COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACOUNTING AND FINANCE

FACTORS AFFECTING THE ADOPTION OF ELECTRONIC BANKING AND AGENT BANKING IN THE CASE OF SELECTED PRIVATE AND COMMERICAL BANKS.

B Y

Biks Misgan

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF (MSC) DEGREE IN ACOUNTING AND FINANCE

JUN, 2024 G.C.

Addis Ababa, Ethiopia

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ADVISOR Laxmikantham Padakanti (PhD)

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BY:

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ADVISOR:

Laxmikantham Padakanti (Ph.D.)

Jun , 2024.

Addis Ababa , Ethiopia,

Declaration

Herewith, I declare that, this thesis is prepared for the partial fulfilment of the requirements for the degree of master in accounting and finance entitled "Factors Affecting Adoption of Electronic Banking and Agent Banking in the Ethiopian Banking Industry (Case of Selected Five Banks in Ethiopia)" and was prepared with my own effort. This work is original in nature and has not been presented for a degree at any university. I have made it independently with the close advice and guidance of my advisor, and all sources of material used for the thesis have been duly acknowledged.

Declared By:

Biks Misgan

Signature _____

Date 19|12|2016

Confirmed By: Laxmikantham PhD)

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Date 20|12|16

Place and Date of Submission:

Addis Ababa University

Date _____

Endorsement

Herewith, I state that Biks Misgan has carried out this research work on the topic entitled "Factors Affecting Adoption of Electronic Banking and Agent Banking in Ethiopia: (in the Case of Selected Five Banks in Ethiopia)" under my supervision. This thesis paper has been submitted to Addis Ababa University, School of Graduate Studies, for the examination with my approval as a university advisor.

Advisor:

Laxmikantham Padakanti (Ph.D.)

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Date _____

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Finally, I wish to acknowledge the efforts and support of those individuals and their institutions that led to the success of this study, such as commercial bank employees and the four private employees their officials.

Abstract

The purpose of this descriptive study is to identify the variables and factors affecting the adoption of electronic banking and agent banking in Ethiopia's banking sector. A survey design was employed through the use of questionnaires sent out to the respondents. According to the report, the banking industry's biggest obstacles to implementing electronic banking and agent banking were a lack of skilled IT workers, insufficient national ICT infrastructure, a lack of government support, security risks, a lack of legal and regulatory frameworks, and a lack of competition from foreign and domestic banks. The study population comprised the selected five banks, namely Commercial Bank of Ethiopia, Awash International Bank, Dashen Bank, Bank of Abyssinia, and Addis International Bank. The collected data was analysed using descriptive statistics using SPSS version 26. The study also found that prospects for adopting electronic banking and agent banking systems were determined by perceived usefulness and cases of use. In order to support the banking industry, the study recommends that Ethiopian tel-com invest in ICT infrastructure developments. It also shows that the government establishes comprehensive legal and regulatory frameworks on the use of technological innovation and the use of third-party retail agents in the banking sector, closely monitors the banking industry, and strictly enforces adherence to e-banking and agent banking guidelines. Meanwhile, the banks should continuously ensure that agents are carefully evaluated.

Keywords: banking industry, adoption, e-banking, and agent banking

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List of Acronyms

ATM - Automated Teller Machine

CBE- Commercial Bank of Ethiopia

ECX- Ethiopian Commodity Exchange

EFT - Electronic Fund Transfer

E-banking - Electronic Banking

E-commerce Electronic Commerce

E-payment Electronic Payment

ICT -Information and Communication Technology

IT- Information Technology

NBE- National Bank of Ethiopia

PC -Personal Computer

POS -Point of Sale

SMS -Short Messaging Service

SPSS- Statistical Package for Social Scientists

TA -Technology Association

TAM -Technology Acceptance Model

TOE -Technology-Organization-Environment

TPB -Theory of Planned Behavior

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Banks operate in a highly competitive and dynamic business, so they need to use technology wisely and retain talented, motivated staff who can take advantage of new technologies while also always looking for existing ones. By employing technology, banks may achieve their intended aims and objectives, enhance overall development, and provide their customers with superior service. In today's business climate, computer applications are crucial for banks, and the internet has become the main channel for all banking, financial, and business activities (Magembe, B.A.S., and Shemi, A.P., 2002).

The components of essential goods and services, as well as how they were bundled, provided, delivered, and used, were all changing as a result of e-banking. It is a priceless and potent instrument that fosters innovation, boosts competitiveness, helps growth, and drives development. (Gupta and Kamel, 2008; 2005).

According to Olga Lustsik (2003), the financial services market was evolving at a rapid pace, which raises doubts about the survival of traditional banks in their current form by the end of the next few years. According to Mishra, R., and J. Kiranmai (2009), electronic banking is already widely used in wealthy nations and is rapidly changing in developing countries. Darley (2001) identified some factors that may be specific to Africa but also noted that e-commerce has been slow to spread to these nations. In the financial sector, electronic banking, also referred to as online banking, is a type of e-business. The internet was transforming the banking and financial industries by changing the nature of important goods and services, as well as how they were packaged, offered, delivered, and consumed." (Sathye, 1999).

According to Anuwar (2015), a study on the assessment of factors affecting the adoption of agent banking and electronic banking in the Ethiopian banking industry According to the study, the most significant challenges are the absence of appropriate legal and regulatory frameworks, political unrest in nearby nations, high illiteracy rates, and a dearth of interconnected financial networks. Information technology was being used by banks

and other organizations to increase corporate efficiency by providing services at the lowest possible cost and quality and drawing in new clients. Nath & Associates (2001).

Technological advances have been found to have an impact on banks' distribution networks. Mobile banking, CBE Birr, telebanking, PC banking, and, most recently, online banking is examples of how changes in distribution channels have fueled the development of banking technology. According to Goi (2005), paperless banking is now standards.

According to Byers and Lederer (2001) the world was witness a rapid change of information and information technology, which was transforming the banking sector.

The change of electronic payment systems worldwide, Ethiopia's financial intuition could not remain an exception in expanding the use of electronic banking and agent banking. The important of study to identify the factors that affects the adoption of electronic banking and agent banking in Ethiopia.

1.2. Statements of the problem

The total number of banks in Ethiopia 2024 was 31, of which 29 were private banks and two were government banks. The total population of Ethiopia in 2024 would be 129,719,718; 80% of the population would live in rural areas. Internet access and mobile phone penetration: all 31 banks in Ethiopia introduce e-banking and agent banking. The lack of formal banking services causes people with low incomes to use traditional methods of saving, such as investing in land, buildings, bullions, etc. Furthermore, the people in question were exposed to non-formal credit channels, including friends, family, and moneylenders, which may have undermined the spirit of entrepreneurship among the populace and impeded their capacity to enhance productivity and wealth in rural areas. Finally, but just as importantly, a sizable sum of money designated for the impoverished never makes it to the people for whom it is intended because it gets lost in a complex web of bureaucratic red tape and money leaks.

According to Tashmia, I., and Khumbula., M. (2011), mobile and agent banking present a remedial solution because they allow the government to directly make cash transfers to beneficiaries via their mobile wallet accounts, which is expected to reduce the government's subsidy bill and provide relief only to the true beneficiaries.

In order to increase further e-banking adoption in changing countries, a good analysis of the reduction and drivers of e-banking adoption was critical (Zhao, AL., 2008), By getting an in-depth focus on the factors and conditions that are changing countries' ability to fully adopt and realize their importance, strategic implications could be created for researchers and practitioners regarding how to encourage the change of e-banking and agent banking in developing countries. Although agent banking has garnered a lot of interest from the banking industry, it has not received a lot of attention from scholars. The agent banking system is not well known for the banking industry in Ethiopia.

1.3 Research Questions.

This study conducted with the five Ethiopian banks to investigate and assess the factors affecting the adoption of electronic banking and agent banking in the Ethiopian banking industry. Certain research questions are intended to address the study's stated objectives and effectively solve the research problem. Under this, the investigation was thought to respond to the following research questions:

1) What are the factors affecting adoption of E- banking and agent banking Ethiopia?

