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FACTORS AFFECTING SLOW ADOPTION AND LOW USAGE OF MOBILE BANKING IN ETHIOPIA

A RESEARCH SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS IN BUSINESS ADMISNTRATION

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Declaration

I, Tigist Tigre, hereby declare that the thesis entitled: FACTORS AFFECTING SLOW ADOPTION AND LOW USAGE OF MOBILE BANKING IN ETHIOPIA is the outcome of my own effort and study and that all sources of materials used for the study have been duly acknowledged. This work is original in its nature and it is suitable for Submission in partial fulfillment of the requirement for the award of Degree in Masters Business Administration.

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This is to certify that the thesis prepared by Tigist Tigre entitled: factors affecting slow adoption and Low Usage of Mobile Banking in Ethiopia, and submitted in partial fulfillment of the requirements for the degree of masters of Business administration.

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Table of Contents

Abstract

This paper explores factors affecting slow adoption and usage of mobile banking in Ethiopia. The objective of the study was investigating factors affecting adoption and usage of mobile banking. The study was conducted on AAU graduate EMBA students and exploratory research design was employed in the study. The sample size for the research comprised 108 AAU graduate EMBA students, due to small number of target population a census was carried out. Data were collected through use of questionnaire; *an open ended* questionnaire *was designed to collect data. The return rate of* questionnaire *was 100%. Data was analyzed by open coding method. Conclusions were made and the result of the study indicated that, the major barriers Ethiopian banking industry faces in the adoption and usage of mobile banking are infrastructure, awareness, security, literacy, trust, perceived cost ,legal frame work, advertisement ,business model ,monopoly power of Ethio telecom ,Government support on ICT and demography. Lastly the Mobile banking service was found to possess relative advantages in comparison to traditional banking services. Such advantages included accessibility, saving of time, less cost, privacy and comfort. Consequently, the researcher suggests a series of measures which could be taken by the banking industry and by government to address various challenges identified that the bank undertake an aggressive marketing campaign to make customers aware of the service. The banks need to build the confidence of their customers. To prevent loss of personal/account information the bank should ensure that their system is secure to prevent hacking. There is a need to change the customer's perception through a well-structured advertisement and staff interaction in order to make them realize that the service is safe to use. Government should emphasis on supporting national ICT research and training center. Government should also facilitate condition for new entrants to the telecom business.*

Keywords: Mobile banking, TAM, commercial banks in Ethiopia

CHAPTER ONE

Introduction

1.1. Background of the Study

The traditional method of banking is gradually paving way for modern method of banking in the 21st century. This brings Mobile phone as an ideal medium through which banks can deliver a wide variety of services through service called mobile banking. Mobile banking is defined as a channel whereby the customer interacts with a bank via a mobile device, such as a mobile phone or personal digital assistant (Barnes and Corbitt, 2003). Mobile banking can also be considered as the convergence of mobile technology and financial services (Chung and Kwon, 2009). Mobile banking is a subset of banking as it allows everyone easy access to their banking operations via mobile handsets(Yu and Fang, 2009).

With rapid advance of technologies and diffusion of mobile phones, mobile banking has gained attention as a viable option in delivering financial services. Recent innovations in telecommunications have enabled the launch of mobile banking as a new access method for banking services; where by a customer interacts with a bank via mobile phone (Barnes and Corbitt,2003). Over the past few years now there is a continuous IT development which can smoothly facilitate business operation specially the banking sector. The development of this technology facilitate business transactions, trading, and purchasing of goods and services without much effort. Hence, it is clear that mobile banking would be an astrictive way of providing banking services and it also could contribute to the development of the nation through promotion of better financial services which is changing demographics and life-style of people.

Mobilebanking allowing consumers to access many bank facilities 24 hours a day. A number of studies have identified advantages of mobile banking to bank customers, including cost and time savings as well as spatial independence benefits (Howcroft et al. 2002; Polatoglu and Ekin, 2001). Research has shown that online banking (Mobile banking) is the cheapest delivery channel for many banking services (Sathye, 1999). The importance of this service to banks is significantly cut their cost. The most common mobile banking service available today is funds transfer, bill pay, branch or ATM Location, account balance and transaction verification.

However, the rate of acceptance of technology is quite low. Mobile banking is still underused Huili and Chunfang (2011), and the market of mobile banking still remains very small compared to the whole banking transactions (Luarn and Lin, 2005; Laukkanen ,2007, Yang 2009).

Tornatzky and Klein(1982) analyzed the adoption, finding that compatibility, relative advantage, and complexity had the most significant relationships with adoption across a broad range of innovation types. Shallone& Munongo (2013) showed that perceived usefulness ,perceived ease of use, relative advantages, personal innovativeness and social norms have significant effect on user's attitude thus influence the intention toward mobile banking, whilst perceived risks and costs deterred the adoption of the service. So, its needed to the commercial banks to know the problem behind slow adoption and low usage of mobile banking which can improve banks future mobile banking service delivery strategy through getting an input from the study. Therefore, this research focuses primarily at describing the usage patterns of mobile banking customers and identifying the factors which influence their usage of mobile banking.

1.2. Statement of the Problem

Since the introduction of banking industry in Ethiopia commercial banks were giving service through traditional window based banking service. But, later another service delivery way introduced called mobile banking. Mobile banking was first introduced in the banking industry of Ethiopia by commercial bank of Ethiopia. After the introduction of mobile banking by commercial bank of Ethiopia other banks also started providing mobile banking service. Currently twelve commercial banks are providing mobile banking service according to NBE report of December 2017.

There is high penetration of mobile phones among the population continues to grow in significant numbers year after year, still the customer's adoption of mobile banking service within these banks still remains low as per NBE Data, According to data provided by national Bank of Ethiopia at December 2017, there are 2,446,884 registered mobile banking customers, this shows mobile banking services in Ethiopia are still in the initial stages of development so commercial banks have huge un tapped market and commercial banks are trying to capture those huge market through providing of the service which have mutual benefits for both the banks and the customers. However, still there is slow adoption and low usage of mobile banking

service. So, there is a need to study and understand where the problem is whether on the customer side, service provider side or government side and identifying specifically which factors are affecting.

Previous studies on factors contributing toward slow adoption and low usage of mobile banking in Ethiopia is so limited. Despite the fact that numerous mobile banking adoption studies have been investigated by various scholars, most of them were conducted in countries such as Korea (Chung and Kwon, 2009), Singapore (Riquelme and Rios, 2010), Brazil Laukkanen et al 2010), Taiwan (Luarn and Lin, 2005), and China (Wang et al. 2010) with relatively little attention paid to developing countries like Ethiopia. Some studies were done in the context of Ethiopia in the adoption and usage of electronic payment, but no more research have been done in adoption and usage of mobile banking, especially in the usage of mobile banking. Therefore, this study intended to fill this gap by exploring more on factors affecting slow adoption and low usage of mobile banking in Ethiopian context.

1.3. Objectives of the Study

1.3.1. General Objective of the Study

The main objective of this study is to investigate the factors affecting slow adoption and low usage of mobile banking in Ethiopia.

1.3.2. Specific Objectives

1 To identify the effect of factors on slow adoption and low usage of mobile banking.

2 To identify the contribution of regulatory body on adoption and usage of mobile banking.

1.4. Scope and Limitations of the Study

Thes research intended to focuses on analyzing issues related to individual and institution low adoption and usage of mobile banking. The problem might be related with financial institution (service provider), individual people (individual customer) or Other institution. This study was geographically limited to AAU graduate EMBA students.

The limitation of the study was the lack of previous studies in Ethiopian context on the topic of mobile banking usage and adoption factors. And also it was not possible to include all factors that affect usage of mobile banking in one study only selected factors were considered for the study.

