the account immediately. According to Ngugi et al., (2010) one of the success factors of M-PESSA in Kenya is the lower literacy level of Kenyan rural communities to handle all the paperwork related with opening and operating formal bank account.

Actual benefits

Agent banking (mobile money) technology is capable to ease lives of many people living in rural areas without access to formal financial institutions. However, benefits of agent banking could be recognized only when its services are actually available. Currently the major benefit customers are getting from

both M-BIRR and CBE-BIRR is mobile balance recharge and based on my observation it is the same with other service providers.

Based on the collected data, presently 92% of the participants believed that agent banking is not actually useful. Even though money transfer and payment for goods and services are available, most of recruited merchants and agent are not actively working. Thus, as a new technology it needs extensive advertisement and awareness creation and some kind of interoperability is mandatory between service providers to make them accessible to the user.

Illiteracy

Illiteracy is both a challenge and factor that affect agent banking service performance. Illiteracy is one of the factors that affect customers' perception (perceived ease of use) towards agent banking service. Since agent banking service is available only through USSD channel, it requires customers to be literate. At least reading writing skill is mandatory to use this service. Agents of both service providers claim that illiteracy has a big impact on customer recruitment.

Mobile network quality

According to Tobbin (2012), mobile network fluctuation is one of the barriers for agent banking service. However, this study is done in Addis Ababa and the network quality of respondents' place is enough to run USSD requests but this doesn't mean telecom network doesn't affect performance of agent banking service.

Both studies of Tobbin (2012) and Nganga & Mwachofi (2013) show that, quality of telecom network is the major factor in rural areas. If participants of this study were included from rural areas of the country quality telecom network would be the major factor.

Trust

In financial business trust is the biggest concern of both customers and service providers. Trust in agent banking can be seen from three perspectives i.e. trust to the bank, trust to the agent and trust to the technology (Tobbin, 2012).

As per the discussion with the manager of mobile money and senior reconciliation officer at CBE, the bank has serious requirements about trust and it is mandatory to insure agents' trustworthiness. In addition to complying with NBE directive, banks have their own requirements. For example, to be agent

of CBE-BIRR, one must have a good relationship with the bank and the business should not be against the moral values of the society.

According to Tobbin (2012), customers' trust can be transferred from service providers to the new technology. In Kenyan case, customers trust to the MNO, Safaricom was transferred to M-PESSA.

On the other hand, head of mobile and agent banking department at M-BIRR said that "as M-BIRR is a new technology, we have faced a big challenge from customers to accept the service but our company, Addis Credit and saving institution has good level of trust among the society and it really helped us to promote the service". CBE is also used its reputation to promote CBE-BIRR to the society.

Risk

Risk is "the consumer's subjective expectation of suffering a loss in pursuit of a desired outcome" (Nganga & Mwachofi, 2013). Every business has its own risk but financial businesses are more risky because they involve the most liquid asset, money.

The central bank and both service providers are paid due attention to reduce risk related with agent banking service. As a new technology, simple fraud incident can cause major loss of customers trust on the service.

According to Nganga & Mwachofi (2013), naturally risk has different dimensions (i.e. performance, physical, financial, psychological, social and time loss) and it was one of the major factors for poor mobile and agent banking technology adoption in Kenyan cities of Likuyani and Karaina.

4.10.3 Agent banking service penetration in Ethiopia

In Ethiopia from the total population, 51,224,000 or 51% are users of mobile phone (ITU, 2016). On the other hand, for this huge population the total number of bank branches across the country is only 3282 in which most of them are located in cities. This shows there is lack of formal financial services and this problem can be addressed effectively and economically by developing accessible ways, like agent banking.

Penetration of Agent banking can be measured by the number of agents across the country. As of march 2017 there are seven actively working agent banking service providers and at the end of 2017 these companies had a total of 12,590 agents/ branches (NBE, 2017). Compared with neighboring countries (e.g. Kenya) this service has lower rate of penetration but unlike the formal bank branches it takes very

short time to address larger portion of the society. From the establishment of the first modern bank, Commercial bank of Ethiopia it took 74 years to reach 3282 total bank branches across the country, whereas agent banking reached 12,590 agents /branches in just a few years (see table 16).

Table 16: Total Number of Agents

Service Provider	Number of Agents /Branch	Remark
CBE-BIRR	2992	
ENDE BANK	NA	Number of Agents couldn't be found
M-BIRR	4815	
Hello cash	4400	3400 in cooperative bank of Oromia and the remaining 1000 in Wegagen
HIBIR	240	
ABAY BEDEJE	134	
AWASH WALLET	9	
Total	12590	

Source: NBE & different official websites

4.10.4 Challenges and prospects of Agent banking Service in Ethiopia

4.10.4.1 Challenges of Agent banking service from Service providers' perspective

On the discussion with agent banking service providers the following challenges are raised and discussed in detail with selected experts at CBE-BIRR and M-BIRR.

Awareness of both Agents and customers

Experts at CBE-BIRR and M-BIRR articulated that one of the major challenges they are facing currently is poor level of awareness from both agents and customers' side. This can be explained in different ways. According to head of mobile and agent banking department at M-BIRR, some agents become ignorant and they don't even want to listen about it and others are overambitious and expect exaggerated amount of commission and they easily get disappointed.

The commission is based on the number of transaction they made, in order to get higher commission they need to recruit more customers and increase the number of transactions. Customers' misunderstanding about the capability of the service has also a big impact on agents' performance.

Initial deposit

Agents should deposit some amount of money to start the business and the amount of money depends on the service provider. For instance CBE-BIRR requires an initial deposit of 10,000 birr in which 2,000 birr is blocked and 8,000 will be used to make transactions. Whereas, M-BIRR requires initial deposit of 5,000 birr to start operation as an agent.

Most business owners prefer to invest this money on their current business instead of agent banking which is new and uncertain investment.