2) What are the benefits of electronic banking and agent banking in Ethiopia?

1.4 Objectives of the study

1.4.1. General objective

The general objective of this thesis is to study the factors affecting the adoption of electronic banking and agent banking in Ethiopian banking.

1.4.2. Specific objectives

The specific objectives of the study would be:

1. To identify factors affecting adoption of e-banking and agent banking .
2. To explain the use of e-banking and agent banking services among bank customers in Ethiopia.

3. To examines how lack of understanding affects the adoption of e-banking and agent banking services among Ethiopian bank clients.

1.5 The Significance of Study

This study was significant because it helped financial institutions, particularly the National Bank of Ethiopia; identify barriers to the adoption of electronic banking and agent banking. Finally, this study was expected to help other researchers who would be interested in conducting further studies regarding the issue under investigation by providing full information. Additionally, the study may offer suggestions for banks regarding the support given to quicken the system's practice of delivering service to clients through information communication, focusing on the elements that influence bankers' decisions regarding e-banking systems and agent banking.

1.6 Scope of the Study,

The national bank of Ethiopia and Ethiopian commercial bank management, in particular, value the study's breadth in identifying the difficult obstacles preventing factors affecting the adoption of electronic banking and agent banking. The government bank and private banks were chosen due to their considerable (important) availability of agent banking services and products, as well as the fact that they were physically near the researcher and had easy access to information. Due to resource and time constraints, the researcher selected four private banks and one government bank because the latter has a larger clientele than the former in the nation. The decision to use an agent and online banking was influenced by a number of factors. Numerous variables impacted the use of agents and online banking.

Therefore, the researcher will restrict analysis to the following factors and leave out any others: organizational variables, including financial and human resources; demographic characteristics, such as gender, age, educational attainment, income, and occupation; system trust; and relative advantages. Environmental factors, the legal framework, national technology for communication and information infrastructure, competitive pressure, and government support.

Five Ethiopian banks that were licensed to operate in the country and were a part of the National Bank of Ethiopia (NBE) have certain behaviors. Presently, every bank makes use of electronic banking and agent banking, yet several institutions have purposefully chosen to adopt this technology at a higher level than others. The banks that were chosen for this study

include the Commercial Bank of Ethiopia, the Bank of Abyssinia, Dashen Bank, Addis International Bank, and Awash Bank. The study's utilization of electronic banking and its use for technological indicators of performance were highly developed.

1.7. Limitation of study

The study was focus on the major factors of the adoption of e-banking and agent banking in Ethiopia bank industry. The study was Adoption of E- Banking and Agent Banking in Ethiopian Banking Industry: Prospects and Challenges limited to selected banks and their branches that are located only in Addis Ababa and excluded financial institutions other than bank. The reasons for this are Ethiopia is too large for the researcher to travel all over the country. From the total population five banks are selected based on banks that are partly implement E-banking products.

1.8 Organization of the paper

The paper is organized into five chapters. chapter one introduction, chapter two, the literature review, chapter three, the research technique, chapter four, the data presentation, analysis, and discussion, and chapter five, a summary of the findings, a conclusion, and a recommendation.

CHAPTER TWO: LITERATURE REVIEW

2.1 Background history of e-banking and agent banking in Ethiopia

E-banking, as defined by Plocek et al. (2013), is what consumers receive financially electronically. Online banking can be defined in various ways. Daniel defines electronic banking as the process by which banks provide data and service charges to customers via a variety of terminal devices, such as a personal computer, a mobile phone with browser software, a digital television, or a combination of these. Account access, resource relocation, and online purchasing of financial products or facilities are all services that must be provided at a high level of development. The client will save time and energy by avoiding large lineups in front of banks to make basic transactions. It is simple and acceptable to do transactions via e-banking and agent banking.

Acceptance by consumers has grown as a greater range of goods are now available, and electronic banking and agent technology for banking have advanced significantly in recent years. Such technology includes debit cards, computer banking, deposited value cards, and direct credit. According to Gautama , et al., (2014), it enables organizations to form new commercial partnerships through diverse global commercial relationships, test new products and services, undertake market research, and answer additional questions at a low financial and non-financial cost. Ethiopian commercial banks began offering digital banking services in late 2001. Since November 14, 2005, Commercial Bank of Ethiopia has held a visa membership. Inadequate infrastructure prevented CBE from taking advantage of its affiliation, even though it was the first organization to adopt an ATM-based payment system and obtain Visa membership. Meanwhile, Dashed Bank, which has avidly maintained its e-payments lead, has outperformed CBE since 2006. Dashen Bank now accepts Mastercard as well as Visa cards. In 2008, the bank received a Master Card membership license. The online banking system being changed with both banks is designed to provide a pine code of electronic data sharing gateway for clients, banks, and ECX while also allowing for a smooth transaction (GELETA, A. (2016).

On April 21, 2009, Dashen Bank secured an agreement with a South African electronic payment technology business to launch mobile banking. The bank is well-known for its innovative banking technology. Although Dashen Bank's new technology allows funds to be transferred from one account to another, the Ethiopian Commodity Exchange (ECX), Dashen Bank, and the CBE have signed the first electronic banking gateway. On April 21, 2009, Dashen Bank entered into an arrangement with Very, a South African e-payment technology business, to introduce mobile commerce.

The service was first established in Addis Ababa and made available to locals using ATMs (Gardchew, 2010). Dashen Bank was granted a license to use Payment Technologies' Gateway and product inventory card electronic payment processing solution under the deal. Dashen Mod Birr users can send up to 500 birr to other Mod Birr users at any time. According to Wubanchi, A. (2021). Implementing a comprehensive solution for card-based payment systems has been a slow process for the Commercial Bank of Ethiopia. The bank is noted for its innovative technology for banking. Dashen Bank was the first private bank in Ethiopia to offer internet commerce and mobile merchant transactions, according to Eendale (2017) and Amanyhun (2019). According to the Ethiopian National Bank (NBE), the legislation has to be developed in response to rising demand for banking services. In contrast to other countries, such as Kenya, where the cash transaction service M-Peas is extensively utilized, Ethiopia's regulatory structure requires service providers, such as Hello Cash, to collaborate with banks to spread the service.

2.2. Types of bank

E-banking is a platform range that includes internet banking (online banking), TV-based banking, mobile phone banking, and personal computer banking, which allow customers to access banking services using electronic devices such as PCs, personal digital assistants (PDAs), automated teller machines (ATMs), point of sale (POS), and touch-tone telephones. Alagh (2006) defines several types of e-banking, some of which are mentioned here.

2.2.1. Automated Teller Machines (ATM)

Electronic terminals known as automated teller machines (ATMs) give customers access to financial services at nearly any time. A consumer's ATM card and personal identification number are required to withdraw cash, make deposits, or transfer funds between accounts.

2.2.2. Point-of-Sale Transfer Terminals (POS):

Customers can make purchase transactions through the system using cheque cards, which are a new word for debit cards. There were some significant distinctions between this card and a credit card. Both the debit card holder's and the store's accounts receive the purchase funds immediately (Malak 2007).

2.2.3. Internet banking

Internet banking is an electronic banking system using web technology in which bank customers were able to conduct their business transactions with the bank through personal computer.

2.2.4. Mobile banking

Mobile banking is a service that enables clients to perform financial transactions such as account inquiries and fund transfers via short text messages (SMS). It is a simple way to get financial services without needing to go to a bank branch.

2.2.5. Telebanking

Telephone banking is an extension of telebanking. It is essentially an automated facility in which customers may access account information and make ordinary transactions via a keypad or touch-tone telephone without having to visit a bank branch or an ATM**.**

2.3. The importance of electronic banking and agent banking

2.3.1. Importance of e- banking

According to Wubanchi, (2021) ,After many years of integration into their economies, developed nations are realizing the value of electronic banking services and are increasingly choosing them as the preferred means of completing transactions. The significance of

electronic banking and agent banking systems can be seen from several perspectives, including:

Importance to customers

Customers gain greatly from both electronic and agent banking due to the convenience, time savings, and simple access to financial products and services. Customers could conduct transactions on their balance at any time and from any location, both within and outside of the country. There are no time or location limitations. Customers do not need to observe a branch for each payment, and there is no need to wait in a big queue. Customers thereby benefit from current services provided by electronic banking (*ADBIB, M. (2013).*

According to Adbib ,M. (2013). Cardholders should consider the security and convenience of utilizing cards for payment. Accepting cards can help businesses improve revenue because cardholders prefer to pay with their cards. Merchants may be able to lessen the risks and costs involved with managing cash.

