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FACTORS AFFECTING ADOPTION OF ELECTRONIC BANKING SERVICES AT CBE

GENET YITAYEW

**A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE
DEGREE OF MASTER OF BUSINESS ADMINISTRATION IN
FINANCE**

MARCH 2021

ADDIS ABABA, ETHIOPIA



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ADVISOR: ABEBE YITAYEW (Ph.D)

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DECLARATION

I, the undersigned, declare that this thesis entitled is my original work; under the guidance and suggestion of the research advisor and that necessary materials used for the study have been suitably recognized. It is obtainable for the partial contentment of the position of MA in business administration in finance. This study has not been submitted for any degree in this university or any other association.

Declared by

Name_____

Signature_____

Department_____

Date_____

STATEMENT OF CERTIFICATE

This is to certify that the thesis prepared by **Genet Yitayew Zeleke**, entitled “FACTORS AFFECTING ADOPTION OF ELECTRONIC BANKING SERVICES AT CBE” submitted in partial fulfillment of the requirements for the degree of Master of Business Administration in Finance and meets the Accepted standards with respect to originality and quality.

Approved By

Name of Advisor: _____, Signature: _____, Date: _____

External Examiner: _____, Signature: _____, Date: _____

Internal Examiner: _____, Signature: _____, Date: _____

Acronyms

ANOVA	Analysis of Variance
ATM	Automated Teller Machine
AVR	Automated Voice Response
CBE	Commercial Bank of Ethiopia
E-BANKING	Electronic Banking
E-PAYMENT	Electronic Payment
ICT	Information Communication Technology
IT	Information Technology
IB	Internet Banking
MB	Mobile Banking
NBE	National Bank of Ethiopia
POS	Point of Sale
PR	Perceived Risk
SMS	Short Message Service
SPSS	Statistical Package for Social Science
TAM	Technology Acceptance Model
TPB	Theory of Planned Behavior
VIF	Variance Inflation Factor

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Abstract

The reasoning of this investigation was to survey factors that influence customer's acceptance of e-banking in CBE. Data was gathered through questionnaire distributed to a target of 400 respondents with response rate of 95.4 % from customers of the selected branches. Quantitative research approach was used to answer research questions. The collected data was analyzed using SPSS version 22 for descriptive and inferential analyses. The relationship and influence of the factors was analyzed using Pearson correlation and multiple regressions. The outcomes of the research revealed that the explanatory variables awareness on e-banking service, interruption of e-banking equipment, trust and demographic factors were identified as significant effects on e-banking adoption. Approaches are also suggested to enrich the e-banking services including making websites more user-friendly, reducing users risk concerns and the role of government in terms of improving ICT infrastructure. Finally, in order to bring about sustainable adaptation of e- banking services by financial institutions which best serves the customer needs, more research works are suggested to be done to further analyze the participation of e-banking services to the larger economic transactions.

Keywords: E- banking, adoption, CBE

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the Study

Speedy emergent of ICT is knocking the door of each institute in the globe, and Ethiopian banks would never be exceptional. In the face of fast extension of electronic payment (E-payment) systems all over the world, Ethiopian's financial sector cannot be an exception in expanding and solicitation of technology (Bultum, 2014). ICTs innovation changed the way of carrying out business transactions and meeting the increasing demands of customers for the majority organizations. The uses of ICTs in the banking segment has been seen in terms of its prospective to expand client epicenter, decline transaction expenses ,get better the quality and appropriateness of response, open windows of opportunities for promotion and labeling, smooth self-service and facility customization as well as getting adequate customer communication and relationship (Atinkut, 2018).

E -banking allows consumers to check the amount in their accounts, transfer funds as well as order electronic bill payments. And also the customer can book transport, travel package and in addition to viewing actual images of their checks or deposit slips. The major profits to banks are cost reduction, attracting new fragments of the inhabitants, capability, improvement of the bank's standing and enhanced consumer facility and pleasure (Jayawardhena and Foley, 2000). To sum up, electronic banking provides various benefits to both service providers and their customers.

Ethiopia have not passed a legislation regarding E-commerce concerns such as enforceability of the legitimacy of electronic contracts, digital signatures and intellectual copy right and restrict the use of encryption technologies and High rates of illiteracy. Illiterateness rate is a severe issue in the implementation of E-banking in Ethiopia as it obstructs the ease of access of banking facilities. For inhabitants to completely benefit from the E-banking, they would not merely recognize in what way to read and transcribe but furthermore acquire basic ICT knowledge (Bultum, 2014).

CBE is the first bank in Ethiopia established in 1942.It played a huge role in the economic progress and improvement of the country. Commercial bank of Ethiopia pools a wide-ranging

money base with extra 37,894 talented and committed permanent employees and it has more than 1456 branches overextended through the nation. At present CBE has over 22 million account owners plus the mobile and e-banking customers also reached to 2.5 million and active ATM card holders reached more than 8 million as of June 30, 2019 (CBE June 2019 report). In Ethiopia money is static the main governing mode of give-and-take, and automated fee methods are at a rising stage. Moreover, banking technology in Ethiopia requires a lot of effort and resources to be easily adopted by customers.

Now a day, e-banking in Ethiopia is an early stage therefore it needs a lot of effort and resources to be easily adopted by customers. The up to date e-banking technique like Automated Teller Machine (ATM), Internet banking, Mobile banking, POS and others are brand new to the Ethiopian financial sector. Therefore, in order to help banks improve electronic banking adoption by their customers, it is crucial to survey elements that affect customers to adopt electronic banking service. So the main determination of this research is to look at elements which affecting electronic banking adoption at CBE customers.

1.2 Statement of the Problem

E-banking was a fresh technology in Ethiopia which desires a lot of educational input to service providers concerning the factors distressing e-banking acceptance. The delivery of service mainly at the office level lead customers to commit longest transaction time, repetitive transaction errors, service inconvenience, lower supervision of their bank accounts and lower reliability, etc. (Aklog, 2018).

CBE at this time provides different e-banking products to customer. But the provided e-banking products (services) are not adopted (used) as expected. Due to this most CBE staffs involve to awareness creation to adopt e-banking by the customer but the challenge of adoption still continuous. In advance, a detailed understanding of the feature and circumstances that influence developing countries potential to completely accept and recognize its profit as well as strategic implications can be produced for the researchers and practitioners concerning on the encouragement of the expansion of E-banking in developing nations (Bultum, 2014). However, regardless of the significance of this acceptance, restricted studies are at this time on hand in developing countries, such as Ethiopia. Consequently, additional lessons are still mandatory to understand the importance of E-banking accommodations in the nation to be familiar with

regions in which the nation lacks E-banking acceptance and flow. Therefore, to concentrate on the existing breach in the literature, this research is intended to discover the E-banking adoption condition in Ethiopia and in general focusing on factors that impact acceptance of E-banking scheme.

Worku (2015) studied the factor affecting adoption of e-banking .But the researcher only considered ATM as e-banking since there were no other e-banking products at the time. And also Yosef (2017) conducted a research on factor affecting customer adoption on Internet Banking. But in his study no other e-banking products consider.

In Ethiopia there are some published works in the topic of e- banking like: Causes upsetting acceptance of electronic banking structure in Ethiopian banking industry (Butut, 2014); Factors upsetting for the receipt of E-banking (Aklog, 2018): The situation of commercial bank of Ethiopia, in Gondar city (Laekemariam, 2015): These studies the factors disturbing the receiving of e-banking in CBE.

Hence, more studies and investigation particularly from the customer's perspectives are still essential to better understand what to do to increase e- banking services in Ethiopia. As a result this research is intended to add towards filling up the gap in terms of understanding factors that influence e-banking adoption and how these factors influence users in individual selection of e-banking services in order to provide appropriate and more defined recommendations for successful e-banking adoption strategies.

1.3 Research Questions

1. What is the impact of consciousness on receiving of e-banking at CBE?
2. What is the impact of frequent breakdown of ATMs on customer comfort of e-banking at CBE?
3. What type of system disturbance will create problem on lack of trust of e-banking at CBE?
4. What a demographic factor distress on receiving of e-banking at CBE?
5. What organizational factors disturb on receiving of electronic banking at CBE?

1.4 Objectives of the Study

1.4.1 General Objective

The general target of this examination is to investigate elements that upset acceptance of e-banking in CBE north Addis Ababa District.

1.4.2 Specific Objectives

The specific intentions of this examination are:

1. To investigate lacks of awareness affect adoption of e-banking.
2. To examine influence of frequent ATM break down on the accord of e-banking
3. To examine the relationship of trust with acceptance on e-banking
4. To identify the influence of demographic factors on the taking on of e-banking.
5. To identify the influence of administrative reasons on the receiving of e-banking.

1.5 Importance of the Study

The result of this examination will add value to CBE; the major contribution of this study is to detect the elements that shake acceptance of electronic banking facility in CBE. Knowing the factors will benefit the banks to reconsider and formulate a new as well as better strategy to attract their customers to adopt and retain the use of electronic banking services. Understanding features upsetting the outlook of e-banking facilities, banks drive to perk up their service performance, it will also positively affect the relationship between banks and customers and encourages them to provide better services, and contribute in future developments.

The study will also help to know customer's perception and level of e-banking adoption not only CBE but also other similar banks.

1.6 Scope of the Study

The research was focused to investigate the major factor of acceptance of E-banking in CBE. The study is limited to North Addis Ababa district and selected seven branches of CBE. These branches are selected because of the wide-ranging practice of e-banking facilities or products and also they are physically closer to the researcher and easy access of information. The researcher chooses CBE because it has huge number of client accounts in the country compared to other private banks and selecting North Addis Ababa District due to the resource and time constraints.