1.5. Organization of the Study

The paper consists five chapters. The first chapter deals with the introduction part that consists of Back ground of the study, statements of the problem, objectives of the study, significances of the study, scope of the study. Chapter two contains a review of the related literature. The research design and methodology is presented in chapter three. In chapter four, the results and findings of the study is discussed. Finally, the last chapter deals with the conclusions and recommendations that are forwarded based on the result obtained.

CHAPTER TWO

Literature Review

This chapter presents review of literature in the area of mobile banking adoption and usage. The literature review has two components; the theoretical review and empirical review. The chapter has the following sections mobile banking and its emergence, Mobile Banking services, Benefits of mobile banking to customers, Benefit of mobile banking to banks, theoretical Framework and empirical review.

2.1. Mobile banking and its Emergence

Mobile banking is the latest approach used by financial institutions for the provision of financial services through information and communication technology (ICT). M- banking is a service whereby customers use a mobile phone or mobile device to access banking services and perform financial transactions. Goswami and Raghavendran (2009) argue that the broad aim of m-banking is to fit a financial institution on a mobile phone. Crosman (2011) reinforces this by asserting that m-banking enables users to have a bank branch in their pocket and to be able to bank "anytime and anywhere". Laukkanen and Kiviniemi (2010) define mobile banking as an interaction through which a customer is connected to a bank via a mobile device.

The interaction does not necessarily involve performing transactions such as paying bills and transferring money but can, in its simplest form, be the sending of an SMS (Short message system) for account balance inquiry. The technology is the enabling factor that allowed m-banking to emerge. The "always-on" connectivity demand by customers coupled with the fact the internet has evolved from fixed wired through wireless to mobile connection, meant that financial institutions had to pursue alternative channels to provide their services in order to meet customers'" expectations (Puschel et al.,2010).

There is a convergence of ideas that the main driver of mobile banking is the widespread proliferation, availability and acceptance of mobile or smart phones and devices (Halime, 2010). Skeldon (2011) affirms that the general and widespread acceptance of mobile applications, the increasing use of mobile phones as a tool and means for paying bills, and lifestyle are the factors driving the adoption of m-banking. Coelho and Easingwood (2003) assert that the fact that to

day‟s customers are less willing to visit traditional branches, are more and more receptive to new electronic channels and demand better service quality.

2.2. Mobile Banking Services

SMS banking, thin-client applications and access to online banking are the main ways through which banks offer m-banking services (Cruz et al.,2010). Suoranta and Matila (2004), argue that m-banking allows users to check account balance, make transaction history inquiries, transfer funds, pay bills, trade stock and manage portfolio of assets. Crosman (2011) argues that downloadable applications such ATM locator which enables customers to find the nearest ATM from where the customer is located, enables bank to provide distinctive and beyond standard services. Wilcox (2009) predicts, however, that the range of m-banking services is likely to increase in the future.

Cruz et al. (2010) assert that m-banking services are either transactional or non- transactional based. "Monitoring recent transactions, access to loan and card statements, alerts on account activity or the passing of set thresholds. Proceedings of 3rd Asia-Pacific Business Research Conference 25 - 26 February 2013, Kuala Lumpur, Malaysia, ISBN: 978-1-922069-19-1 cheques among others" are examples of non-transactional based transactions (Cruz et al., 2010). Non-transaction based m-banking services are mostly used for informational purposes but may be essential for conducting transactions (Cruz et al., 2010). For example, checking the balance of an account is important before making transfers. Nevertheless, Skeldon (2011) claims that m-banking is used mostly for viewing account balances and that SMS is the most popular medium for the delivery of m-banking services. Tavan (2011) asserts that use of transactional-based m-banking services is quite low.

2.3. Benefits of Mobile Banking to Banks

Banks can utilize the time saved by the channel migration of customers to mobile banking for expansion of business through better marketing and sales activities. Mobile banking enables banks to reduce cost of courier, communication, paper works, etc and also it reduces costs in Setting a branch and the resources to process transactions (Sunil and Durga ,2013). Also banks Providing mobile banking services can have competitive advantage over those banks, which are

not providing this service. It has also been found to increases customer loyalty that is using m-banking customers need not to go in banks braches for fund transfer or for information, Which creates a good relationship between banks and customers which helps in increasing Loyalty to wards the banks. Goswami and Raghavendran (2009) point out, mobile banking services will enable banks to not only increase fee-based income but also enable significant cost savings, improve service quality and provide cross-selling opportunities.

2.4. Benefits of mobile banking to customers

Ubiquitous access, convenience and mobility are the main benefits that m-banking confers to customer (Laforet and Li, 2005). Delport (2010) points out that with m- banking customers no longer need to use scarce time and resources to travel to bank branches. Nevertheless, despite the widespread proliferation of mobile phones and the numerous advantages that m-banking offers, m-banking is still not widely adopted (Riquelme and Rios, 2010). Laukkanen (2007b) argues that internet banking remains the leading channel in electronic banking.

2.5. Theoretical Framework

Innovation and adoption have attracted so much attention in various literatures, and this has generated many models and theories which are believed to affect the adoption of an innovation. However, with regards to present studies theories such as innovation diffusion theory and technology acceptance model (TAM) have been widely used and these theories have been used in many research and this models are the best model for adoption of innovation

2.5.1. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) (Davis, 1989), is adapted from the Theory of Reasoned Action (TRA) (Ajezn and Fishbein, 1975). The TAM states that a users' adoption of a new information system is determined by that users' intention to use the system, which in turn is determined by the users' beliefs about the system .The TAM further suggests that two beliefs – perceived usefulness and perceived ease of use are instrumental in explaining the variance in users' intentions. However, Davis (1989),noted future technology acceptance research must address how other variables affect usefulness, ease of use and user acceptance. Therefore, perceived ease of use and perceived usefulness may not fully explain behavioral intentions

towards the use of mobile banking, necessitating a search for additional factors that can better predict the acceptance of mobile banking.

Consequently this study will employ the TAM theory by investigating how customers perceived convenience affects adoption of m- banking. Perceived convenience consists of perceived ease of use and perceived usefulness. This model suggests that the acceptability of an information system is determined by two main factors: perceived usefulness and perceived ease of use. Several factorial analyses demonstrated that perceived usefulness and perceived ease of use can be considered as two different dimensions.

2.5.1.1.Perceived Usefulness

Customers perception towards technology can enhance their job performance is another factor. According to (Davis ,1995) ,perceived usefulness is the degree to which an individual believes that using a particular system would enhance his or her job performance. Hence, it is believed that an innovation perceived to be useful is more likely to be adopted and customers will take advantage of the innovation such as mobile banking which they find useful to them. According to (Luarn, P. and Lin, H.-H.,2005) Perceived usefulness is one of the two most important factors affecting the acceptance of new technologies or information system.

Perceived usefulness is the primary precursor that determines the behavioral aim to use a computer system (Venkatesh and Davis, 2000). Previous researches have shown that perceived usefulness influenced computer usage directly (Ha and Stoel, 2009; Sudha et al, 2010). Once the consumers realize the importance of the technology based alternate method of service delivery, the intention to adopt such services would increase. According to (Akturan and Tezcan, 2012), perceived usefulness directly affected attitudes towards mobile banking, and that attitude was the major determinant of mobile banking adoption intention among 435 university students of Turkey.

The research conducted by (Amin, Baba, and Muhammad (2007),on current consumers of mobile banking in Malaysia, perceived usefulness was found to be a significant determinant in the intention to adopt such services. The results of the research performed by (Safeena et al., 2011), showed that perceived usefulness was the important determinant of mobile banking adoption. Oluoch (2012) did a study on the factors effecting the adoption of mobile banking in

Kenya a case of bank customers within Nakuru municipality. This study found that perceived usefulness had a positive impact on mobile banking adoption while perceived risk was found to have a negative impact.