Document requirement

As stated in the NBE's regulation of agent and mobile banking services directive, agents must bring Crime clearance certification from the local police station. All the three experts told me that this is the first challenge when they try to recruit agents.

Another subjective and mandatory condition stated in the directive is, agents shall perform KYC norms on their customer to support to the effort of fighting terrorist financing and anti-money laundering. According to manager of mobile money at CBE-BIRR, most agents have no idea about these crimes and the bank incurs trainings costs.

There are also other document requirements for business owners to be an agent. This includes Tax identification number (TIN) and renewed trade license.

Budget constraints and Competition

As a new technology based business, agent banking needs more money for promotion and advertisements. Most agent banking services in Ethiopia follow bank-led model (initiated and run by banks) so that they get enough budget from the bank.

However according to head of mobile and agent banking department at M-BIRR, M-BIRR is organized and run by five government owned micro finances. Whose major aim is not profit maximization rather they are built to provide saving and credit services for the poor. Because of this, lack of enough budget is a serious problem at M-BIRR and it is a big problem for the company to promote its services.

Another issue discussed during the interview with domain experts is competition from other service providers. However, senior reconciliation officer of CBE argued that currently they can't even talk about competition and they are not even close to the market and it will remain untapped for longer period of

time. On the other hand, head of mobile and agent banking department at M-BIRR said that some agent banking service providers promote their service against the directives and laws of the country. Sometimes they tried to impress customers by depositing money to new customers and promoting different services that are not actually available on their platform.

Unfortunately, among the customers, there is a tendency of generalizing all agent banking service providers as the same. Disappointed customers by false and exaggerated advertisements are not willing to try other mobile money service providers.

4.10.4.2 Challenges of agent banking service from Agents' perspective

Lack of Advertisement by service providers

Even though there are multiple mobile money service providers, most of them are weak in promoting their services. The researcher observe that many people even bank customers have no idea about the existence and benefits of this service while others misunderstand it with mobile banking (additive mobile banking).

One of the agents and owner of bar and restaurant also believes that, if the service providers promote the service well, it will be easy for agents to recruit new customers. He also said that since it is not the main business he is working on, it is hard to work on it from awareness creation to the actual service.

Availability of new and additional services

“Almost all mobile money service providers have the same and partially available service packages” Tekabe, Owner of ZHS trading. In order to increase number of customers, mobile money service providers should include new and usable services that can address problems of the community.

Illiteracy of customers

According to Ngugi et al., (2010) one of the major success factors of M-PESSA in Kenya is lower level of literacy to handle paper works related with bank account. However, in Ethiopia mobile money account holders need to be more literate than bank account.

Based on the information from agents, literacy level is another barrier in recruiting customers. To use mobile money one must know how to read and write one of the language alternatives. Currently there is no way that illiterates can use the service.

4.10.4.3 Challenges of agent banking service from Customers' perspective

Based on the researcher's observation the following challenges are identified and discussed from customers perspective.

Availability of actual and usable services: currently there are only limited services available, i.e. cash deposit and withdrawal, fund transfer. Although the technology is capable of facilitating various activities like utility payment and buying goods and services, currently the most actively working service is mobile air time top up.

Dependability of the service: customers are not dependent on this service because they might not have found agents or registered merchants when they are in need. Even some agents and merchants have not actually started the service.

Interoperability of mobile money service providers: Interoperability is also another issue. At this time all agent banking service providers are working independently i.e. customers must get their provider to transact. In addition, head of mobile and agent banking department at M-BIRR said that some agent banking services are using the same name but they are not Interoperable to each other. According to the expert, Cooperative bank of Oromia Hello cash and Wegagen Hello cash are fully independent and they are not interoperable.

4.10.4.4 Challenges of agent banking service from stakeholders

Licensing process at NBE: to engage in agent banking permission should be granted from the national bank of Ethiopia and the process takes time. According to senior reconciliation officer of CBE, it took more than six months to get the full permission from NBE and it takes three months for M-BIRR.

NBE's Limitations on the amount of deposit and amount of transaction: within a day a given customer can transact a maximum of six thousand birr and the maximum amount of deposit cannot exceed 25,000 birr and no interest is calculated for the deposited amount.

Police clearance certificate: as discussed earlier Police crime clearance certificate is mandatory for agents and in Addis Ababa it takes a minimum of two days to get the said certificate.

Network: agent banking service is highly dependent on the telecom infrastructure. Currently all agent banking service providers are using USSD channel and they also use SMS as a confirmation for each transaction. Thus unavailability of quality network is one of the major challenges for service providers.

Readiness of utility service providers: according to many customers if they can pay their utility bills using their mobile phones the service will be really useful. But as the experts explained, utility companies are not ready financially and technologically to implement electronic payment system.

4.10.5 Prospects of Agent Banking service in Ethiopia

Agent banking in Ethiopia has many opportunities. The technology is very applicable for developing countries because it doesn't require huge investment and appeals to the society. A number of favorable factors can be mentioned for the development of agent banking in Ethiopia. Telecom coverage is growing fast. According to ITU (2016) mobile phone users are increased from 7.87% in 2010 to 50.51% in 2016. Since agent banking is extremely attached with mobile network coverage, growing number of cell phone users is one opportunity for this technology.

Secondly large number of Ethiopian population is still living in rural areas and remains unbanked. According to World Bank (2017) total number of rural population in sub-Saharan African countries was 61.73%. Thus such areas can be financially included easily using agent banking because it only needs mobile network for its implementation.

Experts at each service provider have different perspective on the future of agent banking in Ethiopia. For instance, head of mobile and agent banking department at M-BIRR and manager of mobile money at CBE-BIRR believed that agent banking in Ethiopia has good progress and bright future. However, senior reconciliation officer of CBE has different idea on this issue, he believed that with currently available services and speed of expansion it will not be successful and cannot achieve its goals.

Chapter Five

5. Conclusion and Recommendation

5.1 Conclusion

The result of this study shows different factors took part to the poor performance of agent banking in Ethiopia. Identified factors are discussed in group based on the Technology acceptance model. The five major determinant of usage intention are perceived economic factor, perceived usefulness, perceived ease of use, perceived trust and perceived risk.