There are numerous reasons swaying for taking E- banking. But the researcher try to see the following factors only and other factors are excluded. Those are frequent breakdown of ATMs, lack of trust on the system, absence of consciousness about e-banking demographic and organizational factor are the factors under studied. The study also limited on Mobile banking, internet banking, ATM and POS are considered as electronic banking services. CBE birr is not included because it is currently introduced and difficult to evaluate.

1.7 Limitation of the Study

Whereas accompanying the research, the sample was taken only from CBE north Addis Ababa district; and does not include the remaining districts and private banks that are currently operating in the country. Hence the generalizations may not be applicable to them. The researcher also expects to face that respondents will not properly respond to the whole content of the questionnaire due to misunderstandings, lack of knowledge, or commitment.

1.8 Organization of the Study

The study contains five chapters the first chapter was contained the introduction part which contained the back ground of the research, declaration of the breach, survey question, objective, significance, scope and limitation of the studies.

The second chapter was contained all theoretical perspectives review literature, empirical literature review and conceptual frame work was presented. In the third chapter research design and methodology was presented. Data presentation, analysis and discussion were presented on chapter four. The final portion of the study consists of summary of findings, conclusion, recommendation, and area of further inquiry.

CHAPTER TWO

2. RELATED LITERATURE REVIEW

2.1 Definition and Concept of E-banking

According to Poloucek *et al.* (2013), e-banking can be defined as the transmission of banking services to clients by means of electronic ways.

Electronic banking or Internet banking has been defined in different ways. Daniel defines E-banking as the dissemination of Banks' statistics and facilities by banks to clients through diverse media that can be castoff with diverse terminal devices like individual computer and a cellular mobile with browser software, mobile or digital television. It can also be defined as the transfer of banking facilities through the open-access computer network (the Internet) directly to customer home or private address and services. At a highly developed level, it needs provision of services such as accessing accounts; relocate resources, and purchasing financial products or facilities online (Daniel E., 1999).

E-banking reduces time and energy spent by the customers as they do not have to remain in long lines in front of banks to get their simple jobs done. It is simple as well as suitable to do transactions using e-banking. Due to e-banking, the banks receive pleasure from many reward like wider and deeper accomplish to the clients, more rapidly time to advertise, capability to begin new products and services punctually, larger client trustworthiness etc. E-banking technologies have grown rapidly in most recent years, and the obtain ability of variety of products has directed to in an increase in the acceptance between clients. These technologies comprise direct credit, computer banking, deposited value cards, and debit cards. It permits corporation to create new business links from different global business alliances, test new products and services, and make market research and other enquiries all at a minimal cost both financial and otherwise (Gautam L *et al.*, 2014).

2.2 Operational Definitions of Terms

E-banking: - is the determination of online banking that enables you to have easy and safe access to your bank account. It is also a harmless, fast, easy and well-organized electronic service that enables you access to bank account and carry out online banking services, 24/7.

Automated Teller Machine (ATM):-refers to unattended terminal that has electronic capacity, accepts PIN, discharges money, as well as provide balance approval, fund transfers between accounts and other services.

Mobile banking (MB):-the usage of a mobile phone to admission banking services and executes financial transactions. This includes both transactional and non-transactional facilities, such as inspecting monetary statistics on a bank customer's mobile phone, fund transfer, pin change and supply other bank related information to customers.

Internet banking (IB):-is an electronic fee scheme that helps customers to bearing financial transactions on a secure website operated by a Financial Service Providers, such as CBE.

Point of Sale (POS) Terminal: -shall mean an electronic device used for authorizing and processing bank card transactions at the POS.

Customer: - shall mean a legal person or natural person with whom the bank agrees to conduct business (Gautam L *et al.*, 2014).

2.3 The History of Electronic Banking

According to Malak (2007) Electronic modernization in banking sector can be outlined back to 1970, while the automation of financial association reached momentum, On the other hand; a noticeable attendance of this was open to the clients from the time when 1980, with the first course of ATM. Innovative banking has developed since then, supported by technological developments in the telecommunications and information technology industry. The early decade of the 1990s witnessed the coming out of automated voice response (AVR) technology. By using the AVR Technology, banks possibly will offer telephone banking facilities for financial services. With additional progressions in technology, banks remained able to bargain facilities, through PC possessed and functioned by clients at their suitability, through the usage of intranet propriety software. The clients of these facilities remained quiet largely corporate clients relatively than retail ones (Sohail&Shanmugham, 2003).

2.4 The E-payment Industry in Ethiopia

Ethiopia did not embrace e- banking early as compared to other countries. Certainly the banking industry in Ethiopia is under developed; hence, the introduction of e- banking was delayed. The history of e-banking in the nation can be drawn back with the outline of ATM in the country.

CBE announced ATM service for native customer in 2001 with its 8 ATM located in Addis Ababa. Next to CBE, Dashen bank also introduces ATM to its customer (Gardachew, 2010). There are major stakeholders to provide this service.

The NBE is the major stakeholders in the electronic payment service of the country, which encompasses retail electronic fee structure. The NBE is the supervisory and regulatory body which is authorized to supervise all payment providers (Information Network Security Agency, 2014).

Ethio-Telecom: - is the only supplier of telecommunication infrastructure and facility in the country. The development of electronic payment system comes with the development of telecom infrastructure of the country. The reliability and dependability of telecommunication service is determinant factor for reliability and quality of payment service (INSA, 2014).

Ethiopian Electric Power Corporations (EEPCo):-Power is only of the basic infrastructures that regulate broad based economic growth. The power generating capacity of the country is also growing at an accelerated rate which has facilitated accessibility of financial services including electronic payment service. The angle for power coverage in the nation is likewise very much capable as the country is undergoing through mega power projects which are financed by the CBE. However power interruption is again identified as the key challenges for banks and financial institutions affecting their service quality (INSA, 2014).

Information Network Security Agency (INSA):- is the major stakeholder for the payment industry by virtue of its entrusted powers and duty which also includes acting national policies, laws, standards and strategies that permit to safeguard information and computer based key infrastructures safety, and oversight their enforcement upon approval(INSA,2014).

Financial Institutions: - Electronic Payment in Ethiopia is driven mainly by banks, while micro finance institutions and insurances are also part of the country's financial sector. Until recently almost all banks had focused on a conventional brick and mortar branch based banking (INSA, 2014).

2.5 Electronic Banking Services Delivered in CBE

Automated Teller Machines (ATM):-It is an electronic device which provides the customers with coordinator to financial transactions in a community space starved of the need for a human

assistant or bank cashier. In addition, the potential benefit of ATM are cashiers were relieved of some of the simpler transactions of simply dispensing cash, cheaper to dispense cash through a machine or saves cost and on the side of customers 24-hour availability and potentially faster service. ATM may provide access to customers at time branches are not working. The service of ATM is Cash withdrawal, pin change, make deposits or transfer funds between accounts, foreign exchange, balance inquiry and mini statement (Sara, 2007).

Internet Banking: -Internet banking enables the client to manage his account or complete his work which is related to the bank via internet, whether at home or at office and at any place and any time convenient to him/her. Thus, the client can directly connect to the bank through the internet and conduct different transactions without having to be physically present at the bank. E-banking is a set of technological tools that offers a financial institution for its clients to make banking transactions via the computer using an Internet connection (Sara, 2007).

Mobile Banking: -is the latest service in electronic banking. Mobile banking facilities are offered through a convention of link to these services. Access to the database is completed through a secret code and a customer code. Customers can verify their balance and build modification between accounts. According to Dragos (2014), mobile-banking can be defined also as an account management tool which can be accessed through the cell phone. This up to date service emerge on the market as an option to electronic banking and internet banking services and it makes easy entrance to accounts and banking procedures through the mobile phone. This service can be simply used whether in the home country or overseas. If a client is out of the country and desires to access his/her bank account that can be done via the mobile phone operator.

Point-of-Sale Transfer Terminals (POS): - POS package is an advanced electronic cash shifting system that permits the clients of banks to fee for their buying via their credit card at any POS legitimates tore. Point of Sale (POS) means a retail shop, a checkout counter in a shop, or the location where a transaction occurs. More predominantly, the POS often put forward to the hardware and software cast-off for counters the corresponding of an electronic cash register. POS scheme is applied in stores, restaurants, hostels, stadiums, and casinos, as well as approximately any form of retail organization. The money for the purchase is transmitting right away from account of debit card holder to the store's account (Malak, 2007).

2.6 Benefits of Electronic Banking

According to Poloucek *et al.* (2013), e-banking can be designated as the stipulation of banking products and facilities to clients by means of electronic ways. The benefits of having electronic banking system can be seen from different perspectives as follows.

A. Benefits to Customers

Increased competition is usually transformed into improved quality of services and lower fees for traditional banking services, the client does not need to physically visit the bank, which means, increase of comfort, significantly better availability of banking products and services, saving time and costs compared to physical presence in the bank, fast and also the customers can gain 24/7 access to banking services at his convenience. With the assistance of e-banking, the simple entrance to the banks will be an additional benefit to the customers that cardholders can benefit from the safe and convenient nature of using cards for payment. Furthermore, payment cards can make life easier for people who want to travel abroad as it shrinks the volume of cash one needs to transmit and the related risk of theft. From merchants' point of view, merchants who accept cards have the advantage of increasing their sales as card holders prefer merchants who can accept their card for payment. In addition, by dropping the amount of cash on hand, merchants can administer to decrease risks as well as costs related to cash management (Dawd, 2004).

B. Benefits to Banks

The major benefit for the banks offering electronic banking services is better branding and better awareness to the market or a competitive advantage. In this active world, E-banking assists the banks to catch the attention of a greater number of customers and lead in the competition from other banks. According to Olga (2003), banks that would provide such services would be considered as privileged in technology implementation. Consequently, those banks that supply the service can improve the customer satisfaction through complicated services.

By providing secure e-Banking services, the banks can also evade fake activities. With the assistance of e-banking, banks can save time and hence they can increase the number of transactions and business (Devamohan, 2002). The other advantages of e-banking are possible to quantify in monetary terms. The central goal of every corporation is to make the most of profits

for its owners and banks are not an exemption. In this view, automated e-banking services offer a wonderful chance for exploiting profits (Olga, 2003).

