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SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING AND FINANCE

EFFECT OF ELECTRONIC BANKING SERVICE QUALITY ON CUSTOMER SATISFACTION: THE CASE OF SELECTED COMMERCIAL BANKS IN ADDIS ABABA

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Declaration

I hereby declare that the thesis entitled "Effect of E-banking service Quality on Customer Satisfaction: The Case of Commercial Banks in Ethiopia Addis Ababa region" is my original work. I have carried out this study independently with the guidance and support of the research advisor, Dr. Takele Fufa. Any other contributors or sources used for the study have been duly acknowledged. Moreover, this study has not been submitted for the award of any Degree or Diploma Program in this or any other Institution.

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Acronyms & Abbreviation

AB……..Agent Banking

ANOVA…… Analysis of variance

ATM…….. Automatic teller machine

AIB……. Awash International Bank

BOA……... Bank of Abyssinia

CBE…… Commercial Bank of Ethiopia

CSEB…… Customer satisfaction in electronic banking

CORE banking… Centralized on line real-time electronic banking

DB…….. Dashen Bank

E-banking……. electronic banking

EBSQ…… Electronic banking service quality

EFT…… Electronic fund transfer

ICT……. Information communication technology

IDT……... Innovation diffusion theory

NBE……... National bank of Ethiopia

OIB…… Oromia International Bank

POS…… point of sale

SERVQUAL…… Service quality

Abstract

The objective of this study was assessed and examines the effect of e-banking service quality on customer satisfaction in case of both private and public commercial banks in Addis Ababa. The study was an exploratory research design and used the quantitative research approach. The data was analyzed by undertaking the descriptive statistics, Pearson correlation, and multiple regression analysis by using statistical package for social science (SPSS V.20). Primary data were collected by using 5-point Likert-scale questionnaire through conveniently selected active e-banking customers and also interview conveniently selected branch managers and e-banking customer service supervisors of the both private and public commercial banks in Addis Ababa. Distributed 178 questionnaires, 153 of them were properly filled and returned for analysis. The findings of the study shows that the five service quality dimensions (reliability, responsiveness, assurance, empathy and tangibility) have positive relation and significant effect of e-banking service on customer satisfaction. Furthermore, the results generated by e-banking service quality dimensions explain significant variation in customer satisfaction. As result researcher concluded that e-banking service quality dimensions have positive relation and significant effect e-banking service on customer satisfactions thus, management bodies of commercial banks should focus intense attention to strengthen these service quality dimensions.

Key words: Customer satisfaction, e-banking, service quality, information and communication technology, SERVQUAL

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Banking institution have always been a highly information intensive activity that relies heavily depend information technology to amass, process deliver the technology to all or any relevant users. Not only information technology critical within the processing of data, it provides away for banks to differentiate or unique their business by products and services. It absolutely was found that banking institution needn't only innovate and update their products and services, but also provide quality service to their customers so as retain their demanding discerning customers (Braghai, 2007).

E-banking is defined as a variety of self-service platforms such as online banking (mobile banking and internet banking), phone banking, and PC banking whereby customers access these services using electronic devices like personal computer, Automated teller machine (ATM) and Point of sale terminals without their physical presence in the bank (Pikkarainen et al., 2004).

Furthermore, the term electronic banking or digital banking refers the utilization of information and communication technology by banks to provide services and manage customer relationship more quality and most satisfactorily (Charity-commission, 2003). Consistent with vandemerew and rada (1998) electronic banking is that the use of computer and telecommunication to enable banking transactions to be done by telephone or computer instead of human interaction. Furthermore Daniel (1999) defines electronic banking service as major information services of a bank to serve its customer via online banking (internet and mobile banking) and card banking service.

Christopher et al. (2006) indicated that e-banking provides an important channel to sell products and services of banks and is perceived to be a necessity for banks to become successful by delivering quality e-banking services to customers. It is critical in the transformation/revolution of banks in areas such as products and services and how they are delivered services to customers. Thus, it is seen as an important tool in the development, growth, promotion of innovation and enhancing competitiveness of banks (Gupta, 2008).