2.5.1.2.Perceived Ease of Use

Perceived easiness of mobile banking by users is another factor. Davis, F.D. (1995) defines perceived ease of use as the degree to which an individual believes that using a particular system or innovation would be free of physical and mental effort. According to (Davis, 1989; Liu and Li, 2010), Perceived ease is the degree to which a person believes that using a particular system would be free of effort . It is believed that a customer will adopt an innovation or a particular system if it is easy to learn and use. An innovation perceived to be difficult to use by customers will be less adopted (Rogers, E.M. ,1983). According to (Cooper and Zmud, ,1997), ease of use of an innovation is one the most important characteristics for adoption of an innovation.

Widespread research has provided support that perceived ease of use had a significant effect on usage intention; it is an important forecaster of technology adoption. In a recent research by Chitungo and Munongo(2013), conducted on the adoption of mobile banking services in rural districts of African country Zimbabwe, perceived ease of use had significant effect on users' attitude thus influenced the intention to adopt.

TAM points that perceived ease of use influence the innovation acceptance. It decrease the effort paid in learning and applying new technologies. Many researches give support to TAM that perceived ease of use has positive impact on perceived usefulness and mobile services adoption (Porteous 2011, Ezeoha 2005). Bong-Keun & Tom(2013) stated on their empirical investigation that perceived ease of use has a major significance on the adoption of mobile banking. This finding suggests that customers seek a simple, easier, faster process and environment for banking transactions. It was also showed that perceived ease of use is a major determining factor explaining the attitude difference between adopter and non-adopters toward mobile banking. In another research by (Cheah et al., 2011), perceived ease of use was found positively related with the intention to adopt mobile banking services in the country of Malaysia. A study performed on the factors influencing the intention to adopt mobile banking services in Kenya, perceived ease of use was one of the significant factors in usage intention (Lule, Omwansa, and Waema, 2012).

consumer perception of the ease of use of m-banking is relatively significant, with 50% of consumers not being comfortable in using m-banking services in Saudi Arabia and South Africa(KPMG,2009).

2.5.2. Innovation Diffusion Theory(IDT)

Another theory pertaining to the adoption of new technology is the Innovation Diffusion Theory. According to Rogers (2003), there are five perceived characteristics of innovation that can be used to form a favorable or unfavorable attitude toward an innovation, Namely: relative advantage ,observablity , Triability compatibility and complexity .Relative advantage which refers to the degree to which an innovation is perceived as being better than the idea it supersedes is said to be a significant factor influencing positive or negative attitude towards an innovation.

2.5.2.1.Relative Advantage

Agarwal and Prasad (1997) demonstrate that the advantage an innovation has relative to another method is positively related to its rate of adoption. It is therefore possible to suggest that the advantages that cell phone banking offers over other banking methods would affect its rate of adoption. In traditional IS research, where adoption is studied in the organizational context the relative advantage factor has consisted of performance measures such as performance increase, effectiveness, and time savings(Davis, 1989; Moore and Benbasat,1991). In the mobile commerce and payment context, previous studies suggest that one of the key attributes impacting the relative advantage of mobile technologies and services is their independence of time and location (Carlsson et al., 2006; Constantiouet al., 2006; Jarvenpaa and Lang, 2005). Mobile payments provide consumers with ubiquitous payment possibilities, timely access to financial assets and an alternative to cash payments. The users can, for example, pay for transportation tickets or car parking remotely without the need to visit an ATM, a ticketing machine or a parking metre (Mallat et al., 2004). The relative advantage of mobile payments compared with traditional payment instruments is thus likely to include time and location independent payment possibilities.

2.5.2.2.Perceived Compatibility

Compatibility of technology with user life style and needs are another factor. Compatibility refers to how well a technology fits with an individual's working and lifestyle, values and needs(Agarwal& Prasad, 1997). Those who feel banking via this channel is compatible with their lifestyle would more likely adopt cell phone banking. It is believed that the adoption of mobile banking service would be made possible if it's compatible with the customer's bank transaction needs (Gao, P. and Owolabi, O, 2008).Compatibility of an innovation is more likely to be adopted, if it is compatible with job responsibilities, customer's needs and value system according to (Agarwal, R. and Prasad, J,1998).

Compatibility is an important aspect of innovation that can be defined as the extent to which a new service is consistent with users' existing values, beliefs, previous experiences, habits (Chen et al., 2002). Innovations conforming with an individual user's lifestyle will result in a faster rate of adoption (Rogers, 1995). Compatibility has thus been integrated into the TAM model in the context of a virtual store (Chen et al., 2002), m-payment (Chen, 2008) and mobile commerce (Wu and Wang, 2005). Research has shown that compatibility will lead to higher perceived ease of use as less effort is required (Agarwal and Karahanna, 1998; Wu and Wang, 2005).

Agarwal and Karahanna (1998) state that more innovative, and thus more experienced users, will recognize the value of the innovation more easily. In the context of mobile banking, some consumers are more mobile phone literate than others and, consequently, would be expected to have fewer problems utilising mobile banking and getting accustomed to it quickly. Furthermore, these innovative customer are likely to place greater trust in the channel/competence underlying the technology. The inclusion of compatibility beliefs into the TAM model could hence be very useful for explaining the adoption of mobile banking .Studies by (Wu and Wang, 2005), have found compatibility to be a strong antecedent having significant effect on in determining consumers‟ intention to use mobilebanking.

This antecedent has been developed from (Rogers, 1962).Compatibility is defined as the level of consistency between new technology and customers needs, daily life routine, experiences and values. Greater the compatibility between individuals' life style and technology, greater will be its interpretation in a more familiar context. Studies have confirmed compatibility to be one of

the strong indicators of attitude towards mobile banking . Research on BIS services reveals financial transactions need gaps which have not been fulfilled by the traditional channels used by financial institutions. These channels have been unable to provide the ubiquity offered by an M-Banking & I-Banking as also discussed by (Howard &Hourahine, 2004). Chen et al. (2002) has been found that chances of technology adoption increases much with high compatibility.

Compatibility captures the consistency between an innovation and the values, experiences ,and needs of potential adopters (Rogers, 1995). In IS adoption research, the compatibility of the technology has commonly been assessed in relation to the potential adopter's work and tasks (Moore and Benbasat, 1991; Taylor and Todd, 1995). Regarding payment systems, the consumers' ability to integrate them into their daily life is an important aspect of compatibility (Lee et al., 2003). Compatibility has been found as a significant determinant of mobile technology and service adoption (Teo and Pok, 2003; Wu and Wang, 2005). The compatibility of mobile payments with consumers' purchase transactions and habits is correspondingly expected to impact the adoption.

2.5.2.3.Perceived Complexity

Consumer perception using of m banking as difficult to understand and use is another factor. In the diffusion of innovations theory, complexity is determined as the ''degree to which an innovation is perceived as difficult to understand and use'' (Rogers, 1995, p. 16). Complexity and problems with usability have contributed to the low adoption of a variety of payment systems, including smart cards and mobile banking (Laukkanen and Lauronen,2005; Szmigin and Bourne, 1999). Similarly, ease of use and convenience have been found to affect consumer adoption of mobile technologies and services (Jarvenpaa et al., 2003;Nysveen et al., 2005; Teo and Pok, 2003).

Mobile payments are commonly expected to increase consumer convenience by reducing the need for coins and cash in small transactions and increasing the availability of payment possibilities (Mallat et al., 2004). Limitations in mobile device features, however, diminish the usability of mobile technologies (Siauet al., 2004). Typical limitations include small keypads, limited transmission speeds and memory, and short battery life .The size of a cell phone makes working with it difficult and frustrating for some, and so using a cell phone for banking

transactions may be perceived as complex. Consequently, the adoption of cell phone banking is likely to be negatively affected.