C. Benefits to the Economy

As e-banking provide platform to the banking industry to broaden their customer base, it has an ability to increase the volume of credit creation which in turn results in better economic condition. The positive impacts of electronic banking are massive for economic expansion of a nation. Some of the economic turnover of e-banking as identified by Dawd (2009) is as follow:

1. Decrease of the Cost for Printing Cash Notes and its Related Distribution

In a cash based economy, governments are obligated to invest a great deal of fund on printing of cash notes and distributing to the public. In the case of electronic payment systems the transaction values are transferred from one account to another using electronic means, reducing the need for cash note distribution. Thus, by encouraging acceptance of e-banking product, governments can achieve huge cost saving for their economy in terms of reducing cash note printing and related expenditure (Dawd, 2009).

2. Enhancement of Aggregate Deposit

As people start to increase the volume of their saving as compared to their daily consumption, the saved money can be used for investment purposes that in turn will create employment opportunities. This is a great advantage intended for the economy as a whole. Nevertheless, individual savings could not convey this kind of hurtle. The benefit can only be obtained when savings are made in a banking system whereby the saved fund can be deployed to the economy in the form of loan to encourage the required investment. In an electronic payment card infrastructure people do not condition to way of moving cash notes for their day to day expenditures as well as contingencies. They rather are encouraged to deposit their fund in the banking system and obtain a single plastic to access this fund at any time of the day when the need arises. This implies that unused funds are always in the banking system that helps to facilitate economic growth (Dawd, 2009).

3. Banking the Un-banked

While the electronic payment card infrastructure is expanded, payroll for employees can be taken care of through this system. In addition to creating ease and convenience, for both the employer

and employee, it introduces individuals to the banking system which they may not be interested otherwise (Dawd, 2009). Such influence of banking the non-bank user population also has a benefit in increasing aggregate deposits as indicated above.

4. Increasing the Capacity for Hard Currency Generation

In developing economies, earning of hard currency is very important to manage a country's balance of payment. The payment card system can bring a good potential of enabling economies to earn more foreign currency. This can be realized by attracting tourists and by encouraging them to spend more. In today's world, availability of payment card infrastructure is the criteria that tourists set while they decide which country to visit. As a result, countries that keep a developed electronic payment card system have a better potential of being visited by tourists than those which do not establish the infrastructure. Therefore, extra tourists and improved hard currency as a result of diversifying payment card business. Furthermore, due to the fact that travelers can access their account at home easily while staying in another country, where the payment card infrastructure is established, their chance of spending more is higher. Travelers, being outside of their home country, feel more unsafe and uncomfortable to carry bulk amount of cash while on travel. Thus, they can be forced to spend only to the extent of the limited cash on hand during a certain period of stay in another country (Dawd, 2009).

2.7 Challenges of Adopting E-banking in Ethiopia

According to Gardachew (2010), Ethiopian banking business faces several challenges to accept E-banking scheme and capture the opportunities presented by ICT applications in general. The Main Challenges for E-banking requests are:

Low level of internet distribution and inadequately developed telecommunication infrastructure:
-Lack of infrastructure for telecommunications, Internet and online payments hold up smooth development and upgrading in e-commerce in Ethiopia. Utmost country side regions of the nation, where the main stream of small and intermediate businesses intense, have no Internet accesses and thus are incompetent to involve in e-commerce actions.

Lack of proper legal and authoritarian structure for e-commerce and e-payment:-Ethiopian present laws do not provide accommodation electronic contracts and signatures. Ethiopia has not yet sanctioned regulation that compacts with e-commerce worry containing enforceability of the

legality of electronic agreements, digital signatures and intellectual copyright and limits the utilization of encryption technologies.

Political instabilities in adjacent countries: - Political and economic insecurity in Somalia, Southern Sudan, and Eritrea are frightening traits that don't offer a very favorable atmosphere for e-banking in Ethiopia. Political instabilities certainly disturb smooth operations of business and free run of goods and services

High Proportions of illiteracy: -Illiterateness proportion is a severe obstruction for the receiving of E-Banking in Ethiopia blocks the simplicity of banking facilities. On behalf of people to completely enjoy the advantages of E-Banking, they ought to not merely identifying what way to recite and transcribe but furthermore own basic ICT literacy.

High cost of internet: - The price of Internet entree relative to per capita income is a critical factor. In contrast to the developed countries, there are privileged costs of entry into the e-commerce market in Ethiopia. These comprise high initial investment costs, high costs of computers and telecommunication and authorizing requirements.

Absence of financial institutions systems that links a number of institutions (Banks are not still automated):-Utmost of the banking dealings presently captivating usage provided by Visa and MasterCard. For conducting e-banking, the exercise of credit or debit cards is obligatory thus require the need for dedicated schemes not currently available.

Frequent power interruption: - Lack of reliable power supply is a key challenge for smoothly running E-banking in Ethiopia.

Security: -One of the major challenges and the basic necessities of e-banking are ensuring its security. Securing the practice in e-banking includes authenticating data of the customer and banker and defending the information to be diffused from interception. This verification can be completed by using user ID and passwords. In addition, way that prevents repudiation both by the merchant and customer once the payment process has taken place must be provided (Barnes and Hunt, 2001).

According to Worku (2010), e-banking scheme have to take into account the exact of many-sided security keys i.e. security needs of all share parties in the e-banking system. An e-payment

scheme that is not safe may not get belief from its users. Trust is the vital features to guarantee the receiving of e-banking system by users.

Martina (2005) also indicated that e-banking requests represent a safety challenge as they highly be influenced by ICT systems that create susceptibilities in financial institutions, companies and possibly harm clients. It is imperative for banks to understand and address security concerns in order to leverage the potential of ICTs in delivering e-banking applications.

2.8 Adoption of E-banking

Adoption is the approval and persistent use of a product, service or idea, clients go through a procedure of facts, point of view, decision, operation and confirmation in advance they are ready to accept a product or facility. A potential adopter passes through convinced stages before decision is made on whether to adopt or refuse an innovation. Rogers has been one of the number of researchers who has focused upon the adoption process, which he defines as the method decided in separate or additional decision-maker unit permits from first information of an invention, to forming an approach toward the innovation to a decision or refusal to application of the innovative idea, and to validation of this decision (Rogers and Shoemaker, 1971).

The innovation adoption process defined by Rogers is the procedure decided in separate or extra decision formation unit permits from understanding of an invention, to forming thoughts concerning the invention. There are five phases in invention decision process.

1. Knowledge: Socio-economic features, Individuality variables and communiqué behavior all recite to innovativeness. Innovativeness is the level to which a particular or other acceptance unit is quite untimely in accepting novel ideas contrast to new participants of a scheme (Rogers, 1995). According to Rogers primary adopters have extra proper education than forthcoming adopters and are more to be expected to keep going (socio-economic characteristics).

2. Persuasion: The possible adopter's mind-set in the way of the invention is formed in this phase. By anticipate and predicting future use pleasure and threat of adoption, the potential adopter builds up positive or negative feelings to the innovation, which take part in significant role of adjusting the last decision. Perceived attitudes of an innovation as its relative benefit, compatibility and complication are particularly important here (Rogers, 1995).

3. *Decision*: The decision stage occurs when an individual connect in activities that guide to acceptance or dismissal of the innovation. In this stage the adopter begin to vigorously look for out information about the innovation that assists the decision creation.

4. *Implementation stage*: In this stage, mind information dispensation and decision making come to an end, but the behavioral change commence.

5. *Confirmation stage*: After the adoption of innovations, the adopter keeps assessing the results of his / her decision. If the intensity of satisfaction is essential enough, the use of innovation will persist; however, it is also promising that the refusal happen after adoption. In the latter case, the overturn of previous decision is called “discontinuance”. The time frames for adopting an innovation can be condensed or fairly lengthy. For example, responsiveness of an invention may precede the decision to accept by months or years. So we can briefly define adoption: Adoption is the acceptance and continued use of a product, service or idea. According to Rogers and Shoemaker (1971), customers drive through a procedure of knowledge, influence; verdict and verification before they are situate to take on a product or facility.

2.9 Empirical Review of the Study

Previous there were several studies were conducted to acceptance of e-banking in many parts of the globe. Though, the concern in this research is to assess those previous works related to acceptance of e-banking in Ethiopia.

Accordingly, are view dedicated by Annin *et al.* (2013), in Ghana to assess the usage practice of e-banking between bank customers’ point out that ATM is the most governing e-banking service followed by mobile banking while internet banking verified the final support by bank customers.

A study accompanied by Auta (2010), in Nigeria to be familiar with issues upsetting e-banking acceptance among bank customers found that the concern of safety, accessibility problem, lack of enough knowledge about the service and lack of infrastructures such as power and telecommunication amenities are amongst the major factors that affect consumers adoption of e-banking. Similarly, Anwana (2010), on his study also recognized that the major inhibiting factors of e-banking adoption are inadequate security, lack of knowledge of use of the technology, inadequate and declining telecommunication facilities and infrastructure, inadequate public power supply, lack of trust, poor economic condition of the people, and lack of confidence on the

technology by the people. With esteem to safety and understanding of the technology, this study infers that e-banking services and products are not trustworthy and secured, and so, is not trusted. Consumers' do not know how to use some of the e-banking products/services, their banks do not offer training or education on its practice and so, they choose face-to-face banking to e-banking, because, they think it is difficult.

Alhinaiet *al.* (2013) develops a research model which integrates two types of factor which are linked to the individual characteristics of the clients (customer-related factors) and those that relate to customers' insights of various features of the e-banking systems (system related factors). Based on this finding system-related set of factors (Perceived benefit, ease of use, perceived risk and internal capability or confidentiality) are the most determinant factors for e-banking adoption.