Simon and Thomas (2016) state that Africa and other developing countries e-banking adoption has been inhibited by the quality, availability and the cost of accessing telecommunication infrastructures due to lack of skilled staff, low internet penetration, and power interruption hinder the growth of e-banking. As one of developing countries Ethiopian banking system face similar challenges and electronic payment systems are at an embryonic stage. Moreover, among commercial banks in Ethiopia very few of them are engaged with the diffusion of e-commerce and besides, among several services of e-banking, they are limited to ATM service.

Customer satisfaction is a much sought-after phenomenon in today's highly competitive and globalized market place. It refers to the extent to which customers are happy with the products and/or services provided by an organization (Simon and Thomas, 2016). Good customer service is the main factor that will determine in the future the business will survive and profitable. Due to rapid technological changes and market competition service quality becomes an increasingly important issue. Therefore, understanding a service quality issue becomes important to satisfy customers (Simon, 2016).

The developments of technologies have enabled organizations to provide superior services for customers satisfaction. The banks should maintain close and stable relationship with their customers by providing high quality product and services. Thus, e-banking service benefits the customer by allowing easier access to financial services, convenience and time saving in managing their finance (Al-Smadi, 2012).

The SERVQUAL model developed by Parasuraman et al. (1988) proposed a five dimensional construct of perceived service quality dimensions: responsiveness, reliability, assurance, empathy and tangibles, as the instruments for measuring service quality on customer satisfaction and the main purpose of this study to examine and assess effects of e-banking service quality on customer satisfaction in commercial banks in Ethiopia particularly Addis Ababa region.

1.2. Statement of the Problem

According to Agarwal and Josh (2016) the first major mission and purpose of any business organization is satisfying customers by providing quality services. When customers are satisfied the organization achieve higher sales, profit and market share and vice versa.

When any business organizations full-fill customers need through technology advancement supported quality service not merely the customers satisfy but also the organization achieves higher sales, profit, market share and competitive advantage within the competitive business environment. So it's essential for business companies to satisfy their customers using anyone of the mechanism which is applying technology supported channels consistently. Likewise banks as enterprise should give intense attention to the rationale behind the means of satisfying customers by supporting electronic banking channels or banking technology. E-banking is adopted by banks so as to improve their service delivery, minimize waiting time in the banking hall, enable customers to withdraw cash anytime, aid payment and remittance, request for online statement, or even transfer deposit to a third-party account. The benefits banks derive from E-banking in banking operations especially with respect to service delivery improved efficiency and effectiveness of their operations so that more transactions can be processed faster and most conveniently (Agarwal & Josh, 2016).

As information technology promotes bank services, it has also some impact on service quality. However, regardless of the benefits obtained from electronic banking, electronic banking in Ethiopia banks is facing some challenges. These challenges affects customers satisfaction were unreliability of the service, lack of sufficient alternative system which substitutes the services for the customer when temporary problem occurs, lack of consistent network, under-development of technological infrastructure, low level of relevant knowledge creation and innovation, interruption of network,e-banking customers are complaining about quality service, network fluctuation and power interruption.

Therefore, Service quality and customer satisfaction in digital channel or electronic banking service are still critical challenge in Ethiopia banking industry, which needs study to examine the effect of e-banking service quality dimensions on customer satisfaction and way forward to improve e-banking service quality on customer satisfaction.

Some related study had conducted on the effect of electronic banking electronic banking services quality on customer satisfaction. As studies of Shittu (2010) indicated almost all banks in Ethiopia have adopted electronic banking as a method of enhancing service quality which leads increasing customer satisfaction but it had been limited to adoption of e-banking without including service quality dimensions as effect or impact of electronic banking service on customer satisfaction

According to the study of Yitbarek (2015) dimensions of service qualities like simple use, reliability and transaction efficiency have impact on customer satisfaction in electronic banking within which he stated other variables could have an influence on customer satisfaction, he was not embraced five famous service quality dimensions as great contribution e-banking service on customer satisfaction.