Importance to banks

Banks that provide electronic banking services may profit from increased brand awareness and market response. In today's competitive environment, banking allows banks to find new consumers and compete with one another. According to olga , (2017). Banks that provide such services are regarded technological leaders. As a result, banks that provide the service may increase customer utility through change services. According to Adbib, M. (2O13). Offering safe e-banking services can help institutions avoid fraudulent activity. E-banking allows banks to save time, hence boosting the number of transactions and business. Other e-banking benefits can be quantified in monetary terms. Automated e-banking services provide an excellent potential way to maximize earnings (Vershinina, O. 2017).

Importance to the economy

E-banking and agent banking allow the banking industry to grow its customer base, resulting in more credit generation and a better economic scenario. Electronic banking had a tremendous positive impact on a country's economic development. As a result, boosting the use of payment cards could help governments save money and other expenses (Wubanchi, 2021).

2.3.2 Important(Advantage) of agent banking

To provide their services in several developing nations, banks have increase internet connection through thrust local "agents" or "correspondents." For instance, whereas many banks used to focus solely on traditional banking, agents in a number of countries are now authorized to offer many of the traditional products offered by banks. Banks have progressed up the product ladder to offer more complex financial products such as bank-backed insurance and asset financing.

Cost of Banking

Agency banking provides a significant opportunity for clients to minimize transaction costs, including travel, by delivering financial services in in remote and geographically separated areas. Furthermore, banks and other financial organizations usually have the desire or ability to establish official branches in these locations. Agent banks are obviously less costly and more flexible than traditional bank branches as they do not require the investment of staff and physical infrastructure other scientists, such Barasa, D. A., & Mwirigi, F., M. (2013).

Enhanced Accessibility to Banking Services

Based on Berger (1998), agent banks offer services similar to those offered by real banks. This includes deposits of money and, disbursement of loan and repayment debit, wages and pension deductions, money transfer, and the issuance of mini-bank statements. Berger further claims that the agent supports to opening new account, loan and debit payment uses, and cheque book requests, hence minimizing the need for the commercial bank operate branches globally. This is being replicated across the country, especially in rural areas.

Wider Market Coverage and Customer Loyalty

According to Christopher Wirtz, J. (2018). , the process of establishing loyalty can be viewed as a ladder, with the consumer being converted primary into a customers, then into a supporter, an advocate, and lastly into a partner. Finding loyal entrepreneurs necessitates targeting the segments to which the bank may provide higher value. The economic announced of customer loyalty frequently explain why one bank is more profitable than others. As a result, developing a greatly loyal customer base cannot be done as an afterthought; it must be integrated into a bank's overall business plan. The agency banking

model has done an excellent job of fulfilling this duty. According to Cohen (2002), the continued global growth of high-tech telecommunications infrastructure, along with the growing availability of advanced information technology services, is influencing practically each emerging business. Emerging industries are newly formed or reformed industries that have been created as a result of technological innovations, shifts in relative cost relationships, the emergence of new consumer needs, or other economic and sociological changes that elevate a new product or service to the status of a potential business opportunity.

2.4. Challenges of Electronic Banking

The challenges of e-banking applications presented a number of challenges concerning electronic banking, some of which have been discovered and made clear by previous studies. These challenges include technological, security concerns, infrastructure problems, legal and regulatory issues, and sociocultural issues.

2.4.1. Technological factors

The effective technology management is requires Successful implementation of agency banking. There are three major limited financial services challenges: limited scale, depth, and increasing cost of financial services. Essentially, the supply of financial services to a larger number of people, in particular rural areas, as typical branch networks are expensive (Helms, 2006 Studies indicate that technology plays an important role in enhancing financial access by delivering sustainable financial services to the underserved and unsaved (Stegman, Rocha, & Davis, 2005; Claessens, 2006). According to research, technology such as ATMs, mobile phones, and points-of-sale (POS) devices are increasingly being used to cut costs and expand access for low-income clientele. These technologies offered alternate avenues for the supply of financial services.

2.4.2. Security

Security One of the most difficult issues and fundamental requirements of e-banking is maintaining its security. Securing the procedure in e-banking includes authenticating the customer and banker's data and avoiding interception of the information to be communicated. This authentication could be accomplished via user IDs and passwords. Furthermore, a means

must be provided that precludes repudiation by both the merchant and customer once the payment process has taken place (Taddesse, W., & Kidan, T. G. (2005).).

According to Tadesse and Kidan (2005), software failures can be considered security problems as they damage significant sections of a network and result in significant expenses.

According to Tadesse, B. (2020). E-banking systems must additionally require multilateral security keys, i.e. the security needs of all e-banking participants. Unsecured e-payment systems may lose the trust of their users. Trust is one of the most important criteria in ensuring that users adopt e-banking systems. According to Tadesse and Kidan (2005), the key security problems are as follows.

Disclosure of private information

Tadesse and Kidan's (2005) study indicated the following main security issues: There were several possibilities for attackers to obtain sensitive information during electronic payment transactions. For example, hackers may intercept transmitted data on networks in order to get sensitive information. This information could be exploited to commit fraud, resulting in economic loss.

Counterfeiting

Counterfeiting is the act of creating new data or change old data that is technically valid but not legally allowed. Transfer of fund for double spending and creating bogus accounts are examples of counterfeiting. One common type of counterfeiting assault is the copying of electronic data from a payment card (for example, an ATM card), which involves production distribution cards and withdraw money from the accounts.

Illegal alteration of payment data

Illegal change of payment information may result in a monetary loss. This may lead to a loss of client confidence. Misdirected payments, incorrect payment amounts, or inaccurate electronic balances on electronic devices can all be caused by changes to transaction account numbers. Another issue with e-payment is the use of a fraudulent website by an attacker to obtain credit card numbers and other personal and/or financial information.

Taddesse and Kidan (2005) state that using cryptography-based technologies, like digital signatures and encryption, is the most common method of safeguarding e-banking services. It

would have to compromise between security and speed, though, as employing these technologies would slow it down and reduce its efficiency.

2.4.3. Infrastructure problem

Microfinance Nigeria (2010) study found that efforts by the Nigerian government and other financial and ICT stakeholders to transition Nigeria's payment system from a cash-dependent platform to a globally acceptable electronic-driven alternative are hampered by a lack of well-developed telecommunications infrastructure.

Another key issue related to this is frequent electric power outages. This would cause significant problems in e-banking activities, which rely heavily on power supplies. It would force banks to rely on generators, increasing operating costs. These issues were deemed impediments to the spread of e-banking services.

Regulatory and Legal Issues

A national, regional, or international set of laws, rules, and regulations were important prerequisites for the successful implementation of electronic banking services. Some of the main elements include rules on money laundering, supervision of commercial banks and money institutions by supervisory authorities, payment system oversight by central banks, consumer and data protection, cooperation, and competition issues (European Central Bank, 2002).

According to Mishra (2009), the virtual and global nature of e-payment also raises legal questions such as which jurisdiction would be competent and about applicable laws in disputed cases, the validity of electronic data, electronic contracts, and electronic signatures. Moreover, a legal and regulatory framework that builds trust and confidence, supporting technical efforts to meet the same, is another important issue that needs to be addressed.

In this regard, legislative support is essential for protecting the interests of customers and banks in various areas relating to e-banking and payment systems. Some of the main issues, like liability for loss in cases of fraud, allocation of loss in cases of insolvency, check truncation, evidence and burden of proof, preservation of records, prevention of fraud, etc., were to be clarified in the legislation (ECB, 2002). This could be done by adopting model laws at the global level, such as the UNCITRAL Model Law on E-Commerce (1996), the

UNCITRAL Model Law on E-Signatures (2001), and at the regional level, such as the SADC Model Law on Electronic Transactions and Data Protection (Mishra, 2009).