Paul (2013), examination displays that the young age group is more prone with computer and internet banking. So they are more attracted in using the e-banking system predominantly in ATM & online transaction rather than old & traditional banking. Once more find that an excessive number of clients especially the old generation having no computer knowledge are until now desire the traditional banking but along with some moderate changes and quick service delivery.

Kartini and Rina (2016) in the opening of technology launch external factors dominate the acceptance of technology together with IT infrastructure, perceived profit and risk and mass media advertising but at later stage interpersonal pressure and aggressive banks awareness creation and personal recommendation influences the adoption speed.

Ayana (2012) discovered in his study on Acceptance of Electronic banking scheme in Ethiopian Banking business: Barriers and Drivers that E-banking system, like ATM, mobile banking, e-banking and others remained not fine accepted by Ethiopian banking business. This is because of inadequate ICT arrangement and absence of lawful outline at NBE, which can inspire banking manufacturing to realize the system. In addition to the overhead two basic factors touching receiving of E banking in Ethiopia, result of the study also displays that security threat and lack of trust on the usage of technological adoption are other major barrier for the system. The level of security risk linked with E-banking product or service, like ATM, internet banking, mobile banking and others, pose different face up to different banks. Improvements are necessary to

make certain for consumer confidence. Lack of rivalry among indigenous and foreign banks is also extra challenge for the receiving of E-banking in the country. Technical and managerial services obtainable in Ethiopian banks for the receiving of E-banking are also restricted.

Bultum (2014), also quotes on the influences upsetting e-banking acceptance in Ethiopia are perceived advantage and threat, legal and regulatory frameworks, government support, IT infrastructure and technical and managerial skills of the bank. The result obtained from the study states that lack of such authorized framework may thus block the introduction of cost effective modern electronic payment instrument such as ATMs, credit and debit cards, mobile/telephone/internet banking.

Laekemariam (2015), studied the features disturbing the receiving of mobile banking in CBE. The common aim of the examination is to identify factors that persuade the acceptance and practice of mobile banking. The finding of this examination exposed that performance expectation, perceived risk, perceived cost, effort expectancy and trust, were the factors affecting users having intention to adopt mobile banking. Age and occupation is important factor for reception of mobile banking but educational criterion was not a major factor for receiving of mobile banking in Ethiopian mobile banking user context.

Yitabarek and Zeleke (2013) conducted research to analyze factors that influence clients 'intent to accept e-banking facility networks in Bahir-Dar city. The study used variables from Theory of Criticized Behavior and Technology Approval Model. The results exposed that attitude; subjective standard, perceived behavioral control, observed realism and perceived simplicity of custom and perceived risk were major in affecting consumers aim to use e-banking service channels.

A study conducted by Abenet (2010), concerning the determinants of e-banking adoption in Ethiopia revealed that the young age group is more computer literate and finds it easy to accept and use new technologies.

Takele Y. and Sira Z. (2013), had analyzed factors that influence customer's intent to the receiving of E-banking facility canals in Bahirdar City by integrating TAM, TPB and PR. The authors finding shows that the seven factors included in the models (attitude, subjective norm, perceived behavioral control, seeming helpfulness, seeming simplicity of custom and perceived risk were significant in affecting users intention of use e-payment.

2.10 Conceptual Framework

In order to achieve the research objective the theoretical structure will be clarified by the dependent and independent variable of elements upsetting the acceptance of e-banking.

1. Interruption of E-banking Equipment

A study conducted about customer satisfaction and taking on electronic banking facility on some selected banks of Ethiopia listed that currently there are some elements which disturb customer satisfaction and acceptance of electronic banking facility in selected banks (commercial banks of Ethiopia, Wegagen bank, and Zemen bank) of Ethiopia (Bambore PL,2013). Those are tools out of instruction, machine out of cash, no printing declarations, cards get blocked, frequent failure of ATM service, untrustworthiness of ATM service, lack of enough specialists in all bank who resolve collapse of ATM machine, lack of sufficient alternative scheme which substitute ATM service for the customer when temporary predicament happen in the machine, lack of expediency of E-bank service, lack of consistent Tele-banking, under-development of technological infrastructure, disruption of network, lack of suitable and regulatory frame work for e-commerce, resistance to changes in technology among customers and service providers as result of fear of risk, lack of fair distribution of E-banking are determinant causes for customers hesitant to adopt of e-banking system.

2. Lack of Trust on the System

Trust is defined as the readiness of a revelry to be open to the activities of another party, centered on the anticipation that the trustee will achieve a specific achievement significant to the trust or, without being able to control and monitor the other party (Mayer *et al.*, 1995). For banks to succeed in the long run, their ability to convince the customers to do Internet Banking is crucial. As a result, customer belief is vital to Internet Banking (Jham, 2016). The detached nature of the online situation, the wide spread usage of technology, and the intrinsic ambiguity of consuming an open infrastructure for transactions are unique dimensions of customer's belief in Internet Banking (Yousafzai *et al.*, 2009).

Although Internet banking is considered to be a particular type of e-service, the primary receiving of Internet banking relies on the roles of both the Internet technology and e-vendor in offering the service.

Suppliers are unavoidably separate and are not completely predictable, so customers naturally need to realize online activities. Customers cannot conduct business with providers in an environment with a high level of uncertainty. Trust is the most important factors that can reduce the uncertainty (Grazioli and Jarvenpaa, 2000). Distrust and risk are natural factors and they are sometimes invisible in guarantees and agreements (Grabner-Kräuter and Faillant, 2008). In the online environment, users in all parts of the world are allowed to access vital information on computer systems and information transferred online. The online financial transaction is, therefore, naturally dangerous from the perspective of security.

Various studies have identified different factors of trust that could influence Internet users' trust in online transactions. According to (Koufaris and Hampton-Sosa, 2004), the tendency of customers to make a risky decision in online activities (for example disclosing credit card information) depends on their assessment of the sellers' security and their examination of the trust of the electronic commerce system.

In regard to online financial transactions, some customers show a higher stance to trusting everything and everyone. These groups of customers have a tendency to trust a Web vendor despite having only limited information about it, whereas other groups of customers need more information to create trust (Teo and Liu, 2007).

3. Lack of Awareness about E-banking

Customers' level of consciousness of e- banking impacts their approach to acceptance of e-banking. The works on e-banking furthermore supports those individual elements like information (Sathye, 1999; Polatoglu and Ekin, 2001) has an effect on client's taking on e-banking. Sathye (1999) stressed that many clients were simply unconscious of e-banking and its sole welfares. At this time awareness signifies to the clients 'realization of automated banking and the welfares linked with it, and their consciousness of how to achieve banking transaction via e-banking. Sathye (1999) practical that the lack of responsiveness concerning electronic banking and its payment donate to the unacceptance of electronic banking. Additionally, Polatoglu and Ekin (2001) designated that the additional acquaintance and expertise a client obsessed nearby electronic banking, the soother it was for the client to make use of electronic banking. It is essential that the banks posing e-banking facilities should make the customers alert about the obtain ability of various services and their benefits and educate them about security &

privacy and risk involved in e-banking transaction. Later, for acceptance of electronic banking, it is essential that the banks posing this facility sort the clients awake about the accessibility of such a product and clarify in what way it improves value comparative to other products of its particular or that of the competitors. For instance, marketing efforts, Radio and TV advertisements, Website, branches and other promotional tools suggests that marketing communications will take an affirmative outcome on client receiving of online banking.

4. Demographics Factor

Demographic factors have also been establish to be linked with acceptance of different banking channels, particularly internet banking. For illustration, people with high educational success may have ability for computers and acquire good information dealing out skills (Al-Ashban and Burney, 2001). These behaviors are crucial in the circumstance of e-banking and consequently a connection between proper education and adoption is propagated. The results reported in Dover (1988) point out that woman were also less to be expected to conduct their banking activities online. Akinci*etal.* (2004) results in Turkey demonstrate that mid-aged consumers are further probable than younger or adult consumers to usage internet banking. Those who feel right to superior medium class and have high-level occupations are more likely to custom Internet banking (Karjaluoto *et al.*, 2004).

5. Organizational 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. In this examination, the investigator uses one basic organizational factor that is Financial and human resources. Financial resources are an important factor in facilitating innovation adoption for any organization and they are often associated with the firm size (Kuan 2001 &Iacovou, 1995). Thus, it is expected that the availability of financial resources within the adopting firms is important for E-banking practice. These resources allow banking organizations to acquire human associated capital scouting the essential abilities and skill to advance and care provision of E-banking services.