Currently NBE is trying to develop financially inclusive economy by formulating annual financial inclusion strategy and it supports and pushes financial institutions to address previously unbanked areas. However, poor level of infrastructure development is a major barrier for banks to open branches in remote areas.

Agent banking can address the unbanked society because of problems like poor infrastructure development. However there are factors that affect its performance directly or indirectly. Among this factors cost of using banks, actual benefits of agent banking, illiteracy, awareness, mobile network quality, trust, risk and advertisement are identified and discussed in this study.

Currently there are a number of challenges that are affecting the implementation of agent banking in Ethiopia. The major challenges presented in this research includes; Lack of Awareness of both agents and customers, NBE regulations and limitations, lack of budget, Poor advertisement, unavailability of new and additional services, illiteracy, dependability of the service and Poor network quality.

The ultimate goal of implementing agent banking is providing accessible financial services with affordable cost. However, accessibility of this service is highly depends on the availability of agents. At the end of 2017, the total number of agent has reached 12,590 across the country.

5.2 Recommendation

Building financially inclusive economy is a key for the development of every country. Regardless of their location all citizens should contribute and get benefit from the financial sector. However in developing countries like Ethiopia this can't be achieved through the conventional way of banking.

Agent banking is a new technology for Ethiopia. Currently many financial institutions are interested in this technology and they are entering to the market. However, because of many reasons, some of which

are explained earlier, the service is not advancing as expected. Based on the collected information, the researcher recommends the following points:

- At this time the service is provided only with USSD channel which requires reading and writing skills. In order to tackle this problem the service should be available with voice or other channel to illiterate customers who can't read and write.
- Actual services deviate from the promoted ones on media. If all services are actually available it will be more interesting to users.
- Presently most of the merchants are not using the service so registered merchants has to start the service.
- In addition to currently available services additional services should be added.
- It needs more advertisement, promotion and other awareness creation programs to attract customers.

5.3 Limitation of the study

This study is limited to selected commercial bank of Ethiopia branches and agents located in selected areas of Addis Ababa. Even though the sector is homogeneous it would be more accurate and inclusive if it covers all areas of the country. Time, cost and lack of enough information from both service providers and customers are among the limitations.

5.4 Suggestion for Future Research

This study explains the factors, challenges and prospects of agent banking in Ethiopia from service providers, agents and customer point of view. In addition, a model is developed that can explain the impacts of various factors on actual usage of agent banking. Further researches can be done by participating customers from different parts of the country and other service providers to identify additional factors.

References

- Aduda, J., Kiragu, P., & Ndwiga, J. M. (2013). The relationship between agency banking and financial performance of commercial banks in Kenya. *Journal of Finance and Investment Analysis*, 2(4), 97-117.
- Aregahegne, E. (2015). *The Challenges And Prospects Of Mobile And Agent Banking In Ethiopia* (Master's thesis, St. Mary's University). Unpublished.
- Asfaw, H. A. (2015). Financial Inclusion through Mobile Banking: Challenges and Prospects. *Research Journal of Finance and Accounting*, 6(5).
- Atandi, F. G. (2013). Challenges of agent banking experiences in Kenya. *International Journal of Academic Research in Business and Social Sciences*, 3(8), 397.
- Bhakar, S. S., Bhakar, S., Bhakar, S., & Sharma, G. (2012). The impact of co-branding on customer evaluation of brand extension. *Prestige International Journal of Management & IT-Sanchayan*, 1(1), 21.
- Bhattacharjee, A. (2012). *Social science research: Principles, methods, and practices*.
- Cenfetelli, R. T., & Bassellier, G. (2009). Interpretation of formative measurement in information systems research. *MIS quarterly*, 689-707.
- Chiteli, N. (2013). Agent banking operations as a competitive strategy of commercial banks in Kisumu city. *International journal of business and social Science*, 4(13).
- Creswell, J. W., & Creswell, J. D. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Davis, F. D. (1985). A technology acceptance model for empirically testing new end-user information systems: Theory and results (Doctoral dissertation, Massachusetts Institute of Technology).
- Dawson, C. (2002). *Practical research methods: a user-friendly guide to mastering research techniques and projects*. Oxford: How to Books.
- Demirgüç-Kunt, A., Klapper, L. F., Singer, D., & Van Oudheusden, P. (2015). The global financial inclusion database 2014: Measuring financial inclusion around the world.
- Dermish, A., Kneiding, C., Leishman, P., & Mas, I. (2012). Branchless and mobile banking solutions for the poor: a survey of the literature.
- Dev, S. M. (2006). Financial inclusion: Issues and challenges. *Economic and political weekly*, 4310-4313.

Ferdous, J., Al Mosharrafa, R., & Farzana, N. (2015). Agent Banking in Bangladesh-A New Era in Financial Institution by Enhancing Customers' Accessibility and Profitability of Banks. *The International Journal of Business & Management*, 3(3), 206.

Gentry, L., & Calantone, R. (2002). A comparison of three models to explain shop-bot use on the web. *Psychology & Marketing*, 19(11), 945-956.

Greener, S. (2008). *Business research methods*. BookBoon.

Gugsa, A. (2015). *Assessment of adoption of agency banking innovation in Ethiopia: barriers and drivers* (Master's thesis, Addis Ababa University). Unpublished.

International Telecommunications Union, ITU (2016). Statistics. Retrieved December 2, 2017, from <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>

Jonker, J., & Pennink, B. (2010). *The essence of research methodology: A concise guide for master and PhD students in management science*. Springer Science & Business Media.

Kabir, M. R. (2013). Factors influencing the usage of mobile banking: Incident from a developing country. *World Review of Business Research*, 3(3), 96-114.

Kanini, D. (2011). *Factors influencing the adoption of agent banking innovation among commercial banks in Kenya* (Doctoral dissertation, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI).