2.4.4. Socio-Cultural Challenges

Developing an electronic payment system that could be used internationally is made more difficult by historical and cultural differences in attitudes as well as the use of different currencies. According to Tadesse and Kidan (2005), the issue is exacerbated by variations in the level of efficiency and security required by persons from different cultural backgrounds and developmental stages.

2.5. Theoretical Review

The technology acceptance model (TAM) by Davis F. 1989, the theory of planned behaviour (TPB) by Ajzen 1985, Ajzen 1991, the unified theory of acceptance and use of technology (UTAUT) by Venkateshet al. 2003, the diffusion of innovation (DOI) by Rogers 1995, the technology an organisation environment (TOE) framework by Rogers and Fleischer 1990, institutional theory, and the Iacovou et al.

While DOI, TOE, institutional theory, and Iacovou et al. (1995) were firm-level models of IT adoption, TAM, TPB, and UTAUT were individual-level models (Tiago and Maria 2011). The next section will go over some of the above IT adoption models in depth for the adoption and practice of new technologies.

2.6. Conceptual Framework

To fulfill the research goal, the theoretical structure will be clarified by the dependent and independent variables which affect e-banking adoption.

2.6.1. Interruption of E-banking Equipment

According to (Bambore PL,2013). Electronic banking facility and customer satisfaction are taking currently selected banks in Ethiopia some elements which frustrated customer satisfaction and acceptance of electronic banking facility in selected bank commercial banks of Ethiopia. These include misplaced tools, cash-empty devices, blocked cards, infrequent ATM malfunctions, unreliable ATM service, a lack of specialists at all banks to handle ATM collapses, a lack of backup plans to provide customers with ATM service in the event of a

malfunction, a lack of E-banking services, inconsistent Telebanking, and insufficient technological advancements.

2.6.2. Lack of Trust on the System

According to Mayer et al. (1995), trust can be defined as revelry's readiness to be receptive to the actions of another party, either without the ability to control and supervise the other party, or with the hope that the trustee would accomplish a specific objective important to the trust. The capacity of banks to convince customers to adopt Internet banking is essential to their long-term success. Therefore, customer trust is essential to online banking (Jham, 2016).

Customers' faith in Internet banking is distinct, according to Yousafzai et al. (2009), because of the technology's pervasive use, the separation of the online environment, and the inherent ambiguity of conducting transactions over an open infrastructure. Internet technology and e-vendors play important roles in the provision of Internet banking services, even if it is regarded as a distinct type of e-service. According to Koufaris and Hampton-Sosa (2004), customers' propensity to make risky online decisions, such as providing credit card information, is influenced by their faith in the vendor and the electronic commerce system.

2.6.3. Lack of Awareness about E-banking and agent banking

Consumer acceptance of e-banking is influenced by their knowledge about it. Studies conducted on electronic banking indicate that some elements, like knowledge (Sathye, 1999; Polatoglu and Ekin, 2001), impact customers' decision to use the service. According to Sathye (1999), many customers were unaware of the benefits of e-banking. The clients' "realization of automated banking and the benefits" is what is meant by awareness at this point. associated with it, as well as their understanding of how to conduct banking transactions via e-banking."

According to Sathye (1999), one factor in the acceptability of electronic banking and payment is the lack of reaction. For instance, marketing announcements, radio and television advertising, websites, branches, and other promotional tools all show that marketing communications will have a encourage impact on customer acceptance of online banking. For example, marketing initiatives, radio and television advertising, websites, branches, and

other promotional tools all show that marketing communications will have a positive impact on customer acceptance of digital banking.

2.6.4. Demographic factors

Customer views and behaviors' about the adoption of new technologies, like e-banking, are significantly influenced by demographic characteristics. Some of the most significant demographic factors influencing the use of agent banking and e-banking were age, gender, income, and educational attainment.

Gender

The term "gender" describes how men and women use and accept new technologies differently, such as agent banking and e-banking.

According to Alagheband (2006), identifying influence affecting the adoption of e-banking services indicated that men represent the segment with the highest use of e-banking. Azouzi (2009) also discovered that crucial variable of gender has impacting customers' attitudes towards the adoption of e-banking.

Teka, B. M & Sharma, D. (2017), however, does not meaningful correlation between gender and e-banking use. Similarly, Muzividzi et al. (2013) discovered that a higher percentage of men than women use e-banking. Furthermore, gender had no impact on customers' adoption of electronic banking, according to Shadri et al. (2014).

Age

According to Yohannes (2010), the factors influencing Ethiopia's adoption of e-banking showed that younger people are more computers skilled and have an easier time adopting and using new technology.

Teka, . M., & Sharma, D. (2017) examined the hypothesis to identify the association between age and e-banking preference. Indicates that as the age group grows, the percentage preference for online banking gradually but steadily declines. This indicates that the 18 to 25 year old age group's percentage preference for e-banking is higher than the above-60 year old age group's % preference for e-banking. It implies that young and more educated people were better at their adoption of e-banking as compared to their counterparts

Educational Level

According to Yohannes (2010) conducted Higher education levels were found to use e-banking more frequently than lower education levels in Ethiopia, indicating that e-banking adoption is positively correlated with educational attainment. According to Edwin et al. (2014, Consumers' acceptance of e-banking and agent banking services is influenced by their degree of education and ICT skills

Organizational Factors

Iacovou (1995) and Grover (1993) claim that a variety of factors, such as business size, support from upper management, and access to capital and human resources, have an impact on an organization's decision to innovate in technology.

According to Jeyaraj, A. et al. (2006), organizational factors include the size of the company's human resources, organizational structure complexity as measured by centralization, vertical differentiation, and formalization, organizational culture, top management support, organizational scope of the business, and size-related issues like internal slack resources and specialization. The definition of it is given by Kvin Z. et al. (2004) and Tornatzky and Fleisher (1990) in terms of a number of descriptive measures, such as the size and scope of the firm, the degree of formalization, centralization, and complexity of its managerial structure, the caliber of its human resources, and the quantity of internally available lead time.

Financial and human resources

Every organization needed financial resources to implement innovations, and these resources were closely related to firm size (Iacovou 1995; Kuan 2001). The cost and resource availability associated with implementing innovations are critical factors that should be taken into account. Without ignoring the needs of the consumer, human resources that help banks acquire the managerial and technical know-how needed to accept and apply technology developments like the agency banking system were also crucial considerations.

2.7. Theory of Reasoned Action (TRA)

Fishbein and Ajzen (1975) created the theory of reasoned action (TRA), which is surely one of the most essential ideas for understanding personal behavior.

According to Fishbein and Ajzen (1975), p. 216, "an individual's positive or negative feelings (evaluative effect) about performing the target behavior" is the definition of attitude towards conduct. An individual's perception that a significant number of people think he should or shouldn't engage in the behavior in question is known as a subjective norm.

This theory emphasizes human behavior, norms, and beliefs and is used to study consumer behavior, beliefs, and norms regarding the adoption of e-banking and agent banking in the Ethiopian banking sector.

2.8. EMPERICAL REVIEW

2.8.1. Technological factors of e-banking and agent banking

Some studies (Ellias 2009 and Chang 2007) evaluate some important technological characteristics, while Salwani 2009, for instance, evaluates technology competency, which covers existing technology infrastructure and what skills are needed to use it in this context.

Perceived benefits

E-banking is said to offer both direct and indirect advantages to customers and the banking sector. Reduced operating costs, improved organizational functionality, higher productivity, higher efficiency, and higher profitability are some of the immediate advantages.

According to Lu et al. (2005), Kuan & Chau (2001), and Iacovou (1995), indirect advantages include chances or intangible benefits like higher client satisfaction through better services, an improved banking experience, and accommodating their changing needs and lifestyles.