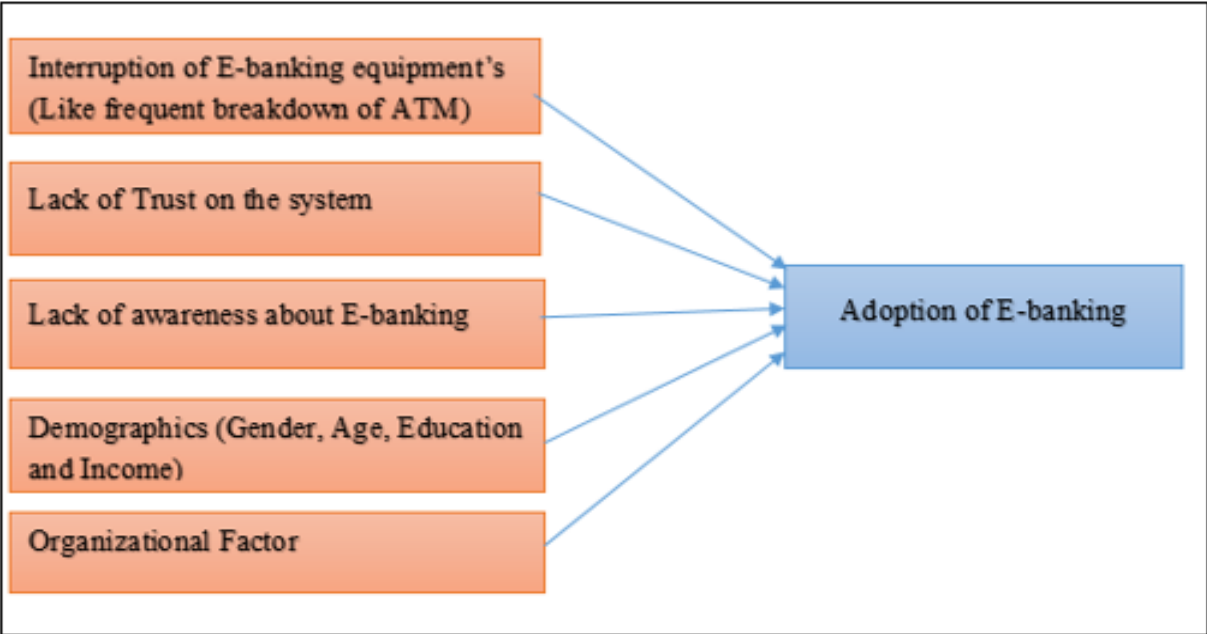


Figure 2.1: Conceptual framework of the study
Source: - Modified by Author

CHAPTER THREE

3. RESEARCH METHODOLOGY

These chapters were presents the research methods used to complete this research work. It presents examination design; data gathering techniques, questionnaire design and a data analysis method was used are included in the chapter.

3.1 Description of the Study Area

The banking division in Ethiopia is controlled by NBE acting as the chief bank of the country. There are 18 commercial banks registered under the NBE up to 2019, these comprises 2 state owned banks and 16 private commercial banks (<https://nbebank.com>). The researcher selected CBE for this study. This bank was chosen because of great amount of client and relatively other private bank it gives better provision of various e-banking facilities. Based on geographical location CBE classified in to four districts in Addis Ababa namely North, South, West and East districts. The researcher focuses on North district.

3.2 Research Design

Research design contains about the type of data, method of data collection, source of data and sampling strategy (Saunders, Lewis, & Thornhill 2012). In this study the investigator used descriptive and explanatory proposals. The descriptive is used to describe elements winning the receiving of e-banking in CBE. The explanatory design used to explain the relationship among the variables of the study. The researcher tried to explain the relationship between autonomous and central variable by using multiple regression analysis.

3.3 Research Approach

For the reason of this research, the researcher used quantitative approach to respond the research questions by collecting quantitative data from e-banking service users. Quantitative approach was chosen as the association among the dependent and independent variables were measured quantitatively.

3.4 Sampling Technique and Procedure

3.4.1 Target Population

According to Hair *et al.*(2010), target population is said to be a particular group of people or object for which questions can be asked or observed made to develop required data and information. According to Mugenda (2008), part clients are the total customers that the researcher identifies in his or her investigation. In order to undertake this research, the investigator was selected seven branches of CBE north district. The selection is basically centered on the e banking performance of the branches as of December 2019. Therefore customers of these branches who are using e- banking service are considered as target population of the study. As of December 2019 report the total numbers of e banking users of these seven branches are 215,101 (North district e-payment report).

3.4.2 Sampling Technique

Sampling is the statistical method of choosing a division called a sample of a population of concern for determinations of making observations and statistical inferences about that population (Bhattacharjee, 2012).

This study engaged non-probability sampling; because the sampling unit is unavailable and difficult to reach randomly selected samples in person based on the list of customers. Employing convenient sampling technique were better when large population to reduce cost, time and easy to handle (Saunders, Lewis & Thornhill, 2009).

Based on geographical location CBE classified in to four districts in Addis Ababa namely North, South, West and East districts. From each district the researcher selects north district randomly. Then from North district seven branches were selected purposefully based on large number of ATM installation on the branch's and e- banking performance. The e-banking performance evaluation mainly include number of e- banking users, number of e-banking transaction and volume of transactions made by any e- banking service as of December 2019. Next the researcher was selected respondents from the branches and Convenience sampling method was used for data collection.

3.4.3 Sample Size

Sample size is actually the whole quantity of units which are to be selected for the analysis in the research study and the representation for the study calculated according to the formula suggested by Yamane's (1967) with 95% confidence and 5% acceptable sampling error. Among 215,101 populations; the sample scope is calculated using the following formula.

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

Where: n= sample size

N = population number

e= margin of error

Using the above formula, the sample size was calculated at 95% confidence interval and e will be 0.05, and the population number N is 215,101.

$$n = \frac{215,101}{1 + 215,101(0.05^2)} = 399.26$$

Based on the above formula, the researcher gathered data through questionnaire from approximately 400 respondents.

To increase the representation of samples approximately equal numbers of respondents were selected from all seven CBE branches purposively, in order to escape lower responsiveness the questioners are collected through the direct help of the researcher in person. In addition to increase the representation of samples the data was collected in different times and this method helped the researcher to get greatly representative information in an expertise way.

Table 3.1: Population and Sample size

No	Name of the Branches	No of e-banking users	Sample size
1	AddisuGebeya	18,130	57
2	AradaGhiorgis	35,407	57
3	Arat Kilo	47,249	58
4	Gullele	25,770	57
5	Kidiste Mariam	22,794	57
6	Selassie	36,323	57
7	SidistKillo Campus	29,428	57
	Total	215,101	400

Source: Banks reports as of December 2019

3.5 Types of Data and Technique of Data Gathering

3.5.1 Sources of Data and Data Type

In order to achieve the objective of the research, the investigation approach was used is quantitative approach. The reason for choosing quantitative research approach is to meet the purpose. With regard to the sources of data, the study was used both primary and secondary foundation of data. Based on the nature, range, aims and availability of time and resource, the researchers were used questionnaires and secondary data source like books, documents, research papers, journals and publication, CBE website, CBE annual reports and other relevant journal.

3.5.2 Technique of Data Gathering

For the proper achievement of the objectives of the study; among different primary data collection methods, questionnaire was used as an instrument of data collection. The respondents who are users of electronic banking customer of selected branch from north Addis Ababa district would be asked for cooperation. A structured questionnaire was developing containing closed ended for the respondents can easily understood and responded easily. The variable is measured using Likert scale with five response categories ordinarily. “The Likert scale method is preferred to make questions interesting to respondents and thereby enhance their cooperation (Scott and Gerald, 2010).

3.6 Data Analysis Method

The data gathered from respondents during a questionnaire is analyzed through descriptive and inferential statistics. The descriptive statistical analysis describes respondent's background as well as factors that affect customer's adoption of e-banking. Regression and correlation examination are used in order to statistically analyze the relationship of factors that described as autonomous and dependent variables. To do such kinds of analysis the researcher used software called Statistical Package for Social Science (SPSS) version 22.

3.7 Validity and Consistency

Reasonableness decides whether the measuring instrument truly measures what it will be anticipated to quantify or in what way honest the research consequences are. To assure validity, questionnaires will be designed on the groundwork of previous studies questionnaires and review of related literatures.

Reliability is measures of internal consistency that concerned with items responses consistent across constructs and indicates scores are stable over time when the instrument is administered (Creswell, 2009). On the road to measure the reliability of the instrument the researcher used a 0.70 Cronbach's coefficient alpha to measure the consistency of the instrument. And the nearer Cronbach's alpha figure is to 1.0 the greater the interior reliability of the items in the measure.

Table 3.2: Reliability Statistics

Cronbach's Alpha	Number of Items
.736	29

(Source:-Own survey result, 2021)

In order to test the interior reliability of variables in this research instrument Cronbach's alpha coefficient was determined. The variables constructed for this study has been tested by using Cronbach's alpha coefficient through SPSS V.22 was found to be 0.736. This indicates that acceptability of the data for further analysis.

CHAPTER FOUR

4. DATA PRESENTATION, ANALYSES AND DISCUSSION OF RESULTS

4.1 Introduction

The chapter consists of outcomes and analysis of the research study centered on explanation of the data collected. The investigator distributed inquiry form to seven deliberately experimented CBE branches; 400 questionnaires were spread to respondents and 378 (94.5%) of them properly complete and give back. In this chapter, both expressive and inferences on the data examination and techniques are offered. It started with a description of the demographic and general characteristics of the participating respondents. Furthermore, descriptive statistics was inserted to analyze Likert Scale items and variables of e-banking adoption decision. To test hypothesis and achieve the study objectives, different inferential statistics had been employed. Multiple regression analyses was employed to test hypothesis and achieve the study objective that focuses on examining the most important factors that affect e-banking adoption.

4.1.1 Respondents Demographic Profile

The cohorts for this study have different private information; in addition these differences they announce different reply in relation to E-banking usage, and the causes that impact E-banking adoption. The succeeding discussion confirms these variances. The demographic profile of respondents, joined in this study was displayed in table 4.1 as follow

Table 4.1: Respondents demographic profile

Variables	Arrangement of Variables	Occurrence	Percentage
Gender	Male	273	72.2
	Female	105	27.8
Age	20-30 years	138	36.5
	31-40 years	118	31.2
	41-50 years	63	16.7
	51-60 years	38	10.1
	Above 60 years	21	5.6
Educational Level	Primary School	64	16.9
	Secondary School	50	13.2
	Diploma Holder	99	26.2
	First Degree Holder	149	39.4
	MA Degree	12	3.2
Main Occupation	PhD or Above	4	1.1
	Government Employee	148	39.2
	Private Employee	77	20.4
	Private Business	76	20.1
	Student	48	12.7
Monthly Income	Other	29	7.7
	Less than birr 2000	69	18.3
	Birr 2001-3000	33	8.7
	Birr 3000-4000	38	10.1
	Birr 4000-5000	94	24.9
Above birr 5000	144	38.1	

(Source: survey result, 2021)

As it is displayed on table 4.1, 72.2% of respondents were males who represent the maximum portion of participants in this study. More than 60% of the respondents age were 40 and below 40 years old. Nearly 70% of the respondents were at tertiary level of Education. Concerning respondent's main occupation, the respondents' analysis shows 39.2% were government employee, 20.4% private employee, 20.1% private business, 12.7% student and 7.7% other. This implies that most of e-banking customers were employees, 63% of the respondent has monthly revenue above 4,000 Ethiopian birr.