Kpodar, K., & Andrianaivo, M. (2011). ICT, financial inclusion, and growth evidence from African countries.

Lai, P. C. (2017). The Literature Review of Technology Adoption Models And Theories For The Novelty Technology. *JISTEM-Journal of Information Systems and Technology Management*, 14(1), 21-38.

Lietz, P. (2008). *Questionnaire design in attitude and opinion research: Current state of an art*. Jacobs Univ., FOR 655.

Mola, T. (2016). *Factors Influencing the Adoption of Agent Banking In Selected Private Banks* (Master's thesis, Addis Ababa University). Unpublished.

National Bank of Ethiopia (NBE), (2017). National Financial inclusion strategy.

National Bank of Ethiopia Directive (2012). Regulation of Mobile and Agent Banking Services Directive No.FIS/01/2012. Addis Ababa, Ethiopia

Nganga, S. I., & Mwachofi, M. M. (2013). Technology adoption and the banking agency in rural Kenya. *Journal of Sociological Research*, 4(1), 249-266.

Ngugi, B., Pelowski, M., & Ogembo, J. G. (2010). M-PESA: A case study of the critical early adopters' role in the rapid adoption of mobile money banking in Kenya. *The Electronic Journal of Information Systems in Developing Countries*, 43.

Ombutora, E. K., & Mugambi, F. (2013). Role of agency banking on the performance of banking agent entrepreneurs: A case study of Co-operative Bank Co-op Jirani in Kibera, Nairobi. *International Journal of Arts and Entrepreneurship*, 1(5), 243-256.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education*, 2, 53.

Tobbin, P. (2012). Towards a model of adoption in mobile banking by the unbanked: a qualitative study. *info*, 14(5), 74-88.

United Nations data (2016). Country profile. Retrieved December 24, 2017, from <http://data.un.org/CountryProfile.aspx?crName=62 ethiopia>.

World Bank (2017). Rural population. Retrieved November 5, 2017, from <https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS>.

Appendix I

Questionnaire

I am Henos Demeke, post graduate student at Addis Ababa University College of natural sciences, school of information science. Currently I am conducting research on “Challenges and Prospects of Agent Banking in Ethiopia the case of M-BIRR and CBE-BIRR”.

Therefore this is kindly request to participate in this research by filling this questionnaire. The information you provided in this study is only used for academic research purpose and remains confidential. In addition you are not required to write your name or other identifiers and your honest responses are valuable for accurate results.

Thank you for your cooperation.

The major focus of this study is to identify challenges, prospects and factors affecting agent banking usage performance in Ethiopia. Agent banking means providing different banking services through accessible retail businesses (e.g. hello cash, M-BIRR) Agent banking can be provided through different channels but this research mainly focused on the mobile phone based channel.

Part I. Background information

Questions under this section are focused on general usage of financial institutions. Please put tick mark (✓) in the box.

1. Do you have agent banking (mobile money) account?
 - a. Yes
 - b. No
2. If your answer is “NO” for question number 1 what are the reasons that you don’t have agent banking (mobile money) account?
 - a. Lack of money to save
 - b. Agent banking service providers or agents are not accessible
 - c. The initial deposit and other fees are unaffordable
 - d. Keeping money at home is safe
 - e. Other (please specify)_____

3. How do you determine the cost of having bank account?
 - a. Very expensive
 - b. expensive
 - c. Fair
 - d. cheap
 - e. Very cheap
4. Do you have mobile phone? If yes, for how long do you own it?
 - a. Less than 1 year
 - b. 1 – 2 years
 - c. More than 3 years but less than 5 years
 - d. More than 5 years
 - e. Don’t have phone
5. What type of mobile phone do you have?
 - a. Smart phone
 - b. Featured phone
6. Do you have any idea about agent banking?
 - a. Yes
 - b. No

(If your answer is “No” go to question number 13)
7. Do you have any friend or family member who uses agent banking service?
 - a. Yes
 - b. No
8. Do you have mobile banking in any bank or financial institution?
 - a. Yes
 - b. No
9. Do you know how much money required to open bank account?
 - a. Yes
 - b. No

10. Do you know how much money required to be registered for agent banking service?
 a. Yes b. No
11. How do you describe mobile network quality in your area?
 a. Very good d. poor
 b. Good e. very poor
 c. Average
12. What are your criteria to trust agents?
 a. Proximity to your community d. Base on the bank /Service provider they are working with
 b. Intimacy with the agent
 c. Experience on the agent banking business e. Other (please specify).....

13. Do you have mobile banking service provided by banks and linked with bank account?
 a. Yes b. No
14. If your answer for question number 13 is yes, which types of mobile banking channel are you using?
 a. USSD c. Web based
 b. Application based

Part II. Usage of Agent Banking

Part two of this questionnaire is about usage of agent banking. Please indicate your opinion by putting tick mark (✓) at the front of each question.

No.	Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Agent banking is practical.					
2	Using agent banking helps to complete banking tasks faster than bank.					
3	Using agent banking reduces cost.					
4	Using agent banking is faster than regular banking service.					
5	Agents are more accessible than bank branches.					
6	Using agent banking is easier than using banks.					
7	Agent banking is important.					
8	Agent banking costs more than bank account.					
9	Agent banking application or process is complex.					

10	Putting money in banks is safe.					
11	Agents who provide agent banking service are trustworthy.					
12	Agent banking system is reliable.					
13	Agent banking requires minimum effort to operate.					
14	Agent banking is vulnerable to errors.					
15	Agent banking is vulnerable to hackers.					

Part III. Personal Information

The following questions are focused on your personal profile. Please put tick mark (✓) in the box.