Perceived risks

The biggest risk that banks have while providing e-banking services is customers' unwillingness to use the services, which prevents e-banking from growing as much. E-banking and other online transaction technologies have always raised security problems (Chang 2007; Rogers 2003). It is so anticipated that attitudes regarding the risks connected to online banking will impact its uptake and growth.

limits the use of e-banking (Environmental Factor) .

The model for e- and agent banking is conceptualized as shown below:

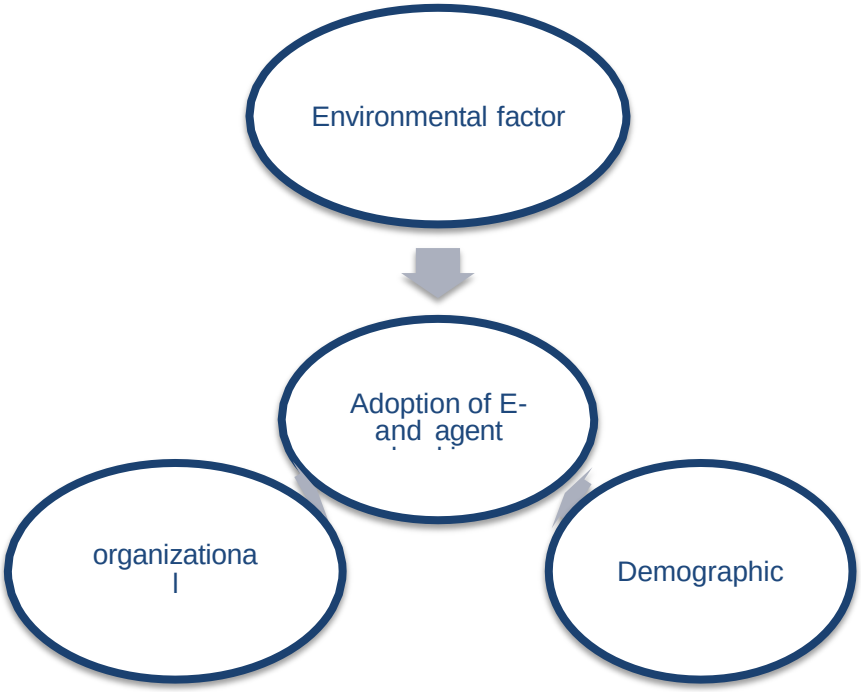

Figure-1: Conceptual Framework on the factors affecting the adoption of E- banking and agent banking

2.9. Adoption of E-banking

A product, service, or idea gets adopted when it is approved and used consistently. Customers must first go through a process of gathering information, forming an opinion, making a decision, using the product, and confirming that they are prepared to accept it. Many researchers have concentrated on an effecting process, which Rogers defines as the process by which a separate or additional decision-maker unit permits the application of an innovative idea, the decision to apply it, the validation of this decision, and the first information about the invention (Rogers and Shoemaker, 1971). The decision-making process

for inventions has five stages.

Information Innovativeness

Information innovativeness is influenced by socioeconomic characteristics, individuality traits, and communiqué behavior. According to Rogers (1995), innovativeness refers to how late a certain acceptance unit, or other acceptance unit, accepts new ideas in comparison to new scheme players. Primary adopters, in accordance with Rogers, are more likely to continue on than subsequent adopters since they have received more appropriate schooling .

Persuasion:

This phase shapes the potential adopter's mindset towards the invention. The potential adopter builds up favorable or negative attitudes towards the invention by projecting and forecasting future use pleasure and the threat of adoption, which is a major factor in changing the final decision. In this case, perceived attitudes towards an innovation are especially crucial, as are its relative benefits, compatibility, and complexity (Rogers, 1995)

Decision:

When someone participates in behavior's that lead to either accepting or rejecting the innovation, they reach the decision stage. The adopter now actively begins to look for information about the innovation that will guide their decision-making.

Stage of implementation: In this stage, mind information dispensation and decision making come to an end, but the behavioral change commence.

Confirmation stage:

The Innovation will continue to be used if satisfaction levels are high enough, but it is also encouraging when rejection occurs after acceptance. "Discouraging" refers to the latter scenario's reversal of the earlier ruling. Innovation adoption timelines can range from short to long. For instance, the acceptance decision may come months or years before an invention proves to be responsive. Adoption, then, can be concisely defined as: Using a product, service, or idea and staying with it is called adoption. Customers must go through a process of information, influence, decision-making, and verification before they are ready to accept a product or service, claims Rogrs and Shoemaker (1971).

CHAPTER THREE

3.1. Research Design and Methodology

This approach, which includes research design, target population definition, sampling strategy, inclusion/exclusion criteria, data collection methods, and sources, is used to get representative data from sampled banks.

3.2. Research design

The study was adopted descriptive research design to gather information that is relevant to examine the key factors affecting the adoption of E- banking and agent banking system. Descriptive survey design aimed to describe opportunity and challenges in adoption of agency banking in commercial bank of Ethiopia. The design provides a qualitative and quantitative description of trends, attitudes, or opinions of a population by studying a sample.

3.3 Define the Target Population

The target population of this study was all banks that are registered under National Bank of Ethiopia (NBE). There are 29 private commercial banks and 2 public banks that are registered under National Bank of Ethiopia (NBE).

3.3. Sample Design

According to ormrod ,(2005) the process of Sampling is to choosing, from a much large population, a group about which wish to make generalized statements so that the selected part represent the total group . The appropriateness of any sample design feature can be asses only in the context of the overall study objectives. The important point for the researcher is to be aware of the potential costs and benefits of the options and weight them in terms of the main purpose of the study. The Sample size is determined by time and budget of the researcher.

This study was used to draw the sample from the population. Because of time and budget constraint, the samples were restricted purposely to select five bank head offices, and their branches residing in Addis Ababa. Those banks are Commercial Bank of Ethiopia, Awash Bank, Dashen Bank, Bank of Abyssinia, and Addis international bank.

The questionnaires were distributed to all targeted categories of employees of five banks and branches operating in Addis Ababa, and the sample size for self-administered questionnaires were 200 employee's (CBE 75 employees, awash bank35 employees, Dashen bank 35 employees, Abyssinia bank 30 employees and Addis bank 25 employees) . The numbers of bank branches were Adoption of electronic and agent banking in Ethiopian Banking Industry: Prospects and Challenges purposively selected according to the number of branches found in Addis Ababa (the bank which had more branches was getting more chances to study.

3.4. Data presentation and analysis

Depending on the purpose of the study, the data would be arranged using both qualitative and quantitative analysis techniques. Throughout the qualitative analysis, respondents' ideas, feelings, experiences, and behavior will be thoroughly analyses. Tables, percentages, mean, standard deviation, and charts are statistical procedures used to analyze and comprehend data in quantitative analysis.

3.5. Method of data Collection

According to Kothari (2004), researchers should consider two types of data: primary data and secondary data. To gather important information, the researcher used primary data sources. Primary data were gathered using questionnaires. The questionnaires were structured in close-ended structure, and responses to the questions were measured on a five-point Likert rating scale, where: Strongly Agree (SA) = 5; Agree (A) = 4; Neutral (N) = 3, Disagree (D) = 2; and Strongly Disagree (SD) = 1. The questionnaires were distributed physically in person to the survey participants and follow-up call was made to provide feedback, clarification and remainder.

3.6. Data Analysis

The data obtained through questionnaires is analyses using descriptive statistics in the statistical package for social scientists (SPSS 26). A descriptive analysis was used to present and analyses the data collected on the many variables affecting electronic banking and agent banking adoption. The respondents' responses were analyses using frequency tables and percentages, mean, and standard deviation.

3.7. Methods of data analysis and presentation

The process data is assessing, evaluating, grouping, table, or recombining evidence to answer a study's basic proposition (Yin, 1989). Descriptive statistics are used to analyses the survey data using the statistical package for social scientists (SPSS 26). Wolcott (1994) and Creswell (2003) argue that qualitative research is necessarily interpretive, which means that the researcher interprets the results. After that, a qualitative analysis was done on the information gathered from the interviews and document reviews.

The qualitative data analysis technique is based on narrative and methodical summarizing of data collected from specialists at the many institutions indicated above.