4.2. Descriptive Analysis

4.2.1. Descriptive Analysis of the Customer Adoption Level on E-banking

To evaluate several influences that disturb the client level of adoption of e-banking mean and standard deviation of the participants have been figured. The outcome of the analysis is revealed in table 4.2 below.

Table 4.2: Descriptive Statistical Analyses for Likert Scale Items

Variables	N	Mean	Std. Dev.
The bank advertises and teaches the clients to custom e- banking through mass media	378	3.63	1.107
I got informed about the service of e-banking outside the bank	378	3.64	1.252
I have informed about the allowed transaction limit using e-banking channels	378	3.40	1.202
I have informed about the risks may face when using e-banking service	378	3.93	1.029
I have informed about the service fees and charges when using e-banking service	378	3.63	1.107
Overall Average of Awareness	378	3.65	1.139
No other systems which substitute ATM facilities for customers when temporary problem happen in the machine.	378	3.81	1.098
Absence of sufficient technicians in all banks who solve breakdown of ATM machine	378	3.38	1.153
My bank has acceptable ICT infrastructure to conduct e-banking	378	3.40	1.202
When about an ATM breakdown my bank handles the problem faster.	378	3.92	1.032
ATM usage in my bank branch has led to timely and effective withdrawal of cash	378	3.38	1.153
Slow internet connection reduces the acceptance rate of E- banking services.	378	4.34	0.789
Because of connection problem sometimes there is a difficulty to confirm transaction takes place or not.	378	2.05	1.069
Overall Average of Interruption	378	3.47	1.071
Customers have great degree of belief on the bank and are satisfied with safety of electronic banking facility delivered by the Bank.	378	3.76	1.252
I trust in the safety of online money transfer.	378	3.92	1.032
I am bothered to custom Electronic banking facility because other people might be capable to access my account	378	4.34	0.789
I am not believed that trustworthy information is transported securely from banks to clients	378	1.89	0.922
Overall Average of Trust	378	3.48	0.999

Male clients of the bank more exercise the E- banking services than female customers.	378	2.40	1.134
A high amounts of illiteracy upset the informal practice of E-banking.	378	2.23	1.241
Young clients of the bank consume e- banking facilities than old clients.	378	2.03	1.061
Clients level of literacy weight the taking on e- banking	378	4.26	0.851
Customers those have more income use e-banking service than customers who have low income	378	2.01	1.049
Overall Average of Demographic Factors	378	2.59	1.067
Applying technological innovation needs large investment budget.	378	1.99	0.898
Banks need experienced human resource in order to appliance e- banking.	378	4.21	0.894
Banks need experienced IT staffs' in performing technological innovation.	378	1.89	0.774
Technical and managerial abilities of personnel on using technological innovation have impact on adoption e-banking	378	2.24	1.252
Inaccessibility of experienced and capable employee in related with e-banking is the trial for banks to exercise e-banking	378	1.93	0.894
Overall Average of Organizational Factors	378	2.45	0.942
There is a great possibility of using e-banking in my near future.	378	1.95	0.933
Consuming the electronic banking scheme enables me to accomplish banking activities more quickly.	378	2.01	0.832
I will strongly recommend others to use the electronic banking scheme	378	1.94	0.791
Overall Average of Adoption	378	1.97	0.852
Grand Average	378	3.02	1.027

(Source: Own survey result, 2021)

Scale: < 1.80 Strongly Agree, Between 1.81 and 2.60 Agree, Between 2.61 to 3.40 Neutral, Between 3.41 to 4.20 Disagree and > 4.21 Strongly Disagree

As illustrated on the above Table 4.2 the mean score and standard deviation of respondents for each item ranges between the lowest $X = 3.40$ with $SD = 1.202$ and the highest $X = 3.93$ with $SD = 1.029$. The average mean score for awareness was $X = 3.65$ with $SD = 1.139$ which implies higher average than the grand mean ($X = 3.02$ with $SD = 1.027$). This indicates the customers feelings were disagree about level of awareness on electronic banking service.

As depicted on the above Table 4.2 the mean score and standard deviation of respondents for each item ranges between the lowest $X = 2.05$ with $SD = 1.069$ and the highest $X = 4.34$ with $SD = 0.789$. The average mean score for interruption was $X = 3.47$ with $SD = 1.071$ which implies higher average than the grand mean ($X = 3.02$ with $SD = 1.027$). This indicates the customer feeling was disagreeing about electronic banking service interruption.

As shown above on Table 4.2 the mean score and standard deviation of respondents for each item ranges between the lowest $X = 1.89$ with $SD = 0.922$ and the highest $X = 4.34$ with $SD = 0.789$. The average mean score for trust was $X = 3.48$ with $SD = 0.999$ which implies higher

average than the grand mean ($X = 3.02$ with $SD = 1.027$). This indicates the customers feelings were disagree about electronic banking service (not fully trust the system).

As presented on above Table 4.2 the mean score and standard deviation of respondents for each item ranges between the lowest $X = 2.01$ with $SD = 1.049$ and the highest $X = 4.26$ with $SD = 0.851$. The average mean score for demographic was $X = 2.59$ with $SD = 1.067$ which implies lower average than the grand mean ($X = 3.02$ with $SD = 1.027$). This indicates the customers feelings were agree about demographic factors affect electronic banking service.

As portrayed on above Table 4.2 the mean score and standard deviation of respondents for each item ranges between the lowest $X = 1.89$ with $SD = 0.774$ and the highest $X = 4.21$ with $SD = 0.894$. The average mean score for organization was $X = 2.45$ with $SD = 0.942$ which implies lower average than the grand mean ($X = 3.02$ with $SD = 1.027$). This indicates the customers feelings were agree about organizational factors affect electronic banking service.

As depicted on above Table 4.2 the mean score and standard deviation of respondents for each item ranges between the lowest $X = 1.94$ with $SD = 0.791$ and the highest $X = 2.01$ with $SD = 0.832$. The average mean score for adoption of e-banking was $X = 1.97$ with $SD = 0.852$ which implies lower average than the grand mean ($X = 3.02$ with $SD = 1.027$). This indicates the customers feelings were agree to adopt electronic banking service.

4.3. Inferential Statistics /Analysis/ of the Customer Adoption Level on E-banking

Before applying regression analysis, some tests were directed in order to ensure the appropriateness of data to assumptions regression analysis as follows:

4.3.1. Multicollinearity Test

Later the regularity of the statistics in the regression pattern are encountered, the subsequent step to define whether there is association among the independent variables in a pattern it is essential to multicollinearity test. Relationships among the independent variables drive consequence in a very solid correlation. In addition, multicollinearity examination done to evade practices in the decision making procedure concerning the fractional effect of independent variables on the dependent variable. Proper regression model must not occur association regarding the independent variables or not happen multicollinearity.

Examination multicollinearity as a foundation the VIF value of multicollinearity check results:

1. *If the VIF values lies 1-10, then there is no multicollinearity.*
2. *If the VIF < 1 or >10, then there is multicollinearity.*

As we can see in the table 4.6 below the VIF results in between 1.479 to 4.667 both in the upper and the lower boundary the model fulfill the rule or there is no multicollinearity problem.

4.3.2. Correlation Analysis

A correlation is a degree of how powerfully two variables link to each other. Correlation coefficients are frequently used to describe data because they are relatively easy to use and provide a great deal of information in just a single value (Mooi&Sarstedt, 2011).

The calculated significance of the correlation figure arrays from -1 to 1, where -1 indicates a perfect negative relation the relationship is perfectly linear) and 1 indicates a perfectly positive relationship. A correlation figure of 0 specifies that no association (Mooi&Sarstedt, 2011).

Table 4.3: Pearson Correlation

		Awareness ⁷					
Awareness ⁷	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	378					
Interruption	Pearson Correlation	.789**	1				
	Sig. (2-tailed)	.000					
	N	378	378				
Trust	Pearson Correlation	.755**	.734**	1			
	Sig. (2-tailed)	.000	.000				
	N	378	378	378			
Demographic	Pearson Correlation	-.735**	-.503**	-.629**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	378	378	378	378		
Organization	Pearson Correlation	.044	.075	.297**	.162**	1	
	Sig. (2-tailed)	.399	.144	.000	.002		
	N	378	378	378	378	378	
Adoption	Pearson Correlation	.728**	.522**	.616**	-.497**	.108*	1
	Sig. (2-tailed)	.000	.000	.000	.000	.036	
	N	378	378	378	378	378	378

** . Correlation is considerable at the 0.01 level (2-tailed).

*. Correlation is considerable at the 0.05 level (2-tailed).

(Source: Own survey result, 2021)

4.3.2.1 Awareness and Receiving of E-banking

The association between the concerning two variables has moderate relationship at $r=.728^{**}$. The above Pearson correlation shows that awareness has significant impact on receiving of e-banking. This implies ease of use has positive correlation with acceptance of e-banking.

4.3.2.2 Interruption and Receiving of E-banking

As presented in Table 4.3 there is a considerable relationship between Interruption and acceptance of e- banking. The result of $r=.522^{**}$ shows that the two variables correlated positively.

4.3.2.3 Trust and Adoption of E-banking

According to Table 4.3 the correlation result of the independent and dependent variable is $r=.616^{**}$ which implies that there is moderate relationship between trust and embracing of e-banking.

4.3.2.4 Demographic Factor and Adoption of E-banking

As shown in Table 4.3 there is a considerable relationship between demography and acceptance of e- banking. Further because $r=-.497^{**}$ they are correlated negatively. This implies the dual variables influence each other negatively.