1. Your age group?

a. 18 to 30 years <input type="checkbox"/>	c. 46 to 60 years <input type="checkbox"/>
b. 31 to 45 years <input type="checkbox"/>	d. Above 60 years <input type="checkbox"/>
2. Gender

a. Male <input type="checkbox"/>	b. Female <input type="checkbox"/>
----------------------------------	------------------------------------
3. Education level you have completed.

a. Primary <input type="checkbox"/>	d. College diploma <input type="checkbox"/>
b. Secondary <input type="checkbox"/>	e. University degree or above <input type="checkbox"/>
c. Technical school <input type="checkbox"/>	
4. Your occupation

a. Government employed <input type="checkbox"/>	e. Student <input type="checkbox"/>
b. Private business owner <input type="checkbox"/>	f. Farmer <input type="checkbox"/>
c. Private business employee <input type="checkbox"/>	g. Unemployed <input type="checkbox"/>
d. Family business <input type="checkbox"/>	h. Other <input type="checkbox"/>
5. Monthly income?

a. Over 10,000 <input type="checkbox"/>	d. 3001 to 5,000 <input type="checkbox"/>
b. 8,001 to 10,000 <input type="checkbox"/>	e. 1,000 to 3,000 <input type="checkbox"/>
c. 5001 to 8,000 <input type="checkbox"/>	f. below 1,000 <input type="checkbox"/>
6. Source of income?

a. Remittance <input type="checkbox"/>	e. Other (please specify)
b. Salary <input type="checkbox"/>
c. Private business <input type="checkbox"/>	
d. Donation <input type="checkbox"/>	

Appendix II

Questionnaire (Amharic Version)

ጤና ይስጥልኝ። ሄኖስ ደመቀ እባላለሁ በአዲስ አበባ ዩኒቨርሲቲ በተፈጥሮ ሳይንስ ኮሌጅ ውስጥ የኢንፎርሜሽን ሳይንስ ተመራቂ ተማሪ ስሆን በአሁኑ ወቅት ጥናታዊ ፅሁፌን እየሰራሁ እገኛለሁ። የጥናታዊ ፅሁፌ ርዕስ“ የውክልና ባንክ አገልግሎት ተግዳሮቶችና መልካም ተስፋዎች በኢትዮጵያ” የሚል ሲሆን እርሶም ይህን መጠይቅ በትክክል በመሙላት ለዚህ ጥናት መሳካት የበኩሉን ድጋፍ እንዲያደርጉ በአክብሮት እየጠየኩ በዚህ መጠይቅ ላይ የሚሰጡት መረጃ ሚስጥራዊነቱ የተጠበቀና ለዚህ ጥናት አላማ ብቻ የሚውል መሆኑን ላረጋግጥሎት እወዳለሁ።

በዚህ መጠይቅ ላይስሞትንም ሆነ አድራሻዎን መጥቀስ አይጠበቅብዎትም።

አመሰግናለሁ።

ሀ. ስማርት ስልክ

ለ. የተለመደውና ስማርት ያልሆነ

6. ስለ ውክልና የባንክ አገልግሎት ሰምተው ያውቃሉ?

ሀ. አዎ

ለ. አላውቅም

7. የውክልና ባንክ አገልግሎት የሚጠቀም ወዳጅ ወይም ቤተሰብ አሉት?

ሀ. አለኝ

ለ. የለኝም

8. በባንኮች የሚሰጠውን የሞባይል ባንኪንግ አገልግሎት ይጠቀማሉ?

ሀ. አጠቀማለሁ

ለ. አልጠቀምም

9. የባንክ ሂሳብ ለመክፈት ምን ያክል ክፍያ እንደሚጠይቅ ያውቃሉ?

ሀ. አውቃለሁ

ለ. አላውቅም

10. ለውክልና ባንክ አገልግሎት ለመመዘገብ ምን ያክል ክፍያ እንደሚጠይቅ ያውቃሉ?

ሀ. አውቃለሁ

ለ. አላውቅም

11. በአካባቢዎ ያለውን የሞባይል ኔትዎርክ ጥራት እንዴት ይገመግሙታል?

ሀ. በጣምፈጣን

መ. ደካማ

ለ. ፈጣን

ሠ. በጣምደካማ

ሐ. መካከለኛ

12. የውክልና ባንክ አገልግሎት ለሚሰጡ ድርጅቶች / ሱቆች ያሉት ተዓማኒነት ምንላይ የተመሰረተ ነው?

ሀ. ለአካባቢው ባላቸው ቅርብት /ወዳጅነት

ለ. ከድርጅቱ /ከሱቁ ባለቤት ጋር ባሎት ቅርብት

ሐ. ድርጅቱ ይህን አገልግሎት በመስጠት ባለውልምድ

መ. አብረው የሚሰሩበት ባንክ /ተቋም ማንነት

ሠ. ሌላ ካለ ይግለጹልን

13. በባንኮች የሚሰጠውን የሞባይል ባንኪንግ አገልግሎት ይጠቀማሉ?

ሀ. አጠቀማለሁ

ለ. አልጠቀምም

14. ለ ጥያቄ ቁጥር 13 መልሶ አጠቀማለሁ ከሆነ፤ የሚጠቀሙት የትኛውን ቻናል ነው? (ከአንድ በላይ መምረጥ ይቻላል)