CHAPTER FOUR

4. Result and Discussion

4.1. Introduction

This chapter presents the results and discussions of the factors affecting adoption of electronic banking and agent banking in Ethiopian banking industry. A descriptive statistical analysis were used to present and interpret the data collected on various variables of factors affecting electronic banking and agent banking. Frequency tables and Percentages, mean and standard deviation were also to analyze the responses of the respondents.

A total of two hundred (200) questionnaires were distributed to five purposely sampled one government bank (commercial bank of Ethiopia) and four private banks (Awash Bank, Dashen Bank, Abyssinia bank and Addis bank) and the researcher received one hundred eighty(180) responses from a total of two hundred (200) questionnaires distributed, which represents (90%) response rate, thus enabling meaningful data analysis.

4.2. Respondent demographic profile

The study participants on the survey questionnaire have different personal information; besides these differences, they introduce different responses towards electronic banking and agent banking usage and the factors affecting the adoption of e-banking and agent banking. The following discussion shows these differences.

The demographic profile of respondents who participated with in gender, age, educational level, Occupation and monthly income as shows table mean score and slandered deviation.

Table 4.3 Gender, age and educational back ground level of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	**Male**	**110**	61.1	61.1	61.1
	Female	**70**	38.9	38.9	100.0
	Total	**180**	100	100.0	
Age	**20-30**	62	34.4	34.4	34.4
	31-40	61	33.9	33.9	68.3
	41-50	40	22.2	22.2	90.6
	above 50	17	9.4	9.4	100.0
	Total	180	100	100.0	
Education level	Diploma	1	.6	.6	.6
	first degree	149	82.7	83.3	83.3
	MSC	30	16.7	16.7	100.0
	Total	180	100	100.0	

Table 4.3 shows gender participates of sixty one (61%) were male and thirty nine (39%) were female. This shows that most of the study participants were male.

However the above table indicates the age groups into which respondents fell 34.4 (34.4%) of the respondents in the 20 to 30 age group, 39.9 (39.9%) of them in the 31 to 40 age group, 22.2 percent (22.2%) in the 41 to 50 age group. and 9.4% the age is above 50. The most participation in the study is the age of 20-30 ages.

The education level indicates that 82.7 (82.7%) of the respondents have a first degree, 16.7 (16.7%) have a master's degree and 0.6% is diploma. This shows that the majority of respondents were first degree holders.

Table 4.4 Occupation and monthly income

		Frequency	Percent	Valid Percent	Cumulative Percent
Occupation	Commercial bank employee	75	41.7	41.7	41.7
	private employee	105	58.3	58.3	100.0
	Total	180	180	100.0	
Monthly income	5000-9000	31	17.2	17.2	17.2
	Abave9000	149	82.8	82.8	100.0
	Total	180	100	100.0	

Table 4.4 Indicates that 58.3% of the participants were drawn from a sample of private employee, while 41.7% of the responses came from a government employee. The private employee is more participating. The table also shows that the participants' monthly income ranges from 5,000 Birr to 9,000Birr is percentage of Birr is 17.2%, and the percentage of monthly income exceeding 9000 is 82.8%.

Table 4.5 Awareness of e- banking and agent banking

Awareness was focus on the effects of adoption of new technology for organizations. In this section three external environmental factors were discussed, these were Information of National ICT infrastructure, Legal and regulatory framework, Government.

Factors	SA(5)	A(4)	N(3)	DA(2)	SDA(1)	Mean	STD
The bank instructs its clients and runs advertisements to use electronic banking and agent banking through mass media	90	61	18	8	3	3.02	.93
	50%	33.9%	10%	4.4%	1.7%	100%	
I get informed about the service of e-banking and agent banking outside the bank.	**74**	70	19	11	6	3.4	1.038
	41.1%	38.9%	10.6%	6.1%	3.3%	100%	
I get informed about the service of e-banking and agent banking outside the bank..	**75**	68	20	13	4	3.57	.826
	41.7%	37.8%	11.8 %	7.2%	2.2%	100%	
I have informed about the service fees and charges when using e-banking service have informed about owed transaction limit.	**77**	76	21	4	2	3.8	.932
	42.8%	42.2%	11.7 %	2.2%	1.1%	100%	

According to table 4.5 which shows that 50% strongly agree, 33.9% agree, and 1.7% strongly disagrees, the majority of respondents were that **t**he bank instructs its clients and runs advertisements to use electronic banking and agent banking through mass media with the mean valve of 3.02 and standard deviation of 0.93.

This shows that the bank advertises and teaches the customers to use e banking and agent banking through mass media. The other hand 41.1% strongly agree and 38.9% agree the respondents were get informed about the service of e-banking and agent banking outside the banks with, the mean and standard deviation of 3.4 and 1.038 respectively. The majority of respondents were strongly agreed that I get informed about the service of e-banking and agent banking outside the bank. In other hand 42.8% strongly agree and 42.2% agree and 2.2% and1.1% strongly dis agree on get informed about the service of e-banking and agent banking outside the bank with the mean and standard deviation of 3.3 and 0.826 respectively. For the question of I have informed about the service fees and charges when using e-banking service have informed about owed transaction limits with the mean and standard deviation of 3.8 and 0.932 respectively.

Table 4.6 Interruption of E-banking and agent banking Equipment's

Factors	SA (5)	A (4)	N (3)	DA (2)	SDA (1)	Mean Score	Std,dev
No other systems which substitute ATM facilities for customers when temporary problem happen in the machine.	31	61	49	30	9	4.00	1.108
	17.2%	33.9%	27.2%	16.7%	5%	100%	
Absence of sufficient technicians in all banks who solve breakdown of ATM machine	**76**	72	21	9	3	4.02	0.932
	41.6%	40%	11.7%	5%	1.7%	100%	
My bank has acceptable ICT infrastructure to conduct Electronics banking and agent banking**.**	**67**	79	15	10	8	3.2	1.069
	37.2%	44.4%	8.7%	5.6%	4.4%	100%	
ATM usage in my bank branch has led to timely and effective withdrawal of cash	68(38.3 %)	82(45.6)	19(10.6 %)	8(4.4) %	2(1.1%)	3.3	0.942
When there is an ATM breakdown my bank handles the problem faster.	**82**	69	19	8	2	3.5	.932
	45.6%	38.3%	10.6%	4.4%	1.1%	100%	
Slow internet connection reduces the acceptance rate of e banking and agent banking services.	**40**	86	27	24	3	3.9	1.148
	22.2 %	47.7%	15%	13.3%	1.7%	100%	
Because of connection problem sometimes there is a difficulty to confirm transaction takes place or not	**48**	83	22	18	9	4.02	1.148
	26.7%	46.1%	12.2%	10%	5%	100%	

Table 4.6 displays the study's findings: Of the respondents, 17.2% and 33.9% agreed and strongly agreed with their bank with the mean value of 4.0 and the standard deviation of 1.108, respectively, and there were no alternative systems that provide consumers with ATM services in case of temporary issues with the machine. However to the study's findings, there aren't enough technicians in any bank to fix ATM malfunctions, the respondents is agree with the mean value of 4.02 and a standard deviation of 0.932. Of the respondents, 41.6% and 40% strongly agreed and agreed, and 5% and 1.7% disagreed and strongly disagreed. But according to the study's findings, 44.4% and 38.8% of the respondents strongly agreed and agreed, respectively, while 5% and 4.4% strongly disagreed. With a mean value of 3.2 and a standard deviation of 1.069, my bank's ICT infrastructure is suitable for conducting agent banking as well as electronics banking.