2.5.2.4.Observability

Rogers (1995) argues that observablity is the "degree to which the results of an innovation are visible and tangible to others". Liu and Li (2010) assert that the more it is easy to describe and observe an innovation the more positive impact it will have on people which will eventually encourage usage of the innovation. Cruz et al. (2010) affirm that probability of adopting an innovation increases when the benefits and usage of innovation can be easily observed.

2.5.2.5.Triability

Triability is defined as the "degree to which an innovation can be tried on a limited basis (Rogers 1995). As per Rogers, there is faster adoption of new ideas when these can be tried before their full implementation whilst adoption tend be slower where prior trial is not possible (Puscel et al. 2010). Tan and Teo (2000) assert that if given the opportunity to evaluate innovation, customer minimize the particular concerns of the unknown, which led to acceptance. Therefore, repeating the evaluation and assistance in the use of mobile banking during the trial period can reduce the uncertainty about mobile banking, eventually creating positive customer attitudes to using mobile banking.

Triability can also be viewed as the degree to which an innovation may be experimented with on a limited basis (Huisman and Iivari, 2006). This research used an extended TAM containing the following constructs - perceived usefulness, perceived ease-of-use, perceived trust and awareness and also three IDT constructs- relative advantage, perceived risk and compatibility to explore the adoption of mobile banking. Therefore; the research integrated the TAM and IDT along with trust and awareness to investigate the main factors influencing mobile banking adoption.

2.6. Empirical Review

This section will presents the empirical review or previous studies carried on different countries by different authors on the factor affecting adoption and usage of mobile banking

2.6.1.Infrastructure

Poor internet access, telecom interruption and scarcity of telecom at rural area are the major daily problem in the Ethiopia . Critical components such as speed of internet influence frequent connection breakdown, browsing speed, ease of navigation, website transition, waiting time and transaction flow. Connection speed was an important attribute linked to the efficiency of mobile fund transfer service and linked to convenience using the mobile brokerage (Laukkanen and Lauronen, 2005).The importance of quality internet connection influences online-banking acceptance or adoption in Finland (Pikkarainen*et al.*, 2004),Singapore (Gerrard and Cunningham, 2003) and Thailand (Rotchanakitumnuai and Speece, 2003)

Siauet. al., (2001) pointed out that mobile commerce adoption strongly depended on the user infrastructure (useraccessible mobile devices) and on the available network infrastructure (mobile telecommunications networks). Authors like (Pitruzzello ,1998), (Lan et. al. ,2000), (Guardini et al., 2000) and (Kiesnoski ,2000) argued that commerce applications, including mobile banking, cannot be implemented successfully without an integrated and seamlessly converging underlying infrastructure, and suggest approaches towards achieving coexistence and transparent handoff in a global coverage perspective. Bansai (2001) pointed out that a co-factor for the successful usage of mobile banking is the timely development of value-added mobile banking services.

2.6.2. Awareness

Awareness is the degree to which a consumer is aware of electronic banking channels (Lee et. al, 2007) .A state of knowing about the existence of the mobile banking service, and being informed of bank service delivery through mobile banking, how to use it and the advantage of using the service is another factor. According to(Sathye, M. ,1999) ,the level of information consumers have on mobile banking is one of the major factors impacting the adoption and usage of online

banking. Laforet and Li (2005) as well as Tobbin (2013) discussed individual awareness as one of the factors that influence acceptance and adoption of mobile banking.

The adoption rate of an innovation could be determined by level of awareness of the customers (Hurley, R.F. and Hult, G.T.M. (1998) and Sathye, M. (1999). According to(KPMG ,2009) surveyed the usage of m-banking in the Middle East/Africa region (Saudi Arabia and South Africa), it was learnt that 25% of consumers are not aware of the offering of banking services by their banks via mobile devices. KPMG(2011) discovered that 38% of consumers in the Middle East were unaware that their banks offered m-banking services, while in Saudi Arabia, most consumers complete their e-banking service transactions without prior awareness of security issues and potential risks therein (Qasem, M., 2014) . Likewise, consumer experience in using mobile devices is one of the most critical factors for the Middle Eastern/African region, as only 54% of users stated their willingness in using m-banking.

KPMG (2011), Laforet, S. and Li, X. (2005) carried out a research to examine the online mobile banking in China Purposive sampling technique was adapted to a sample of five hundred (500) customers who transact their banking business online. Analysis was done quantitatively through a regression model. Base on this research it was established that lack of understanding and awareness of m-banking benefits are the main factors hindering the adoption of mobile banking usage in China.

2.6.3. Security

Fear of transaction through mobile banking due to personal information and transactional security is another factor. According to (Durkin et al., 2008), personal information and financial transactions security as one of the determinants of M-Banking &I-Banking adoption. Greater the customer's perception about the risk associated with the use of internet, greater will be the importance of security for customer. Also the more customer uses internet for his financial transactions less will be his concern regarding the security issues of internet. Dewan and Chen(2005) Found that Consumers' concerns about the privacy and security of mobile payments are commonly related to authentication and confidentiality issues as well as to concerns about secondary use and unauthorized access to payments and user data.

KPMG (2009) made a survey on m-banking usage in the Middle East/Africa region (Saudi Arabia and South Africa) .It was discovered that security and privacy are crucial matters as asserted by consumers, and they may have an impact on consumer decision making in the usage of mobile banking. Another survey conducted in the same region by (KPMG,2011) ,evidenced the important role played by security and privacy (48%),) in consumers' decision making in using m-banking. (Laforet& Li ,2005), found that the security factor could influence consumers' attitudes towards online banking in China Furthermore, it was considered to be one of the greatest concerns in adoption of mobile banking services .Brown et al(2003), as individuals may worry about security issues during mobile banking service transactions such as data input and output mechanisms.

2.6.4. Trust

Many studies in the area of distribution channel connections define trust as the belief of a company in the honesty of its business partner and other factors relevant to this concept (Ganesan, 1994; Geyskens et al., 1998). In another study, trust has been defined as the tendency to trust in a business partner that is capable of being trusted (Das and Teng, 2001). Perceived risk and trust are interrelated concepts and have been frequently identified as key barriers to adopting online and mobile services (see Featherman and Pavlou, 2003; Gefen et al., 2003; Lee and Turban, 2001). Trust of the customers need to be formed and retained in the long term, and understanding the risks perceived by the customers is very useful for the banks in identifying the barriers of adoption and removing them. Kim et al. (2009) proved that Mobilebanking is perceived as associated with higher risk compared to ordinary banking. The primary trust of the individual in services is expressed as the necessary factor for using Mobile banking. Koenig-Lewis et al. (2010) concluded that there is no direct relationship between trust and intention to use M-banking; rather, it indirectly and through variables of compatibility and perceived risk exerts influence upon usage intention. The importance of trust is highlighted in electronic and mobile commerce because of the spatial and temporal separation between buyer and seller when buyers are required to give delicate personal information such as telephone number or credit card number to the seller (Grabner-Kra¨uter and Kaluscha, 2003). Previous studies have found trust as a significant determinant influencing customers' willingness to conduct electronic commerce transactions (Gefen et al., 2003; Jarvenpaa et al., 2000). KPMG (2011) ,evidenced the important

role played by trust (56%) in consumers' decision making in using m-banking. In the context of mobile banking, recent research has demonstrated that the lack of perceived credibility has been a significant concern to bank customers, manifested ,for example through fears that personal information or money might be transferred to third parties without users' knowledge (Luarn and Lin, 2005; Wang et al., 2006; Wang et al., 2003). Kim et al. (2009) found that mobile banking is perceived as riskier than non-mobile banking, a person's initial trust in the service is a critical factor for the success of m-banking. Gefen et al(2003); Jarvenpaa et al(2000) have found trust as a significant determinant influencing customers' willingness to conduct electronic commerce transactions according to(Lin and Wang, 2006)

2.6.5. Perceived Costs

Customers perception using mobile banking will cost money is another factor .Perceived costs refer to the person's believes that using the online banking will cost money (Luarn and Lin, 2005). One-time investment for a mobile device is a necessity in the present world. However, perceived cost has a significantly negative effect on the decision to use mobile commerce (Wu and Wang, 2005).