A study conducted by Fikerselassie (2017) concluded that service quality and security/ privacy are the major factors that strongly lead to customer satisfaction of the e-banking customers whereas reliability, Ease of use, time of deliver and Access are the four dimensions which have been insignificant impact on the customer satisfaction thus their result runs contrarily to that of Bateson (1985) and Bowen (1986) who indicated that access, reliability, ease of use, and time of delivery are significant on customer satisfaction.

As studied Mesfin (2018) concluded in his study, all service quality dimensions have positive relation and significant effect e-banking service on customer satisfaction; but tangibility has relatively low positive and insignificant effect of e-banking service on customer satisfaction. In his findings reveals that except tangibility, four service quality dimensions have great contribution to deliver quality service and customer satisfaction on e-banking service.

Due to these existing problems and inconsistent findings, this study focused on assessing and examining the effect of e-banking service quality on customer satisfactions by identifying service quality dimensions that effect on customer satisfaction in commercial banks in Ethiopia. Based on above disclosed problems initiated the researcher to carry out a study the effect of electronic banking service on customer satisfaction in Ethiopian Banking industry (in both private and public commercial banks). To achieve this purpose, the researcher specifically formulates the following basic research questions:

1.3. Research Questions

The study answerer to the subsequent questions

1). what are major E-banking service qualities dimensions that have effect on customers satisfaction?

2). Are customers really enjoying in electronic banking service?

1.4 Objective of the Study

1.4.1. General Objective

The general objective of this study is to assess and examine the effects of e- banking services quality on customer satisfaction in Ethiopian banking industry

1.4.2 Specific Objectives

1). To identify the basic dimensions of electronic-banking service quality that have effects on customers satisfaction.

2). To analyze customer satisfaction in using e-banking services

1.5. Major Hypothesis

Ho: Electronic banking service quality dimensions have no positive significant effect on customers satisfaction

1.5.1. Sub Hypothesis

Ho1: Reliability has no a positive significant impact on customer satisfaction towards e-banking.

Ho2: Responsiveness has no a positive significant impact on customer satisfaction towards e-banking.

Ho3: Assurance has no a positive significant impact on customer satisfaction towards e-banking.

Ho4: Empathy has no a positive significant impact on customer satisfaction towards e-banking.

Ho5: Tangibility has no positive significant impact on customer satisfaction toward e-banking

1.6. Significance of the Study

The study is expected to add to the existing knowledge in electronic banking field of study in Ethiopia and may help academicians as a reference who might be interested in carrying out their research. It enables the commercial banks and National Bank of Ethiopia, the supervisory and regulatory body, to have a better understanding of the electronic banking dimensions and their contribution toward customer satisfaction and also it helps Ethiopian Tel communication, and Ethiopian electric power authority so as to make alerts identify challenges those influences on electronic banking service on customer satisfaction.

1.7. Scope of the Study

The study is delimited of geographical, conceptual, methodological and time scope. Geographically, the study considers only in Addis Ababa region. Conceptually, the study is conducted to assess and examine the effects of e-banking service quality on customer satisfaction based on the service quality dimensions. Methodologically, among the types of non-probability sampling the researcher was used convenience and purposive sampling technique to select each respondent and banks, due to difficulty to have list of active e banking customers. Furthermore, out of all the various existing e-banking services which mentioned by different researchers, the e-banking services are chosen for the study such as are Mobile banking, ATM services, internet banking and Agent banking service and also study focused only on active electronic banking user customers and also customer who have been using e-banking service (0 up to 5 years) in one public bank (Commercial Bank of Ethiopia) and four private banks (Dashen Bank , Bank of Abyssinia, Oromia International and Awash International Bank) that means one representative branch chosen for the each bank for data collection . Finally, this study is a cross-sectional that examines a particular phenomenon from April-November/2020.

1.8. Limitation of the Study

The study was conducted to assess and examine the effect of E-banking service quality on customer satisfaction in the case of E-banking customers commercial banks in Ethiopia at Addis Ababa region. Furthermore, the study used cross-sectional data to explain the effect of E-banking service quality dimensions; (reliability, responsiveness, assurance, empathy and tangibility) on customer satisfaction. Therefore, the stated results of this research cannot be considered as a representative of the whole commercial banks in Ethiopia, but study conducted only commercial banks located Addis Ababa region.