ሀ. (USSD) በመደወል የሚሰራውንና የትኛውም አይነት ስልክ ላይ መጠቀም ሚያስችለውን

ለ. (ANDROID/IPHONE APP) የአንድሮይድ /አይፎንስ አፕሊኬሽን

ሐ. (WEB BASED) በዌብ ብራውዘር

መ. ሌላ ካለ ይግለጹልን

ለ. የውክልና ባንክ አገልግሎትን በተመለከተ

በግራ በኩል ከተዘረዘሩት ጥያቄዎች በማንበብ በጥያቄው ትይይዩ ካሉት አማራጮች የሚስማሙበት ቦታ ላይ

(✓) ምልክት ያድርጉበት።

ተረቁ.	ጥያቄ	በጣም እስማማለሁ	እስማማለሁ	ግድ የለኝም	አልስማማም	በጣም አልስማማም
1	የውክልና ባንክ አገልግሎት ጠቃሚ ነው።					
2	የውክልና ባንክ አገልግሎት ቀልጣፋ የባንክ አገልግሎት ለማግኘት ጥሩ አማራጭ ነው።					
3	የውክልና ባንክ አገልግሎት መጠቀም ወጪ ይቀንሳል።					
4	የውክልና ባንክ አገልግሎት ከመደበኛው ባንክ የተሻለ ፈጣን ነው።					
5	የውክልና ባንክ አገልግሎት ከመደበኛው ባንክ የተሻለ ተደራሽ ነው።					
6	የውክልና ባንክ አገልግሎት ለአጠቃቀም ቀላል ነው።					
7	የውክልና ባንክ አገልግሎት አስፈላጊ ነው።					
8	የውክልና ባንክ አገልግሎት ከመደበኛው የባንክ አገልግሎት ተጨማሪ ወጪ ይኖረዋል።					
9	የውክልና ባንክ አጠቃቀሙም /ሂደቱ ውስብስብ ነው።					
10	ገንዘብ ባንክ ማስቀመጥ ከስጋት ነፃ እና አስተማማኝ ነው ብለው ያስባሉ?					
11	የውክልና ባንክ አገልግሎት የሚሰጡ ድርጅቶች / ሰቆች ታማኝ ናቸው።					
12	የውክልና ባንክ አገልግሎት በራሱ እምነት ሚጣልበት ነው።					
13	የውክልና ባንክ አገልግሎት ከመደበኛው ባንክ ለአጠቃቀም ቀላል ነው።					
14	የውክልና ባንክ አገልግሎት ለስህተት የተጋለጠ ነው።					
15	የውክልና ባንክ አገልግሎት ለኢንተርኔት ዘራፊዎች የተጋለጠ ነው።					

ሐ. ግላዊ መረጃ

1. እድሜ

ሀ. 18 - 30 ዓመት

ለ. 31 — 45 ዓመት

ሐ. 46 — 60 ዓመት

መ. ከ 60 ዓመት በላይ

2. ባታ

ሀ. ወንድ

ለ. ሴት

3. የትምህርት ደረጃ

ሀ. የመጀመሪያ ደረጃ

ለ. ሁለተኛ ደረጃ

ሐ. ቴክኒካል ት/ቤት

መ. ዲፕሎማ

ሠ. ዲግሪ

4. የስራ መስክ

ሀ. የመንግስት ሰራተኛ

ለ. የግል ድርጅት ባለቤት

ሐ. የግል ድርጅት ሰራተኛ

መ. ተማሪ

ሠ. ግብርና

ረ. ስራ ፈላጊ

ሰ. ሌላ ካለ ይግለጹልን.....

5. ወርሃዊ የገቢ መጠን

ሀ. ከ 10 000 በላይ

ለ. ከ 8001 -10 000

ሐ. ከ5 001 — 8 000

መ. ከ3001 — 5 000

ሠ. ከ 1 000— 3 000

ረ. ከ 1 000 በታች

6. የገቢ ምንጭ

ሀ. በሃዋላ የሚላክ ገንዘብ

ለ. ከመቀጠር የሚገኝ ደሞዝ

ሐ. ከግል ስራ የሚገኝ ገቢ

መ. ከእርዳታ የሚገኝ ገቢ

ሠ. ሌላ ካለ ይግለጹልን.....

.....