There are also specific regulations or government mandates which influence access and cost of internet. The costs vary depending on the number of Internet Service providers in the country. Another major consideration is the monthly internet access expenditure which has a bigger slice of a person's monthly expenses. This believes show that the cost of using mobile banking facilities could influence the intention to use mobile banking service (Luarn and Lin,2005; Mathieson et al.,2001).

Innovation is always associated with many costs such as operation cost, utilization cost, investment cost (Rothwell and Gardiner,1984). The cost of using an innovation is very important especially when it comes to the use of mobile device in mobile banking and the price of using such technology should be affordable by the customers (Min et al.,2008). By lowering the cost of using an innovation such as mobile banking, customers who are price conscious will be more likely to adopt the innovation. In another major study(Luo et al.,2010) revealed that customers perceive the cost of the technology to be very high.

The cost associated with internet access fees and subscription charges is a significant barrier to the adoption of internet banking (Sohail and Shanmugham, 2003).Perceived costs discourage non-users from using the internet banking services because they feel that it would entail more costs than the relative advantage (Kuisma*et al.*, 2007; Sathye, 1999). It also has a negative influence on the behavioral intention to use mobile banking in Australia (Wessels and Drennan, 2010; Brazil Cruz *et al.*, 2010) and Taiwan (Luarn and Lin, 2005). It is, therefore, hypothesized that financial considerations, including the cost of a web-enabled mobile phone and subscription fees, will influence consumer intentions to use mobile banking.

According to (Rogers, 1995).cost is treated as a separate factor to clearly differentiate it from the relative advantage of time and place independence. Kim et al. (2007) found that the perceived fee has a significant effect on the perceived value of mobile Internet. Perceived service cost has also been found as a significant determinant for the intention to use wireless financial services (Kleijnen et al., 2004), mobile banking (Luarn and Lin, 2005), and mobile commerce transactions (Wu and Wang, 2005). In the mobile payment context, the transaction costs of mobile payments are often included in the price of the purchased item. For example, a soft drink at a vending machine costs more if it is paid for with a mobile payment than if it is paid For with cash. Cost is therefore likely to have a significant impact on mobile payment adoption.

2.6.6. Perceived Risk

In recent decades, the definition of perceived risk has been changed due to change in customers' behavior and their inclination to online transactions. Initially, perceived risk was limited to fraud or product quality, but today perceived risk is defined in relation to financial, physical, psychological, or social risks in online transactions (Forsythe and Shi, 2003). Perceived self-efficacy is presented as one of major risk factors predicting sustainability of a new technology (Ellen et al., 1991). Luarn and Lin (2005) consider it as a basic capability in using M-banking. It refers to the confidence of individual in their ability to use a specific technology (Agarwal and Karahanna, 2000). Some studies on the adoption of new technology indicate that an individual's perception of risk is important in the adoption of that technology (Laforet and Li., 2005; Yang, 2009). The risk factor is considered very important in mobile services, because mobility increase the threat to security. There is more risk in M-banking in comparison to other fixed devices due to distant connection (Corradi et al., 2001). Coursaris et al. (2003) found out that the risk

associated with M-banking is high because of the high probability of theft and loss of a mobile device. Lovelock et al. (2001) argue that satisfaction and adoption of technology-enabled service are highest when the risk of using it is low. Wu and Wang(2005) found that there is a significant relationship between perceived risk and intention to use mobile. Wessels and Drennan (2010) investigated the effect of risk on attitude toward using M-banking. They concluded that this variable has a significant negative effect on the attitude and using M-banking. That is to say, the higher the risk of using a new technology, the more negative is the attitude toward it, and the less is the willingness to its use.

2.6.7. Demography

Demography is both quantitative and qualitative aspects of human population. Quantitative aspects include composition, density, distribution, growth, movement, size, and structure of the population. Qualitative aspects are the sociological factors such as education quality, crime, development, diet and nutrition, race, social class, wealth is another factor for slow adoption of mobile banking**.** Demographic factors also linked with the adoption of different banking channels. Mostly women were less like to conduct their banking activities online.

One research in Turkey also show according to (Akinci et al., 2004) ,mostly mid age consumer are more likely to conduct their banking activities online compare to the younger and older consumer to use internet banking. Mattila M(2003) found that those who belong to upper class they are more like to using online banking system they feel it's less costly and time saving tools. It's usually familiar that demographic factors have excessive impact on consumer behavior and attitudes concerting online banking analysis that there is significant different on age, gender and income towards using mobile banking.

Some scholars in online banking prove that demographic profiles are statistically significant toward the adoption of new technology-based services. Gender and age are the most studied demographic characteristics in the online banking context. For example, when compared to women, men are task-oriented and more receptive to technological innovations such as mobile banking services (Cruz *et al.*, 2010; Laforet and Li, 2005; Laukkanen and Pasanen, 2008; Suoranta and Mattila, 2004).

As an individual's age increases, the adoption probability decreases. Older customers have a lower propensity, negative attitude and are more resistant to change toward using mobile banking services (Cruz *et al.*, 2010; Fall *et al.*, 2015; Laforet and Li, 2005; Laukkanen *et al.*, 2007; Laukkanen, 2016). Based on the study of Joshua and Koshy (2011), younger generations are the typical users of online banking. Marital status, level of education and household income have been pointed to have a positive impact on the adoption of online banking services. Some authors argue that marital status was significantly associated with the adoption of mobile communications (Munnukka, 2007) and mobile banking. Individuals with a higher level of educations have access to technology and the internet is more comfortable in using self-service. Technologies given that they have greater internet literacy and self-efficacy (Karjaluoto*et al.*, 2002; Mattila *et al.*, 2003; Meuter *et al.*, 2005). Toe and Pok (2003) found that people having a busy life and being constantly on move rather than having a sedentary life are more prone to adopt and use mobile banking.

CHAPTER THREE

Methodology

In this section of the study the methods used to achieve the objectives of the study is highlighted. Including research design, the sources of data and the methods that were used in the data collection for the research, the target population for the study, the sample size and,sampling technique and how data obtained from the study were analyzed

3.1. Research Design

This research is exploratory research that is aimed exploring more on determinants of slow adoption and low usage of mobile banking. Exploratory research as the name implies, intends merely to explore the research question. To achieve the above research objective a qualitative research approach is adopted. The main reason of using such approach is to address the 'why' how' of topic, to fully explore the topic and to further exploring the effects and unintended consequences. The study used structured questioner as the primary data collection instrument to gather information.

3.2. Population and Sampling

3.2.1. Target Population

The population of interest for the study was Addis Ababa university graduate EMBA student. The reason for selecting AAU MBA students as population of study is because they graduated their first degree in different field of study like BUSSINES,ICT,ENGNERIG etc.Most of them have long working experience and they are matured. so, This allows respondents can view the topic in different dimension and explore the problem from different perspective. Most of them are customers of different banks, user of the mobile banking service and some of them are bankers of commercial banks in Ethiopia.so, as a customer, as a banker and as a government official they know details about contributing factors toward slow adoption and usage of m-banking in Ethiopia .The respondent were also evaluated through their response so they do not respond their only view rather they investigate more on the topic.

3.2.2. Sample Size

Due to small number of target population a census was carried out.The total sample size was108.