As can be seen from the table, 45.6% and 38.3% of respondents strongly agreed and agreed, and 4.4% and 1.1% disagreed and strongly disagreed, respectively, were the study's findings. My bank responds to ATM malfunctions more quickly than theirs, the response mean valve of 3.3 and a standard deviation of 0.89. As the table shows, the result of the study was that 47.8% and 22.2% strongly agreed and 13.3% and 1.7% strongly disagreed dis agreed on the slow internet connection reduced the acceptance rate of e-banking and agent banking services with a mean value of 4.02 and a standard deviation of 1.148. The other hand shows the result of the study that 26.7% and 46.1% of the respondents strongly agreed and agreed, and 10% and 5% strongly disagreed. Because of connection problems, sometimes it is difficult to confirm whether a whether a transaction takes place or not, with a mean value of 4.2 and a standard deviation of 1.097

Table 4.7Trust of e-banking and agent banking

Factors	SA(5)	A(4)	N(3)	DA(2)	SDA(1)	Mean	STD
Customers have great degree of belief on the bank and were satisfied with safety of electronic banking facility delivered by the Bank.	78	70	17	10	5	4.5	.992
	43.3%	38.9%	9.4%	5.6%	3.8%	100%	
I trust in the safety of online money transfer.	**85**	36	32	24	3	4.15	1.158
	47%	20%	17.8%	13.3%	1.7%	100%	
I am bothered to custom Electronic banking facility because other people might be capable to access my account.	**81**	72	12	9	6	2.95	.994
	45%	40%	6.7%	5%	3.3%		
I am not believed that trustworthy information is transported securely from bank to clients.	77	63	21	11	8	4.16	1.092
	42.8%	35 %	11.7%	6.1%	4.4	100%	

Table 4.7 presents the study's findings, which indicate that, with a mean value of 4.5 and a standard deviation of.992, 43.3% and 38.9% of the respondents strongly agreed that customers have a great degree of belief in the bank and were satisfied with the safety of the electronic banking facility delivered by the bank.

With a mean score of 4.15 and a standard deviation of 1.158, 67% of research participants strongly agreed and agreed that they trusted in the security of online money transfers, while

just 1.7% of respondents disagreed. In additional query asked respondents if they were concerned about their accounts being accessed by third parties due to the bespoke electronic banking services. The respondents' mean score was 4.16 , with a standard deviation of 1.092; they were split between 3.3% who did not agree and 6.7% who said they were indifferent on the matter. Of the respondents, 45% and 40% strongly agreed and agreed.

Table 4.8 Demographic factors and the adoption of E-banking and agent banking

Consumer attitudes and behaviors regarding the adoption of new technologies, like e-banking, are significantly influenced by demographic characteristics. The demographic factors that had the biggest effects on the use of agent banking and e-banking were age, gender, income, and educational attainment. Table 4.8 below lists the empirical research pertaining to these significant demographic characteristics from the standpoint of e-banking and agent banking usage.

Factors	SA(5)	A(4)	N(3)	DA(2)	SDA(1)	Mean	STD
Male customers of the bank more exercise the e-banking services than female customers.	35	60	49	28	8	3.52	1.106
	19.2%	33.3%	27.2%	15.6%	4.4%	100%	
A high amount of illiteracy upset the informal practices of e- banking and agent banking.	**60**	51	32	29	8	4.0	1.2
	33.3%	27.8%	17.8%	16.1%	4.4%	100%	
Clients level of literacy weight the adoption of e banking	**48**	81	30	12	9	4.01	1.045
	26.7%	45%	16.7%	6.67%	5%	100%	
Customers those have more income use e-banking service than customers who have low income.	48	80	32	16	2	3.6	.991
	26.7%	44.4%	17.8%	8.9%	1.1	100%	
Young clients of the bank consume e- banking facilities than old clients.	81	66	20	8	5	4.83	.968
	45%	36.7%	11.1%	4.4%	2.78%	100%	

Table 4.8. indicates that, with a mean score of 3.52 and a standard deviation of 1.106, the majority of respondents strongly agree and agree 35 (19.4%) and 60 (33.3%), respectively, with the statement that "male customers of the bank more exercise the e-banking services than female customers e-banking and agent banking."

Likewise, with a mean score of 4.00 and a standard deviation of 1.2, the majority of respondents 60 (33.3%) and 51 (27.8%), respectively strongly agree and agree, indicating a significant degree of illiteracy that disrupts the informal practices of e-banking and agent banking. This table, which has a mean score of 4.01 and a standard deviation of 1.045, demonstrates that most respondents strongly agree and disagree, respectively, with 48 (26.7%) and 81 (45%) clients' level of literacy weighting the adoption of e-banking and agent banking. Similarly, with a mean score of 3.6 and a standard deviation of.991, clients with higher incomes use e-banking services more than those with lower incomes. In addition, the table, which has a mean score of 4.8 and a standard deviation of.968, reveals that the respondents strongly agree and agree, respectively, that younger bank customers use e-banking services more than older clients 81 (45%) and 66 (36.3%). The majorities of respondents strongly agrees and disapprove, respectively, as the following table demonstrates, with 48 adoptions of e- banking and agent banking.

4.9. Organization factors

Organizations are different in their preference to adopt technological innovation (Iacovou 1995; Grover 1993), influenced by a number of factors, like firm size, top management support, and financial and human resources.

Table 4.9 Organization factors

Factors	SA(5)	A(4)	N(3)	DA(2)	SDA(1)	Mean	STD
Applying technological innovation needs large investment budget.	64	66	22	19	9	3.53	1.15
	35.6 %	36.7 %	12.2 %	10.6 %	5%	100%	
Banks need experienced human resource in order to appliance e-banking and agent banking.	**68**	61	40	8	3	4.5	.972
	37.8%	33.9%	22.2%	4.4%	1.7 %	100%	
Banks need experienced IT staffs in performing technological innovation.	**83**	47	28	13	9	4.55	1.053
	46.1%	26,1 %	15.6%	7.2 %	5 %	100%	
Technical and managerial abilities of personnel on using Technological innovation have impact on adoption e banking and agent banking.	**46**	83	29	11	11	4.5	1.062
	25.6 %	46.1 %	16.1 %	6.1 %	6.1 %	100%	

Inaccessibility of experienced and capable employee in related with e-banking is the trial for banks to exercise e-banking	**64**	50	51	9	6	1.91	1.082
	35.6 %	27.8 %	28.3 %	5 %	3.4 %	100%	

Table 4.9 indicates that, with a mean score of 3.53 and a standard deviation of 0.93, the majority of respondents agreed that the bank advises its customers to use agent and electronic banking through mass media advertisements, with 33.9% strongly disagreeing, 50% strongly agreeing, and 1.7% strongly disagreeing. This demonstrates how the bank uses the media to promote itself and instruct clients on how to use agents and online banking. On the other hand, with a mean and standard deviation of 4.55 and 1.038, respectively, 41.1% strongly agree and 38.9% agree that the respondents were informed about the services of e-banking and agent banking outside of the banks. The vast majority of respondents firmly agreed that I should learn about e-banking and agent services.

In addition, the table reveals that, with a mean score of 4.5 and a standard deviation of 1.062, the respondents strongly agreed and agreed, respectively, with 46 (25.6%) and 83 (46.1%) technical and managerial abilities of personnel on using technological innovation. In the same way, 64 (38.6%) and 50 (27.8%) of the respondents strongly agreed and disagreed, appropriately. An average score of 1.91 with a standard deviation of 1.082 indicates that the trial for banks to implement e-banking is the inaccessibility of competent and experienced staff in relation to e-banking.

CHAPTER FIVE

5. Summary of Findings, Conclusion and Recommendation

5.1. Summary of Findings

In summary, this study has determined several aspects effects affecting the adoption of electronic banking and agent banking, identified by the technology, organization, environment framework. The study's general conclusion was consistent with other studies on technology adoption in developing countries.

According to the technology-organization-environment framework, the study's findings highlighted elements that factors affect electronics banking and agent banking. The most important aspect was a lack of a suitable national ICT infrastructure. As organizational reasons, a deficiency of funds, human resources, and top management support came in second, third, and fourth place, respectively.

One of the challenges that were noted was the absence of government backing for the provision of infrastructure. The study's findings identified multiple factors affecting to the adoption of electronics banking and agent banking in addition to the technology-organization-environment framework (TOE) framework.