4.3.2.5 Organizational Factor and Receiving of E-banking

The correlation result for organizational factor as independent variable and acceptance of e-banking as dependent variable is $.108^*$, this implies the two variables are also positively related.

4.3.3 Regression Analysis

Regression examination is a scientific measure of the normal association among two or more variables in relations of the unique units of the data. Regression obviously designates the reason and consequence association among the variables. In regression, the variable conforming to cause is taken as independent variable and the variable matching to consequence is taken as dependent variable.

1. Checking for Linearity

The regression pattern can be articulated in a linear way. Testing the linearity during y and x variables can be completed by scheming the independent variables in contradiction of the dependent variable (Mooi & Sarstedt, 2011). As figure 4.1 below shows the relationship of

independent variables with the dependent variables are linear. The purpose of normality test is whether the regression model of the underlying factors of e-banking adoption has a normal distributed or not violated multicollinearity assumption to conduct multiple linear regression analysis.

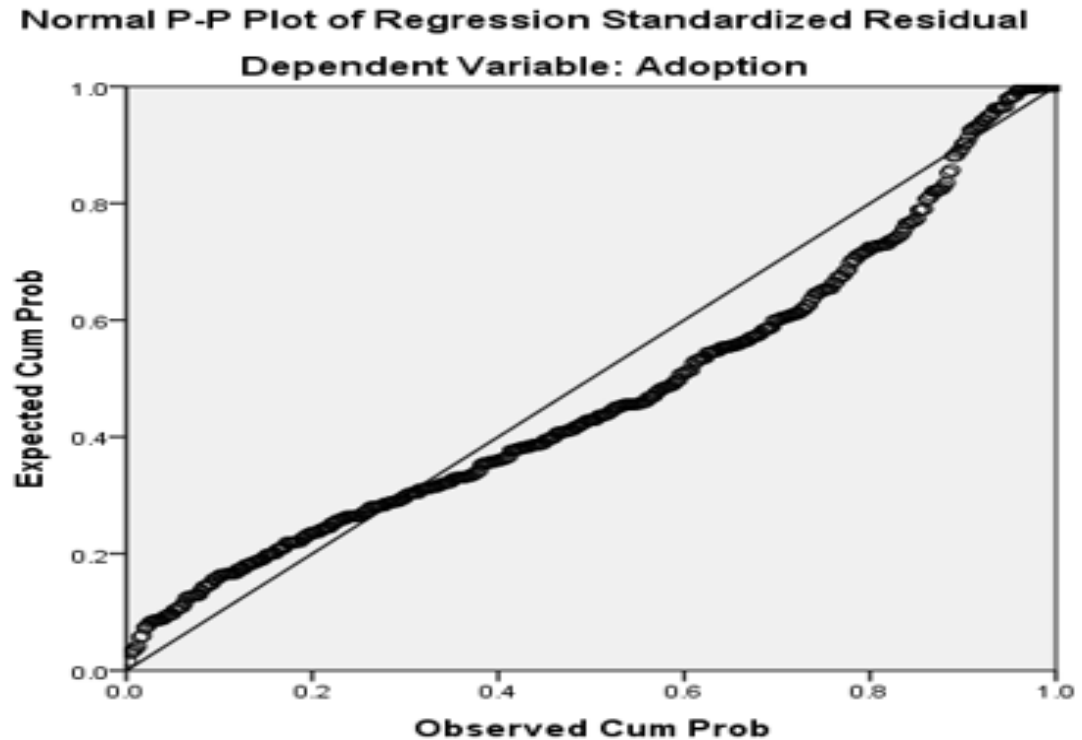


Figure 4.1:- Normality Test Result

Regression model is respectable if the data spreading is regular or near normal. Normal P-P Plot graph regression standardized residual shows that line near the diagonal line and follow the direction of the diagonal line.

Moreover skewness and kurtosis are help to determine normality of the examination. The normal acceptable levels of skewness in between -1 and +1 and 3kurtosis. Therefore all variables have skewness in between -1 and 1. Likewise the kurtosis is also not as such far from the standard, this indicates that data are normally distributed.

	N	Minimum	Maximum	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Awareness	378	1	5	-.671	.125	.139	.250
Interruption	378	2	4	-.257	.125	-.376	.250
Trust	378	2	5	-.584	.125	-.224	.250
Demographic	378	1	4	.919	.125	.811	.250
Organization	378	1	4	-.130	.125	.330	.250
Adoption	378	1	5	.970	.125	.890	.250

(Source: - Own survey result, 2021)

2. Regression Model Summary

In order to examine the influence of factors on user's e-banking adoption, multiple linear regression analysis has been conducted. E-banking taking on was used as the main variable while the underlying factors of e-banking embracing were used as the independent variables. The regression model (see table 4.4) was elucidated summary of findings R square that how far of the change in the measure of e-banking adoption was expounded by the determinant factors of e-banking adoption. Based on this, model coefficient of determination or R^2 obtained was indicated that 0.569% of the deviation in the measurement (e-banking acceptance) function can be expounded by awareness, interruption, trust, demographic and organization factors. Alternatively, R square is 0.569 means that explanatory variables have 56.9 % impact on dependent variable. The remaining 43.1 % impact on e-banking adoption was explained by other variables.

Table 4.4: Summary of linear regression result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df ₁	df ₂	Sig. F Change	
1	.754 ^a	.569	.563	.546	.569	98.245	5	372	.000	2.101

a. Predictors: (Constant), Organization, Awareness, Demographic, Interruption, Trust

b. Dependent Variable: Adoption

(Source: Own survey result, 2021)

3. F-test for E-banking Adoption

ANOVA table shows that level of significance; all predicting variables are related to underlying factors of e-banking adoption and the relationship between them is as compared to alpha value 0.05. (Table 4.5), reveals that the degree of importance that it is acceptable or not acceptable. But results in table was revealed that significance level is 0.000 which is below 0.05 and it is acceptable and shows strong impact of independent variable on e-banking adoption. This table posited that the value of F equals to 98.245. Count significant 0.000. Because the sig < 0.05

means the confidence of this predictions greater than 95% and the probability of this prediction error is below 0.05 which sig 0.000. Therefore, the model was significant with linear relationship in multiple regressions and it indicates that the variation explained by the model not due to chance.

Table 4.5: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	146.398	5	29.280	98.245	.000
Residual	110.866	372	.298		
Total	257.264	377			

a. Dependent Variable: Adoption

b. Predictors: (Constant), Organization, Awareness, Demographic, Interruption, Trust

(Source: Own survey result, 2021)

4. Regression Analysis for E-banking Adoption

We can observe that the magnitude to which each independent variables influence the dependent variable awareness, interruption, trust and demographic factors were found to be the influential factors for e-banking adoption, in their unstandardized beta coefficient values referring awareness, interruption, trust and demographic factors regarding e-banking as the most important determinant factors of e-banking adoption. This F-test table additionally, was showed that the existence of linear relationship in regression equation model. In other words, the four explanatory variables have significant influence on e-banking adoption. According to (Table 4.6), the regression analysis of un standardized coefficients of Beta and Sig values for the four independent variables were revealed that, awareness, interruption, trust and demographic factors; (0.867), (-0.458), (0.401) and (0.397) respectively. Their significance levels are 0.000, 0.000, 0.000 and 0.001 respectively, which one item is greater than 0.05 significance level but the other four are important impact on the dependent variable (E-banking Adoption).

Table 4.6: Adoption Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.886	.464		-4.061	.000		
	Awareness	.867	.074	.867	11.789	.000	.214	4.667
	Interruption	-.458	.102	-.281	-4.493	.000	.297	3.369
	Trust	.401	.091	.293	4.406	.000	.262	3.810
	Demographic	.397	.124	.187	3.203	.001	.340	2.940
	Organization	-.057	.091	-.026	-.633	.527	.676	1.479

a. Dependent Variable: Adoption

(Source: Own survey result, 2021)

To express the dependent variable (adoption of E-banking) and independent variable (awareness, interruption, trust and demographic factors in mathematical equation)

Let:

Y= Adoption of E-banking,

X1= awareness,

X2= interruption,

X3= trust

X4= demographic factor

Therefore, the general relationship is written mathematically as follow:

$$Y_i = 0.867 X_{1i} + -0.458 X_{2i} + 0.401 X_{3i} + 0.397 X_4$$

5. Discussion of Regression Results

The aim of this exploration be situated to survey how selected explanatory variables influence e-banking adoption and to gain insights about the factors for e-banking adoption.

According to study the explanatory variables awareness on, interruption of E-banking equipment, trust and demographic factors were identified as critical to e-banking adoption.

1. Awareness and Customers' Taking on E-Banking Service

The result of regression analysis shows that awareness has a significant positive effect on acceptance of e-banking (sig.000). When awareness is increases by a single unit acceptance of e-banking will be increase by 0.867 (with the positive beta value of 0.867).

2. Interruption and Customers' Acceptance of E-Banking Service

The result of regression analysis shows that interruption of e-banking equipment has a significant negative effect on acceptance of e-banking (sig.000). When interruption of e-banking equipment is increases by a single unit acceptance of e-banking will be decrease by -0.458 (with the positive beta value of -0.458).

3. Trust and Customers' Acceptance of E-Banking Service

The result of regression analysis shows that trust has a considerable encouraging effect on acceptance of e-banking (sig.000). When trust is increases by a single unit receiving of e-banking will be increase by 0.401 (with the positive beta value of 0.401).

4. Demographic and Customers' Embracing of E-Banking Service

The result of regression analysis shows that a demographic element has a considerable encouraging effect on acceptance of e-banking (sig.001). When demographic is an increase by a single unit acceptance of e- banking will be increase by 0.397 (with the positive beta value of 0.397).