Table 2: Profile of respondents

Variable	category	Frequency	percent
Gender	Male	88	81.5%
	female	20	18.5%
Age	<25	0	0%
	25-35	12	11%
	35-45	30	27%
	46-55	32	29%
	>55	34	31.5%
Work sector	student	0	O%
	Employed	98	90.7%
	-banking sector	14	14.2%
	-Ethio telecom	4	3.7%
	-health	7	6.5%
	-manufacturing	5	4.6%
	-construction sector	20	18.5%
	-education	10	9.2%
	-international organization	8	7.4%
	-ICT	20	18.5%
	NGO	10	9.2%
	Un employed	0	0%
	Self employed	10	9.2%
Profession	Engineers	12	11%
	ICT professional	25	23%
	lawyer	6	5.6%
	Business	35	32.4%
	Education	15	13.9
	health	15	13.9
Experience	>5	0	0%
	5-10	22	20.4
	10-15	41	37.9%
	15-20	25	23%
	>25	20	18.5

3.3. Data Collection Instruments

3.3.1. Primary Data Collection

In order to collect primary data open- ended questionnaire is designed for AAU graduate EMBA student. Open-ended questions allow respondents to include more information, including feelings, attitudes and understanding of the subject, this allows researchers to better access the respondents' true feelings on an issue.TO address the above research objective and to fully explore the topic and due to limited previous studies on the topic its needed to design the questionnaire that incorporate the hole dimensions of the topic ,a question allowing respondents to respond detail feeling and understanding of the topic and a question allowing a researcher to get detail information about the immediate condition of the topic.

Open ended questionnaire have the following benefit, There could be multiple answers to open-ended questions. When a question requires one correct answer, respondent will limit their view on the topic, often conclude there is only one way to solve the problem. Questions require respondent to explain their thinking will encourage a variety of responses or reactions on the topic because not all respondents think the same this can important to the researcher to get more data, open ended questionnaire is important to communicate the reasoning process. One strong point of using open-ended questions is that respondent are given the opportunity to communicate what is in their minds. When respondent are required to communicate their reasoning process, it was easy to understand what they know about the problem. Other benefit of open-ended questions is to encourage deeper learning. Some believe that these types of questions could promote learning the concept, however, unlike procedural knowledge, it is easy to use in the unknown contex.So, an open ended questionnaire prepared by researcher were "'what are the factor for slow adoption and low usage of mobile banking in Ethiopia"

3.3.2. Secondary Information

In this study secondary sources of data were obtained from both unpublished and published data such as, articles from journals and the internet which is related to the topic. Sources of all secondary data were duly acknowledged at the reference section of the research

3.4. Data analysis

Grounded theory is a systematic research methodology in the social sciences involving the construction of theory through methodic gathering and analysis of data (https://www.ul.ie/artsoc/.../workshop-introduction-grounded-theory). Grounded theory is a research methodology which operates inductively, in contrast to the hypothetico-deductive approach. A study using grounded theory is likely to begin with a question, or even just with the collection of qualitative data. As researchers review the data collected, repeated ideas, concepts or elements become apparent, and are tagged with *codes*, which have been extracted from the data. As more data is collected, and re-reviewed, codes can be grouped into concepts, and then into categories (These categories may become the basis for new theory (*groundedtheoryreview.com/)*

Grounded theory is quite different from the traditional model of research, where the researcher chooses an existing theoretical framework, and only then collects data to show how the theory does or does not apply to the phenomenon under study (https://en.wikipedia.org/wiki/Grounded_theory).

Open coding is one of the first step in grounded theory research. Open coding is a method for grouping words and phrases into abstract concepts. Subsequently, by categorizing concepts, comparing them and driving patterns one can develop theories and hypothesis by reading between the lines in the data. Thus, this open coding can be the precursor for further research on a topic. Open coding is used when a qualitative research strategy is required (*https://researchrundowns.com/qual/qualitative-coding-analysis)*

The benefit of open coding

1)Theories generated through open coding are grounded directly in the data .In contrast to the traditional scientific method, theories discovered through the open coding originate directly from the raw data source. Codes are assigned to textual sections, and further abstracted to categories, which are then linked together to form a theory. This can reduce researcher bias as ideas generated are continually compared against the actual data.2)Collects many potentially relevant parts of the data, expanding the focus of the research process If coding is applied rigorously to a piece of qualitative data many codes will be generated, perhaps as many as one per line. This

approach can result in the discovery many concepts and categories, which will encourage researchers to pursue multiple ideas, rather than limiting themselves to a single perspective. 3)Captures participants' perceptions and the personal meanings they give to others' actions Open coding and grounded theory research is based on the philosophy of symbolic interactionism, according to which symbols, or the interpretation that individuals give to events, motivate individuals to act and respond to others . The process of coding allows us to gain rich and potentially valuable insights into individuals, their social interactions, and their actions more generally(https://en.wikipedia.org/wiki/Open_coding)

The important of naming concepts and ideas using codes is Naming directs our attention towards phenomena and us gives the ability to compare and find relationships among different concepts. More importantly, the beneficial act of discussing and sharing ideas is only possible through naming phenomena(https://prpost.wordpress.com/.../an-example-of-how-to-perform-open-*coding)*

This process is also referred to as conceptualization. Labeling is moves from raw data such as events, actions and objects to a more abstract representation of them. This allows us to gather different phenomena with the same properties under its corresponding abstract concept .The data used for open coding could be any piece of qualitative data.

According to the concept of open coding the qualitative data collected through open ended questioner was analyzed and the most frequent factors affecting adoption and usage of mobile banking mentioned by respondent were infrastructure, awareness, security ,trust, risk ,literacy, legal framework , advertisement, skilled manpower and finance, competition and restriction of foreign banks, monopoly power ,government support, language transaction limit and timely alert, business model, demography, financial network between banks, immature electronic commerce, branch based mobile banking service, nature of the economy, low income level and saving habit, prolong response for unsuccessful transaction and no transaction reversal, connection of service provider with information technology, organizational culture, service package and need of society Training, Management support, lack of profession it companies and less information system team ,benefit package attached with it, need for physical evidence and preference of cash on hand(owner ship),un availability of rule and regulation specially for e

payment ,the technology not friendly used but the research intended to focus on the following 13 factors.

The following 13 factors were pointed out by the researcher from the data and the factors were listed down based on their frequency of the response. Based on108 respondents the following frequency of factors were pointed out with their respective factors as a factor for slow adoption and low usage of mobile banking in Ethiopia

Table 3 Factors and their frequencies

FACTORES	FREQUENCY
Infrastructure/telecom/internet	65
Awareness	45
Security	42
Literacy	36
Trust	33
Perceived cost	32
Legal frame work	29
Advertisement	22
Business model	20
Perceived risk	18
Monopoly power of ethio tele	15
Governmentsupportoninformation communication technology	10
Demography	7

CHAPTER FOUR

Data Analysis and Discussion

This chapter will present the analysis of the data that the researcher collected from the respondents.

4.1. Infrastructure

Infrastructure is relatively permanent and foundational capital investment of a country that underlies and makes possible all its economic activity or The basic facilities, services, and installations needed for the functioning of a community or society, such as transportation and communications systems, water and power lines, and public institutions including schools, post offices, and prisons.

According to the respondents due to poor telecom/internet there is frequent transaction failure. When customer transfer or send money to other customer the transaction can fall and the sender account will debited twice. So, the customer has to go to his/her branch to the reversal of those transactions, this can frustrate most of the customers. In addition at rural area /remote area the telecom/internet access is scarce .So, the population at rural area is not able to use or far from using mobile banking service. Out of 108 respondents 65(60.2%) responds as poor telecom, telecom interruption, high cost of internet and scarcity of telecom at rural area are the factor for slow adoption and low usage of mobile banking in Ethiopia.

Based on the analysis of telecom/interent infrastructure, poor internet/telecom causes frequent failure of transaction .This is supported by (Pitruzzello ,1998), (Lan et.al. ,2000), (Guardiniet. al., 2000) and (Kiesnoski ,2000) argued that commerce applications, including mobile banking, cannot be implemented successfully without an integrated and seamlessly converging underlying infrastructure, and suggest approaches towards achieving coexistence and transparent handoff in a global coverage perspective

4.2. Awareness

Awareness is a state of knowing and being informed of something or knowledge that something exists, or understanding of a situation or subject at the present time based on information or experience .