The adoption of electronic banking and agent banking has been limited by a number of factors, including the maximum limits on the use of electronic banking products, the daily withdrawal and deposit limits from agent banks, retail customers' proximity to bank branches, risk management practices in agent banking, and cooperation with other banks on a variety of issues, such as accepting deposits from agents on behalf of other banks. The use of electronic banking and agent banking presents both opportunities and challenges for the Ethiopian banking sector. The study's findings identified the perceived advantages of adopting e-banking and agent banking.

5.2. Conclusion

The analysis presented in the previous section results in the following conclusion. The Ethiopian banking industry has not embraced e-banking systems such as ATMs, mobile banking, online banking, and point of sale terminals, CBE birr and others very well. This is

because ICT infrastructure is currently in its early stages of development, and poor internet and mobile network quality offer major obstacles to the effective distribution of services by agents and e-banking.

In addition to national ICT infrastructure the firm size plays important role in facilitating the required financial resource and human resource for adopting electronics banking system. Lack of skilled ICT personnel in implementing technological innovation is another challenge for the banking industry of Ethiopia. Technical and managerial skills available in Ethiopian banks for the adoption of electronics banking are also limited. This is influence the choice of technology in Ethiopian banking industry. When it comes time to begin putting the electronics banking ideas into action, strong top management support becomes a critical prerequisite. With a capable and aggressive upper management team adoption of electronic banking and agent banking in the Ethiopian banking Industry: Opportunities and Challenges With support, the Ethiopian banking sector will be able to start extensive organizational change initiatives to make agent banking and e-banking easier. The banking industry in Ethiopia faces obstacles in embracing new technology innovations due to a lack of government backing, with government initiatives playing a major role in deciding the scope and deployment of e-business adoption. The banking business faces challenges from the degree of security risk connected with e-banking products, the lack of trust in security, and the absence of physical security in agent locations. A number of the factors affecting the country's electronics banking system are the amount of money that can be taken out of ATMs each day, the amount that can be transferred using mobile banking, and the amount that can be paid using POS machines each day.

Other challenge of adoption of agent banking in Ethiopia include the maximum balance that should be maintained in a mobile agent account of Birr 50,000.00 and a daily transaction (debit) cap of Birr 10,000.00; retail agents' close proximity and accessibility to a bank branch; collaboration with other banks on a number of issues, such as receiving deposits about agents on behalf of other banks; and risk management of agent banking.

According to the study's findings, the banking sector benefited greatly from the use of adoption of electronic banking and agent banking in Ethiopian banking industry: Prospects

and Challenge access to the bank service by both existing and new customers and enhancing financial inclusion.

5.3. Recommendations

Based on the above conclusion the researcher results, the following points that will help the banking industry of Ethiopia in reducing the factors affecting adoption of electronic banking and agent banking system;

- Ethio telecom has to help the banking industry by assisting with the growth of ICT infrastructure in order to improve service. Without a sufficient level and quality of a national ICT infrastructure, agent banking and e-banking adoption and use cannot do well.
- Banks have to start their efforts aimed at increasing prospective users' direct awareness of concerns including privacy and security concerns, as well as the relative benefits of using agent banking services and electronics banking products
- The implementation of third-party retail agents presents several risks to the effective oversight and regulation of banks. These problems include those relating to operations, money laundering, credit, and reputation. Therefore, it is advised that while the banks continuously offer thorough agent vetting, the regulator takes a tight eye on the banking industry and strongly enforces commitment to the agent banking principles.
- Implementing an adequate legal and regulatory framework on the implementation of technological innovation and the use of third-party retail agents in the banking industry is a major objective for the National Bank of Ethiopia (NBE).
- The government considers allowing foreign banks entry to enhance the competition and introduction of modern technology in the banking sector.

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Appendix I

ADDIS ABEBA UNIVERSITY COLEGE of Business and Economics

Department of Accounting and Finance

POST GRADUATE STUDIES PROGRAM

Questionnaire for bank employees

Dear Sir/Madam;

My name is Biks misgan, I am currently a final year student at Addis Ababa University, studying for my MSC in accounting and finance within the Accounting and Finance Department. My current research topic is focused on Factors Affecting Adoption of e - banking and agent banking. The main objective of this study is to identify influence of organization factors of adoption of e-banking and agent banking in bank service among Ethiopian consumers.

I would be grateful if you could take time of your busy schedule to provide answers to the questions raised to enable me to complete the study. Any information provided would only be used of academic purpose. As a result, it would be kept confidential and utmost secrecy would be maintained.

Thank you

Yours faithfully,

Biks misgan

Questionnaire on Factors Affecting Adoption of e -banking and agent banking

Dear Respondents,

This questionnaire is designed to gather information about factors affecting the adoption of e banking and agent banking service. All responses would be used to conduct a study for partial fulfillment of the requirements of the Degree of Master of Accounting and Finance. I would like to assure you that you would be guaranteed confidentiality as I do not ask your name here and your responses would be used only for research purpose. Besides, this survey should only take about some minutes of your time. I am grateful for your cooperation in advance**.**

Biks Misgan

General Instruction

Part I: General Information

Please indicate the following by ticking (√) on the spaces in front of the response options:

1. Gender of the respondent A. Male ☐ B. Female ☐

2. Age of the respondent

A. 20-30 years ☐ B. 31-40 years ☐ C. 41-50 years ☐

D. 51-60 years ☐ E. Above 60 years

3. Educational level of the respondent

A. Diploma holder---------- B. First degree holder----------

C. Master's degree ----------D. Above Masters ----------

4. Main occupation of the respondent: 1. Government Employee ☐ 2. Private ☐

5. Monthly income of the respondent (in Eth. Birr):

1. Less than birr 4000 ☐ 2. Birr 4001-5000 3☐. Birr 5000-9000 ☐

4. Above birr 9000 Birr☐

Part II: Factors affecting adoption of e- banking and agent banking**.**

Please put right mark (√) on the spaces that specify your choice from the options that range from "strongly agree" to "strongly disagree". Each choice is identified by numbers ranging from 1 to 5. 1 Strongly Disagree (**SD**) 2-Disagree (**D**) **3**- Neutral (**N**) **4**- Agree (**A**) **5**- Strongly Agree (**SA**)

Awareness of e-banking and agent banking	SA(5)	A(4)	N(3)	DA(2)	SDA(1)	
1. The bank advertises and teaches the customers to use e banking and agent banking through mass media .						
I get informed about the service of e-banking and agent outside the bank.						
2. . I have informed about the risks may face when using e banking and agent banking service .						
3. I have informed about the charges and service fees when using e-banking and agent banking service have informed about owed transaction limts .						
Interruption of bank						
1 . there is no other systems which substitute ATM facilities for customers when temporary problem happen in the machine.						
2 Absence of sufficient technicians in banks who solve breakdown of ATM machine .						
3.My bank has acceptable ICT infrastructure to conduct e banking and agent banking						
4. To use ATM in my bank branch has timely and effective withdrawal of cash or money.						
5. When an ATM is breakdown my bank handles the problem faster.						
6. the internet connection 1s low to reduces						

the acceptance rate of e banking and agent banking services.						
7. The-connection problem sometimes there is a difficulty to confirm transaction takes place or not.						
Trust						
1. Customers have great degree of belief on the bank and were satisfied with safety of e-banking facility delivered by the Bank.						
2 . I trust in the safety of online money transfer.						
3. I am bothered to custom Electronic banking facility because other people might be capable to access my account ..						
4.I am not believed that trustworthy information is transported securely from banks to clients						
Demographic Factors						
1. Male customers of the bank more exercise on the E -banking services than female customers.						
2. A high amounts of illiteracy upset the informal practice of E-banking. Clients level of literacy weight the adoption of e banking and agent banking.						
3. Customers more income use e-banking and agent banking service than customers who have low income .						
4. Young customers of the bank consume e-banking and agent banking facilities than old customers. .						

1. Applying technological innovation needs large investment budget.						
2. Banks need experienced human resource in order to appliance e- banking and agent banking.						
3. To implement technological innovation, banks require knowledgeable IT personnel.						
4. Technical and managerial abilities of personnel on using technological innovation have impact on adoption e -banking and agent banking.						
5. Inaccessibility of experienced and capable employee in related with e-banking is the trial for banks to exercise e-banking and agent banking.						