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

The principal determination of this research is to discover elements disturbing recognition of electronic banking scheme in CBE. To explore the impacts touching the approval of e- banking the researcher attempt to organize different questionnaire and filled by the respondent and the result of summary is discussed in chapter four. This chapter, based on the discussion in chapter four, presents the summary finding, conclusions and recommendations of the study.

5.2 Summary of Findings

The research objective was to explore elements that upset the acceptance of e- banking scheme in the customers of selected branches of CBE.

Lack of consciousness about e- banking is a barrier to adopt e-banking services. Customers have not enough information about e-banking services and the bank does not have provided help on its website is considered as a factor affecting e- banking services. Demographical factors like gender, age, and education level also shake the acceptance of e-banking in CBE. Finally lack of trust on the system is considered as a major factor to adopt e-banking in CBE.

Most barriers in accepting e- banking system conferred in this study come from the external environments like; lack of ICT infrastructure including poor network and internet connectivity (connection problem sometimes there is a difficulty to confirm transaction takes place or not).

Respondents agreed on realizing technological innovation requires high investment cost; Banks require skilled IT experts in order to implement E- banking and lack of technical and managerial skills to implement e-banking system as barriers for the recognition of e- banking in CBE.

5.3 Conclusion

The research results exposed that the banking division in CBE is excited to adopt the e-banking service as an optional service delivery canal by identifying its main barriers and drivers. The e-banking service presents an opportunity for prompt growth at lower cost by leveraging on the standing investment of marketing agents through implementation of ICT.

E- banking are not well adopted by clients of CBE because of low degree of client awareness, low degree of ICT structure, shortage of customers trust, lack of government support and awareness towards the technology and customers' suffering to use the technologies that holds customers adopt the e-banking service. Improvements are required to enhance client confidence towards the system. Lack of rivalries from foreign banks is also another challenge in adopting the e- banking in the country. The predominant technical and managerial skills available in the commercial bank towards adopting the e-banking, culture of the society, resistant to change, high level of illiteracy are originate to be restricted to impact the technological adoption rate.

In general, the consequences of the study highlight factors inducing the receiving of e- banking in CBE. Barriers identified in this study while adopting the e-banking services may help to cursor the best alternative course of activities to improve its development. It will also be well-regarded by increasing awareness and accommodating towards the system.

5.4 Recommendations

Centered on the above conclusion the researcher recommends the following opinions that will help the CBE in minimizing the factors that face the embracing of e-banking service;

- With a restricted and poor quality of ICT infrastructure, E-banking acceptance and practice cannot do well, so the government has to support banking industry by investing on ICT infrastructure development, providing necessary infrastructure like electricity and telecom services especially in rural area of the country.
- The banks and the stakeholders should involve in continuous research activities to identify the customers' needs for further development of the e-banking services.
- Some Electronic banking customers mostly use manual banking. Hence, The representative body should work on awareness creation and resolve ATM frequent breakdown problem in order to build consumer trust on e-banking adoption.
- As awareness, interruption of e-banking equipment, trust on the system and organization has factors positively affect customer comfort on e-banking so CBE management and service provider staff should give special attention to these dimensions in order to increase their customers' comfort level.
- The study shows that majority of the bank e-banking customers are males. This is unfair, especially in a country where feminist groups are fighting for women empowerment.

Therefore, recommended that the management take notice of this phenomenon and revert it to at least create some gender balance in their future service.

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Appendices

Appendix. A

**Addis Ababa University Faculty of Business and Economics
Department of Master of Business Administration Finance
Questionnaire on Factors Affecting Adoption of E-banking**

Dear Respondents,

This questionnaire is designed to gather information about factors affecting the adoption of e-banking service. All responses will be used to conduct a study for partial fulfillment of the requirements of the Degree of Master of Business Administration in Finance. I would like to assure you that you will be guaranteed confidentiality as I do not ask your name here and your responses will 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.

Genet Yitayew

Mobile: 251913 07 82 05

E-mail: genetyz2018@gmail.com

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

1. Male 2. Female

2. Age of the respondent

1. 20-30 years 2. 31-40 years 3. 41-50 years
4. 51-60 years 5. Above 60 years

3. Educational level of the respondent

1. Primary school 2. Secondary school 3. Diploma holder
4. First degree holder 5. Master's degree 6. Above Masters

4. Main occupation of the respondent:

1. Government Employee 2. Private Employee 3. Private Business

4. Student 5. Other

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

1. Less than birr 2000 2. Birr 2001-3000 3. Birr 3000-4000
 4. Birr 4000-5000 5. Above birr 5000

Part II: Factors affecting adoption of e- banking in CBE.

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.

- 4 Strongly Disagree (SD) 4-Disagree (D) 3- Neutral (N) 2- Agree (A) 1- Strongly Agree (SA)

	Awareness of e-banking	SA (1)	A (2)	N (3)	D (4)	SD (5)
1	The bank advertises and teaches the customers to use e-banking through mass media					
2	I got informed about the service of e-banking outside the bank					
3	I have informed about the allowed transaction limit using e-banking channels					
4	I have informed about the risks may face when using e-banking service					
5	I have informed about the service fees and charges when using e-banking service					
	Interruption of E-banking Equipment’s	SA (1)	A (2)	N (3)	D (4)	SD (5)
1	No other systems which substitute ATM facilities for customers when temporary problem happen in the machine.					
2	Absence of sufficient technicians in all banks who solve breakdown of ATM machine					
3	My bank has acceptable ICT infrastructure to conduct e-banking					
4	When there is an ATM breakdown my bank handles the problem faster.					
5	ATM usage in my bank branch has led to timely and effective withdrawal of cash					
6	Slow internet connection reduces the acceptance rate of E- banking services.					
7	Because of connection problem sometimes there is a difficulty to confirm transaction takes place or not.					

	Trust	SA (1)	A (2)	N (3)	D (4)	SD (5)
1	Customers have great degree of belief on the bank and are satisfied with safety of electronic 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	SA (1)	A (2)	N (3)	D (4)	SD (5)
1	Male customers of the bank more exercise the E-banking services than female customers.					
2	A high amounts of illiteracy upset the informal practice of E-banking.					
3	Young clients of the bank consume e- banking facilities than old clients.					
4	Clients level of literacy weight the adoption of e-banking					
5	Customers those have more income use e-banking service than customers who have low income					
	Organizational Factors	SA (1)	A (2)	N (3)	D (4)	SD (5)
1	Applying technological innovation needs large investment budget.					
2	Banks need experienced human resource in order to appliance e- banking.					
3	Banks need experienced IT staffs' in performing technological innovation.					
4	Technical and managerial abilities of personnel on using technological innovation have impact on adoption e-banking					
5	Inaccessibility of experienced and capable employee in related with e-banking is the trial for banks to exercise e-banking					
	Adoption of e-banking	SA (1)	A (2)	N (3)	D (4)	SD (5)
1	There is a great possibility of using e-banking in my near future.					
2	Using the electronic banking system enables me to accomplish banking activities more quickly.					
3	I will strongly recommend others to use the electronic banking scheme					

Appendix B

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The bank advertises and teaches the customers to use e- banking through mass media	83.90	91.544	.734	.696
I got informed about the service of e-banking outside the bank	83.89	89.256	.740	.692
I trust in the safety of online money transfer.	84.13	102.144	.195	.734
I trust in the safety of online money transfer.	83.60	97.509	.480	.715
The bank advertises and teaches the customers to use e- banking through mass media	83.90	91.544	.734	.696
No alternative systems Which substitute ATM services for customers when temporary problem happen in the machine.	83.72	91.533	.742	.696
Customers have high degree of trust on the bank and are satisfied with security of electronic banking service provided by the Bank.	84.15	91.990	.678	.699
I trust in the safety of online money transfer.	84.13	102.144	.195	.734
When there is an ATM breakdown my bank handles the problem faster.	83.61	101.941	.255	.729
Customers have high degree of trust on the bank and are satisfied with security of electronic banking service provided by the Bank.	84.15	91.990	.678	.699
I am worried to use Electronic banking Service because other people may be able to access my account	83.19	96.653	.711	.708
Customers those have more income use e-banking service than customers who have low income.	85.48	126.049	-.786	.789
Customers have high degree of trust on the bank and are satisfied with security of electronic banking service provided by the Bank.	83.77	90.029	.704	.695
When there is an ATM breakdown my bank handles the problem faster.	83.61	101.941	.255	.729
I am worried to use Electronic banking Service because other people may be able to access my account	83.19	96.653	.711	.708
Banks require skilled human resource in order to implement e-banking.	85.64	105.292	.115	.737
Male customers of the bank more exercise the E- banking services than female customers. Male customers of the bank more exercise the E- banking services than female customers.	85.13	91.236	.729	.696
A high rates of illiteracy affect the easy practice of E-banking.	85.30	129.352	-.799	.798
Young customers of the bank utilize e- banking services than old customers.	85.50	125.391	-.766	.787
I am worried to use Electronic banking Service because other people may be able to access my account	83.27	97.009	.631	.710
Customers those have more income use e-banking service than customers who have low income.	85.52	125.067	-.761	.787
Implementing technological innovation requires high Investment cost.	85.54	105.198	.126	.736
I am worried to use Electronic banking Service because other people may be able to access my account	83.32	96.552	.625	.709
Banks require skilled IT personnel's in implementing technological innovation.	85.64	105.627	.132	.736
Technical and managerial skills of staffs on using technological innovation have influence on adoption e-banking	85.29	129.741	-.806	.799
Unavailability of competent and skill employee in related with e-banking is the challenge for banks to practice e-banking	85.60	95.334	.698	.705
There is a great possibility of using e-banking in my near future.	85.58	94.727	.701	.704
Using the electronic banking system enables me to accomplish banking activities more quickly.	85.52	96.202	.700	.707
I will strongly recommend others to use the electronic banking system	85.59	96.254	.737	.707