According to the data there is information gap or awareness problem about the existence of the mobile banking service and customers not informed of bank service delivery through mobile banking, Due to that a number of customers only get banking service through traditional window based service and ATM to transfer or send money, to know their reaming balance and to check the transaction on their account instead of using of the mobile banking. Some customers also not use the service even knowing the existence of the mobile banking service due to lack of awareness about how to use the service and the advantage of using the service .Out of 108 respondents 45(41.6%) responds lack of awareness is the cause for slow adoption and usage of mobile banking in Ethiopia.

The analysis of awareness shows that due to lack of awareness customer uses banking service through window based or Atm machine instead of using m-banking. This is supported by (Hurley and Hult ,1998) and Sathye, M. (1999),The adoption rate of an innovation could be determined by level of awareness of the customers

4.3. Security

Security is potential harm from external forces. There is main domains where security concern is needed, from that IT or computer security is the main. IT or computer security refers to the security of computing devices such as computers and smart phones, as well as computer networks such as private and public networks, and the Internet. It concerns the protection of hardware, software, data, people, and also the procedures by which systems are accessed. The means of computer security include the physical security of systems and security of information held on them.

According to the data customers perceives using mobile banking make vulnerability of a personal information and transactional security to third party .In addition customers also fear that hackers can access their mobile banking and can use their money. Out of 108 respondents 42(38.8%) responds

security is the cause for slow adoption and usage of mobile banking. From the analysis of security data it has been founded that customer fear that using m- banking makes vulnerability of personal and transactional information to third party .This is supported by(Dewan and Chen,2005) ,Found that Consumers' concerns about the privacy and security of mobile payments are commonly related to authentication and confidentiality issues as well as to concerns about secondary use and unauthorized access to payments and user data

4.4. Literacy

Literacy is the ability to read and write. According to the data Literate people are mostly ready to accept changes like changes in their life styles, in their methods of production, health practices, etc. There by enabling them to apply technologies and benefit from such interventions. The ability to read and write allows people to acquire new knowledge, raise their level of awareness about their surrounding and understand their rights. Elite peoples are not ready to accept and use new technology because they feel using new technology is affordable for only literate peoples.

Most of elite peoples do not know reading and writing in English language but the mobile banking application is in English language this make difficult to use mobile banking to elite peoples. Literate peoples like to save their time and make easier their life by using new technology than elite peoples. The most critical factor affecting adoption and usage of mobile banking is elite people like branch based banking service and like to see their remaining balance on passbook than mobile banking .Out of 108 respondents 36 (33%) responds as literacy as a factor for slow adoption and low usage of mobile banking.

4.5. Trust

Trust is to believe that the mobile banking service is good or safe and reliable or reliance on the integrity, strength, ability, surety, etc., of the service. According to the data Ethiopian commercial banks customers were not sure about the safety of the service. In addition customers fear using the service because they do not trust both the bankers and the m- banking service when a customer transfer or send money they do not transfer/send a huge amount of money rather they check the service by sending small amount of money. In addition the customer also not trust the bankers those activates the service; they believes those bankers who activates the

service can accesses their mobile banking service. Out of 108 respondents 33(30.5%) respond trust as a factor for slow adoption and low usage of mobile banking in Ethiopia. From the analysis of trust data it has been found that customers fear using the service because they do not trust both the bankers and the m- banking service. This is supported by Koenig-Lewis et al. (2010) concluded that there is no direct relationship between trust and intention to use M-banking

4.6. Perceived cost

Perceived cost of using mobile banking service is customers perception of expense of money due to usage of mobile banking .According to the data customers perceives using mobile banking can incur cost of internet and cost of buying mobile devices.so, they decide to not to use the service rather incurring a cost .out of 108 respondents 32(29%) responds as perceived cost of using mobile banking is a factor for slow adoption and usage of mobile banking. From the analysis of perceived cost it has been found that customers decides not to use the service rather incurring a cost .This is supported by(Kuisma *et al.*, 2007; Sathye, 1999),Perceived costs discourage non-users from using the internet banking services because they feel that it would entail more costs than the relative advantage.

4.7. Lack of legal framework

Legal framework is broad system of rules that governs and regulates decision making, agreements, laws etc. According to the data there is Lack of government influence to the connection of service providers with IT and to matured e commerce in Ethiopia .The concerned regulatory body like national bank of Ethiopia are not aggressively encouraging or enforcing commercial banks in the country to gallantly execute mobile banking . The absence of strong role that brings technology driven completion between banks is the determinant factor for slow adoption and usage of mobile banking. lack of rules for prolong response of commercial banks for failure or un successes full transaction and only branch based report for un success full transaction strongly affects adoption and usage of mobile banking. Out of 108 respondents 29(26.%) responds as lack of strong legal frame work is a factor for slow adoption and usage of mobile banking

4.8. Product advertisement

Product advertising is any method of communication about the promotion of a product in an attempt to induce potential customers to purchase the product or creation of awareness about product to the target consumers about the use, feature and way of using the product.

According to the data the commercial banks in Ethiopia were advertising only the product rather than advertising details about how to use the product, the advantage of using the product, the limitation of the product. The commercial banks advertisement is not trust worth and the way of promotion is not presenting and addressing all the target consumer ,Not educating regarding the safe mode of handling the service and various distinctive added features to the product making it more consumer friendly. The advertisement of commercial banks also not able to persuading customers by making people believes what was said on advertisement and not creating image on the people by showing how the service make their life easier. Out of 108 respondents 22(20.4%) responds poor product advertisement as a factor for slow adoption and usage of mobile banking

4.9.Business model

A business model is a conceptual structure that supports the viability of a product or company and includes the purpose and goals of the company and how it intends to achieve them. A business model answers the following questions: Who is your customer, what does the customer value, and how do you deliver value at an appropriate cost? According to the data the commercial banks in Ethiopia were not using proper business model which brings proper way of service delivery. In addition Commercial bank not using effective business model. An effective business model is a system that solves the problem of identifying who is (or are) the customer(s), engaging with their needs, delivering satisfaction, monetizing the value and link between technology and firm performance which can improving product or service offering way. Out of 108 respondents' 20(18.5%) respond business model of the commercial banks factor for slow adoption and low usage of mobile banking.

4.10. Risk

Perceived risk is a customer's perception of a threat of using mobile banking. According to the data greatest perceived risk affecting customers not to use the m-banking service is non-reversal

of money sent to wrong account or phone number. In addition customers a risk of pro long response from bank side for failure transaction. Out of 108 respondents 18 (17%) responds as risk a factor for slow adoption and usage of mobile banking in Ethiopia. From the analysis of perceived risk it has been found that the reason behind customers not to use the m-banking service is of risk of non-reversal of wrong transaction. This is supported by (Wessels and Drennan ,2010) investigated the effect of risk on attitude toward using M-banking. They concluded that risk has a significant negative effect on the attitude and using M-banking.

4.11.Monopoly power of Ethio Telecom

Monopoly is a market structure characterized by a single seller, selling a unique product in the market. In a monopoly market, the seller faces no competition, as he is the sole seller of goods with no close substitute .According to the data Since Ethio Telecom is lone provider of telecom service it can set any prices without regardless of demand and that brings the cost of internet high, There is absence of new innovative or modernized service which is manifested by low quality of internet service , high internet disruption and low supply of internet as compared to the demand which can affects adoption and usage of mobile banking. Out of 108 respondents 15(14%) responds as the monopoly power of ethio telecom is a factor for slow adoption and usage of mobile banking.