EQUITY BANK LIMITED PRODUCTS & SERVICES TARIFF GUIDE WITH EFFECT FROM 1ST MAY, 2014

PERSONAL ACCOUNTS							
	EQUITY ORDINARY ACCOUNT	PERSONAL CURRENT ACCOUNT	JUNIOR MEMBER ACCOUNT	REMITTANCE ACCOUNT	TEEN MEMBER ACCOUNT	ACHIEVERS STUDENTS ACCOUNT	SCHOOL FEES ACCOUNT
Retail Section							
Account opening balance	400	5,000	200	nil	200	nil	100
Minimum operating balance	nil	nil	200	nil	200	nil	100
Inter-branch cash withdrawal	150	150	150	150	150	150	150
Account closing fees	350	1,000	300	350	300	300	300
Counter cash withdrawal	100	100	2 Free in a year, additional 100	100	2 Free in a year, additional 100	100	4 Free in a year, additional 100
Corporate Section							
Account opening balance	5,000	10,000	200	3,000	200	nil	100
Minimum operating balance	nil	nil	200	nil	200	nil	100
Inter-branch cash withdrawal	150	150	150	150	150	150	150
Account closing fees	350	1,000	300	350	300	300	300
Counter cash withdrawal	100	100	2 Free in a year, additional 100	100	2 Free in a year, additional 100	100	4 Free in a year, additional 100
Counter cash withdrawal - Non Corporate Customers	300	300	300	300	300	300	300
BUSINESS ACCOUNTS							
	BUSINESS ACCOUNT	BUSINESS CURRENT ACCOUNT	INSTITUTION ACCOUNT	COLLECTION ACCOUNT			
Retail Section							
Account opening balance	1,000	10,000	10,000	10,000	10,000	10,000	10,000
Minimum operating balance	nil	nil	n/a	nil	nil	nil	nil
Inter-branch cash withdrawal	150	150	150	150	150	150	150
Account closing fees	300	1,000	1,000	300	1,000	1,000	1,000
Counter cash withdrawal	100	100	100	100	100	100	100
Counter cash withdrawal - Non Corporate Customers	300	300	300	300	300	300	300
Corporate Section							
Account opening balance	5,000	10,000	10,000	10,000	10,000	10,000	10,000
Minimum operating balance	nil	nil	nil	nil	nil	nil	nil
Inter-branch cash withdrawal	150	150	150	150	150	150	150
Account closing fees	300	1,000	1,000	300	1,000	1,000	1,000
Counter cash withdrawal	100	100	100	100	100	100	100
Counter cash withdrawal - Non Corporate Customers	300	300	300	300	300	300	300
SUPREME BRANCHES							
	EQUITY ORDINARY ACCOUNT	PERSONAL CURRENT ACCOUNT	BUSINESS/ INSTITUTION/ COLLECTION SAVINGS ACCOUNT	BUSINESS/ INSTITUTION/ COLLECTION CURRENT ACCOUNT	JUNIOR MEMBER ACCOUNT		
Account opening balance	30,000	50,000	200,000	200,000	200	200	200
Minimum operating balance	nil	50,000	200,000	200,000	200	200	200
Below minimum balance charge (p/m)	2,000	2,000	2,000	2,000	n/a	n/a	n/a
Account closing fees	2,000	2,000	2,000	2,000	300	300	300
Interbranch charges (non supreme customers)	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Fixed and Jijenge Account							
Fixed Account min bal	20,000						
Fixed Account min bal - corporate	50,000						
Fixed Deposit - Foreign currency	USD 5,000 (equivalent for other currencies)						
Hekima Milk Fixed Deposit min bal	100,000						
Hekima Milk Ordinary Account Monthly contribution	10,000						
Jijenge account min bal - all Branches	300						
Jijenge minimum monthly contribution	300						
Jijenge premature withdrawal	5% of the savings (minimum Kes 200 maximum Kes 5,000)						
Fixed deposit withdrawal	nil						
Jijenge Account withdrawal	nil						
Fixed deposit premature withdrawal	call rate applies						
FOREIGN EXCHANGE SERVICES							
Ledger fees	n/a						
Over the Counter Cash withdrawal fee	0.2% of transactional value, minimum US \$3						
Interbranch Cash withdrawal charge	0.4% of transactional value, minimum US \$3						
Cash deposit above US \$,000 charge	0.4% of transactional value, minimum US \$3						
Charges below minimum	USD 10 or Equivalent						
Stop payment - Foreign draft	Kshs. 1,500 or Equivalent						
FCY unpaid cheques - drawn on us	USD 25 or Equivalent						
FCY unpaid cheques - drawn on other banks	USD 15 or Equivalent						
Stop payment - FCY cheque	USD 15 or Equivalent						
Foreign Draft	Kshs. 600 or Equivalent						
Outgoing Foreign SWIFT Remittance	Kshs. 1,500 or Equivalent						
Incoming SWIFT remittance	Kshs. 600 or Equivalent						
Foreign cheques for collection - up to USD 20	Kshs. 300 or Equivalent						
Foreign cheques for collection - over USD 20	Kshs. 600 or Equivalent						
Travellers cheques (collection charge per leaf)	Kshs. 600						
Transfer From FCY to LCY and vice versa	Free						
Foreign Cheque Book	Kshs. 17.50 per leaf						
FCY cheques discounting	3% of value						
Courier charges FCY/ Travellers cheques	Kshs. 500						
Foreign Currency Account							
Account opening balance	100 USD/ equivalent						
Minimum operating balance	100 USD/ equivalent						
ALTERNATE DELIVERY CHANNELS							
	KSHS						
Visa and MasterCard (Debit Cards)							
Card Application	600						
Card replacement (Lost or Damaged)	600						
ATM Misstatement - Display	Free						
ATM Balance Enquiry - Display	Free						
ATM Withdrawal at Equity + Auto branches	30						
Card reissue due to pin forgotten	600						
Card Annual Fee	500						
Cash withdrawal (other Banks' Cards)	200						
Declined Cash Transaction (other Banks' Cards)	30						
Card Balance Enquiry (other Banks' Cards)	30						
POS Purchase	Free						
Cash Back withdrawal	25						
Bills Payment	30						
Visa Credit Cards							
Joining fee - Classic (Main card)	2,500						
Annual subscription fees - Classic (Main card)	2,500						
Annual subscription fees - Classic (Supplementary)	1,500						
Joining fee Gold (Main card)	7,500						
Annual subscription fees Gold (Main card)	4,500						
Annual subscription fees Gold (Supplementary)	3,500						
Credit card replacement fee (Classic)	1,000						
Credit card replacement fee (Gold)	1,500						
Eazy 24/7							
Eazy 24/7 Activation	Free						
Bill Payments	30						
Eazy 24/7 PIN Change/ Stop a card/ Language change	Free						
Eazy 24/7 Balance Enquiry/ Ministatement/ Enquiries & requests	10						
Eazy 24/7 Airtime Top-up	10						
Eazy 24/7 Funds Transfer (Equity to Equity)	30						
NBR, Mobile Network Operator Charges Apply							
E-banking							
Retail E-banking Subscription	1,200						
Corporate E-banking annual subscription & Maintenance	10,000						
Additional Token Key (Corporate ebanking)	3,500						
E-banking Funds Transfer - retail & corporate	50						
E-banking statement request (Self downloaded)	Free						
E-banking statement request (Printed by Bank)	50						
E-banking balance enquiry	Free						
E-banking -Cheque book/ Bankers cheque request	30						
E-banking PIN Regeneration	200						
NBR PIN Courier Fees Apply							
Transaction Fees and Charges							
	KSHS						
Mobile Bank Service charges	100						
Collection account charges per transaction	50						
Bulk notes over 500,000/=	0.25%						
Bulk coins over 10,000/=	0.25%						
Unpaid direct debits	150						
Dormant Account reactivation Fees	200						
Direct Debit failure charge	300						
Cheque Books & Bankers Cheques							
	KSHS						
Cheque Books - Small (inclusive 2.5 Stamp Duty) per leaf	17.50 per leaf						
Cheque Books - Large (inclusive 2.5 Stamp Duty) Per leaf	17.50 per leaf						
Counter Cheque (Retail)	300						
Counter Cheque (Supreme)	500						
Payment voucher (in-house cheque book) per leaf	17.50 per leaf						
Bankers Cheques - Customers	100						
Bankers Cheques - Non-Customers	1,750						
Cheque book issued commission (100 pages)	1,500						
Cheque stop payment commission	100						
Utility payments commission	100						
TRADE FINANCE							
Import Letters Of Credit							
Opening Commission	1% per quarter or part thereof minimum Kshs. 2,000						
SWIFT charges	Kshs. 3,000 for long message and Kshs. 1,500 for short message						
Amendment	Kshs. 2,000 plus swift charges						
Extension of the LC validity	1% per quarter or part thereof minimum Kshs. 2,000						
Increase in amount of credit	1% per quarter or part thereof minimum Kshs. 2,000						
Retirement commission	0.25% minimum Kshs. 2,000 max Kshs. 10,000						
Acceptance commission	1% per quarter or part thereof minimum Kshs. 2,000						
Post import Finance Commission	0.5% per quarter or part thereof plus applicable interest						
Extension of maturity of bill - LC	1% per quarter or part thereof						
Postage for LCs	Actual courier charges plus Kshs. 50						
Document Handling	Kshs. 500						
LC discharged unutilised	Kshs. 2,000						
Export Letters Of Credit							
Advising Commission	Kshs. 2,000						
Confirmation commission	0.5% per quarter or part thereof minimum Kshs. 2,000						
Amendment	Kshs. 2,000						
Extension Commission - Confirmed LC	0.3% per quarter or part thereof minimum Kshs. 2,000						
Extension Commission - Unconfirmed LC	Kshs. 2,000						
Increase of Amount - Confirmed LC	0.5% per quarter or part thereof minimum Kshs. 2,000						
Courier charges	Actual courier charges min Kshs. 4,000						
Acceptance commission - Confirmed LC	0.5% per quarter or part thereof minimum Kshs. 2,000						
Acceptance commission - Unconfirmed LC	0.25% minimum Kshs. 2,000 max Kshs. 10,000						
Retirement commission	0.25% minimum Kshs. 2,000 max Kshs. 10,000						
Discounting of Bills	1% per quarter or part thereof minimum Kshs. 2,000 plus applicable interest						
Import documentary Collections							
Document Handling	Kshs. 500						
Swift	Kshs. 1,500						
Amendment	Kshs. 2,000						
Retirement commission	0.25% minimum Kshs. 2,000 max Kshs. 10,000						
Availing of Bill	1% per quarter or part thereof minimum Kshs. 2,000						
Export Documentary Collection							
Document Processing	Kshs. 2,000						
Swift	Kshs. 1,500						
Courier charges	Actual courier charges min. Kshs. 4,000						
Retirement commission	0.25% minimum Kshs. 2,000 max Kshs. 10,000						
Discounting Commission	1% per quarter or part thereof minimum Kshs. 2,000 plus applicable interest						
Guarantees							
Bank guarantees	3% per annum min Kshs. 5,000						
Bill bonds	1% per annum min Kshs. 5,000						
Performance bonds	3% per annum min Kshs. 5,000						
Extension (bill bond) beyond one year	1% per annum min Kshs. 5,000						
Extension (other guarantees) beyond one year	3% per annum min Kshs. 5,000						
Amendment (all Guarantees)	Kshs. 1,000						
Custom Bonds	3% per annum min Kshs. 5,000						
Cancellation guarantee if not returned	Free						
Cancellation of returned guarantees	Free						
Structured Finance							
Deal Structuring Fees	0.5% of deal amount						
Collateral Management fees	As per Collateral Management						
LOAN & OTHER CREDIT FACILITIES							
ASSET FINANCE							
	Rates						
New vehicles	9.5% flat						
Second-hand Vehicles (Loans above 2,000,000)	10% flat						
Second-hand Vehicles (Loans below 2,000,000)	10.5% flat						
Public Schools	9.5% flat						
INSURANCE PREMIUM FINANCING							
	Rates						
Insurance Premium Finance (loans below 20,000)	10.5% flat						
Insurance Premium Finance (Loans between 20,000-999,999)	10.5% flat						
Insurance Premium Finance (Loans between 100,000-999,999)	9.5% flat						
Insurance Premium Finance (Loans above 1,000,000)	9% flat						
CONSUMER-SALARIED LOANS							
	Rates						
EquiLoan (Based on MoU)	16% to 20% p.a						
Salary Advance	20% flat						
Flexi Sale	20% p.a						
MORTGAGE PRODUCTS							
	Rates						
Mortgage	18% p.a						
Plot Purchase	19% p.a						
Project Financing	18% p.a						
MICRO PRODUCTS							
	Rates						
Micro Products	20% flat						
Fankisha Products	18% to 20% p.a						
GROUP Loans (Shatal)	20% flat						
GROUP Products (wukisha)	18% flat						
SME LOANS							
	Rates						
Working Capital and Business Overdrafts	18% to 20% p.a						
AGRICULTURE LOANS							
	Rates						
Commercial Agriculture	20% p.a						
Farm input loans	19% flat						
Kilimo biashara	12% flat						
Kilimo supa	19% flat						
Kilimo kisasa	16% flat						
Kilimo maendeleo	19% flat						
Loan application and credit evaluation (L.A.C.E) fee							
	Amount (Kshs.)	LACE					
	1-10,000	Kshs. 300					
	10,001-20,000	Kshs. 500					
	20,001-100,000	3%					
	1,000,001-3,000,000	4%					
	>3,000,001	3%					
	Repeat loans	3%					
Salary overdraft/LOD							
		Kshs.					
	Below 2,000	200					
	Above 2,000	10%					
Uncleared Effects							
		Kshs.					
	Below 10,000	300					
	Above 10,000	3%					

* All charges are exclusive of taxes

Revised in 2014

Equity Centre, 9th Floor, Hospital Road, Upper Hill P.O. Box 75104-00200 Nairobi Tel : +254-020-2262000 Fax : +254-020-2737276
Cell: 0711 026000 /0732 112000 info@equitybank.co.ke www.ke.equitybankgroup.com @KeEquitybank KeEquitybank



Equity Bank Limited is regulated by The Central Bank of Kenya