4.12. Government support on national ICT program

Information and communications technology sector is one component of a country's economic development process, along similar lines to infrastructure sectors such as transportation, power or water. According to the data there is lack of strong IS development team, lack of national ICT research and training center , lack of government support for technology innovation and change and low government support on development of existing and new ICT infrastructure .Out of 108 respondents 10(9.2%) responds as lack of government support on national ICT program was a factor for slow adoption and usage of mobile banking.

4.13. Demography

Demography is Study of both quantitative and qualitative aspects of human population. Including composition, density, distribution, growth, movement, size, and structure of the population, age, gender, education level, income level, development, social class, wealth etc.

According to the data older people fear using mobile banking because they do not have trust , fear risk and longer process of the service .As the level education differs level of technology usage also differ ,more educated people use new technology more as compared to less educated people. Educated peoples are more busy in their life .So, they need a technology which makes their life easier and save their times but less educated people not active to accept and use new technology as educated people. Because, they do not know daily innovation of new technology and most of them have no bank account or they save their money in the traditional method than saving in the bank. High income people are also use more new technology as compared to low income people .Low income people is less mobile banking user as compared to high income people because low income people not think more to save from their income rather they only try to cover their consumption .Out of 108 respondents7 (6.5%) respond demography factors for slow adoption and usage in Ethiopia.

Beside the factors identified on the literature in chapter two literacy, lack of legal framework, monopoly power of ethio telecom, advertisement, bussines modele, government support on national ICT are factors additionally pointed out by the research respondent.

CHAPTER FIVE

Conclusion and Recommendation

This chapter shows the conclusion of this study and their relationship with relevant theories, and draws a conclusion on the findings. The contributions and recommendation given in this research work can be used for future research and enhance further development in the banking sector of Ethiopia.

5.1. Conclusions

From the study it can be concluded that telecom/internet infrastructure, awareness, security, literacy, trust, perceived cost ,legal framework, advertisement, business model, monopoly power of Ethio telecom ,Government support on ICT and demography is the factor for slow adoption and low usage of mobile banking in Ethiopia.

5.2. Recommendation

The commercial banks and Ethio telecom should corporate on Ethio telecom infrastructure on both finance and human capital to new and innovative telecom service supply .Both Ethio telecom and the banking industry as contributors of countries economic development , they should have a legal agreement on the way commercial banks support Ethio telecom on the expanding and building telecom infrastructure and on the way ethio telecom supplies quality telecom service , accessibility of telecom at the remote area.

The commercial bank should develop more aggressive marketing activities to inform customers about the service in details about the advantage of using the service, how to use the service ,the relative advantage of using mobile banking service with other banking service delivery system.so, banks should follow best awareness creation strategy in order to aware their product to the customers including customers right and the duty of service providers.

To prevent loss of personal/account information the bank should ensure that their system is secure to prevent hacking .In addition to the bank side to prevent on the customer side Commercial banks should aware their customers not to open a link through their email that is unknown. By doing so, customers are making more vulnerable to mobile banking frauds. It is

necessary to use own data card that should be good enough. Another mobile banking safety tip that customers must adopt is to ensure that do not use easy passwords. That can be extremely dangerous and full of risks.

One needs to be careful is not share the password .It is believed that bulk of the banking frauds take place through known relatives. So, customers should careful not to share mobile banking password. In fact, I strongly suggest that customers have a screen lock for their mobile whereby nobody would be able to open the same. The commercial banks should ensure that the customer not to save their mobile banking pin on their phone. This can be extremely dangerous if the customer lose mobile device any one can gain access customers mobile banking pin and other sensitive information

To avoid consumers risk perception the banks need to build the confidence of their customers which will lead to more patronage. There is a need to change the customer's perception through a well-structured advertisement and staff interaction in order to make them realize that the service is safe to use. Greatest perceived risk is sending money to wrong account or phone number, the bank should ensure that customers are in a position to recover their money in the shortest period in case of such a scenario.

From the analysis of literacy data it has been founded that elite peoples are not ready to accept and use new technology.so, banks should motivate and initiate the elite ones to use the service and banks should also aware in special way how to use the service. The main problem relating with literacy is language problem, most of the people living in rural area is elite especially they do not able to read and write in English so banks should make to access the mobile banking service in the in the local language.

The banks should also ensure that the cost of mobile banking service is reasonable and affordable .In addition the commercial banks should also persuade the consumer that the greater opportunity what they gain using the service than the cost of using the service.

National bank should influence the commercial banks to have mobile banking procedures including customers right and the duty of the banks on the service. In addition government should influence service provider to make their payment through mobile banking.

To tackle product advertisement related problem the commercial banks should know their target customers and the advertisement should address the target customers. In addition banks should advertise the real feature or the fact of the service including its limitation. Banks should advert the mobile banking service in a way that how the service can make comforts, make easy their daily activity and can save time.

From the analysis of appropriate business model data it has been found that the business model of commercial banks in Ethiopia were not appropriate to deliver the mobile banking service to new customers and to handle complaints regarding the mobile banking service to the existing customer. So ,the banks should adopt appropriate business model which is important to identify a target customer and helps to deliver value for the customer at appropriate value.

One reason for monopoly is high cost of entry .so, government should facilitate condition for new entrants to the telecom business and government should have strong rules and regulation to control disruption that may come from free market force.

Now a day's all economic activity is running with the help of ICT especially bulky activity of banking industry is done with the help of ICT. so government should emphasis on supporting national ICT research and training center. Banking industry as a great economic influencer of a country government should facilitate conditions likes' technology experience sharing with foreign banks and importing of device and experts from abroad for implementing the technology.

From the analysis of demographic data it has been founded that, most of the aged customers are dissatisfied about the security and trust factor. So, service providers should take steps to make their higher aged customers satisfied. For example, they can introduce sending influential messages about good security system of their services to the targeted customers. It is also revealed that, the higher aged and the low educated people are dissatisfied regarding the ease of use factor. Therefore, the service providers should make the services easy to use for these people. In this purpose, they can provide customer training, provide picture based user guide rather than written user guide.

This study also revealed that, the customers who have low income are dissatisfied about the cost effectiveness factor. Therefore, it is necessary to provide low cost services to these people. In

this regard, the service providers can divide their market into different segments and then introduce several customized packages for their different types of customer.

5.3. Future Study

This research focus in commercial banks in Ethiopia AAU graduate EMBA students.In order to increase the research generalizability power the researcher recommended other researcher to broaden the scope of the research outside AAU graduate EMBA student. Besides other factors in addition to infrastructure, awareness, security, trust, risk, perceived risk, demography ,literacy, legal framework, advertisement, business model, monopoly power of ethio telecom and government support on national information communication technology which may affect mobile banking adoption shall be considered by future researchers to better understand factors that affect the adoption of mobile banking technology.

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Appendix I

Questioner

This questionnaire is designed for final year EMBA students 'aiming to students to list down and explain the factors for slow adoption and low usage of mobile banking.

Section one Demographic Factors

1. Age Group

□ < 25 □ 25-35 □ 35-45 □ 45-55 □ > 55

2. Gender

□ Male □ Female

3. Occupational status

□ Student □ Employed □ Unemployed □ Other

4 work experience?

5 If occupation status is employed which work sector?

6 what is your profession?

Section 2

Factors for usage and adoption of mobile banking

Please list down the factors affecting mobile banking adoption and usage in Ethiopia and explain in detail about how each factors affects adoption and usage of mobile banking

1) what are the factor for slow adoption and low usage of mobile banking in Ethiopia?

Litrture

Appendix 2

Number of mobile banking providing banks as of December ,2017

No	Name of mobile banking providing banks
1	Commercial bank of Ethiopia
2	Dashen bank
3	Wegagen Bank
4	Awash bank
5	Zemen bank
6	Birhan international bank
7	Lion international bank
8	Nib international bank
9	Bank of Abyssinia
10	United Bank
11	Addis international bank
12	Abay Bank
Industry total of m-banking user	2,446,884