1.9. Organization of the Study

This study is organized and comprises into five chapters. The first chapter consists of an introduction which consists of background of the study, statement of the problem, objectives of the study, significance of the study, scope of the study, limitation of study and organization of paper. The second chapter discusses about the review of related literature. The third chapter deals with the research design and method of the study. The fourth chapter deals with the analysis, discussion and interpretation of the data. The fifth chapter deals with the summary of findings, conclusions and recommendations of the study. Finally, references, a set of appendices, questionnaire and interviews are presented at end of this paper.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2. Theoretical Literature Review

Introduction

The research problem focused on electronic banking service quality on customer satisfaction. In this area, other scholars have propounded various theories in attempt to explaining the concepts or variables. Also similar researches have been done serving as empirical studies. It is, therefore, important that the researcher reviews some of these theories and earlier works on the subject matter. Although most of these works had been written in different setting and context, their contribution to the success of this study is very meaningful.

This chapter shall broadly look at four major sections. First, theoretical review, this section is primarily concerns with the various theories of electronic banking, service quality and explaining customer satisfaction by using electronic banking and how it satisfies the customer or delivers to the customer. The second section concentrates on empirical works which has been conducted by other researchers and the third section includes conceptual framework and hypothesis.

2.1 Definition of E-Banking

Daniel (1999) defines e-banking as the delivery of banks' information and services by banks to customers through different alternative channels that can be used with different electronic devices such as computer and a mobile phone with browser software, telephone or digital television.

Magemhe et al. (2002) also defined e-banking is nothing but e-business in banking industry. e-banking is a generic term for delivery of banking services and products through electronic channels, such as the internet, card banking and mobile banking

Timothy (2012) e-banking alludes to the utilization of the internet as a remote conveyance channel for giving administrations, for example, opening a bank account, transferring funds among diverse accounts and electronic bill presentment and payment. This can be offered in two principle ways. A bank with physical offices can build up a website and offer these services to its clients notwithstanding its customary conveyance channels. Second, is to set up a virtual bank,

where the PC server is housed in an office that serves as the lawful location of such a bank. The banks offer their clients the capacity to make deposits and withdraw funds by means of ATMs (Automated Teller Machines) or other remote conveyance channels claimed by different foundations, for which an administration expense is acquired.

Electronic banking is banking system which any user with electronic devise like a personal computer and a browser can get connected to his bank's website to perform any of the virtual banking functions. In internet banking system, the bank has a centralized database that is web-enabled. (Krishna et al., 2015)

2.2. Form of E-Banking

The e-banking services are the banking services which delivered to the customers through the channel of electronic intelligent devices. Gan and Clemes (2006) state that e-banking can be defined as a variety of platforms such as internet banking or (online banking), TV-based banking, mobile phone banking, and PC (personal computer) banking (or offline banking) whereby customers access these services using an intelligent electronic device, like PC, personal digital assistant (PDA), automated teller machine (ATM), point of sale (POS), kiosk, or touch tone telephone. Thus, the types e-banking services that delivered via intelligent electronic devices are here stated as follows.

Automated Teller Machine (ATM)

ATM is a machine where cash withdraw can be made over the machine without going in to the banking hall. It also sells recharge cards and transfer funds, it can be assessed 24 hours/7 days in a week with account balance enquiry (Fenuga, 2010). Rose (cited in Prince, 2015), describes ATMs as follows: "an ATM combines a computer terminal, database system and cash vault in one unit, permitting customers to enter the banks book keeping system with a plastic card containing a PIN or by punching a special code number into the computer terminal linked to the banks computerized records 24 hours a day. It offers a great deal of banking services to clients. However, as a result of the rapid increase in technology, ATMs go to the extent of given accounts balances and bill payments. Banks use this e-banking device, to gain competitive advantage. The combination of automation and human tellers gives more productivity for the

bank during banking hours (Prince, 2015).

Mobile Banking

Tiwari et al. (2007) state that Mobile banking is a term used for performing balance cheeks, account transactions, payments credit applications and other banking transactions through a mobile device such as a mobile phone or personal digital assistant (PDA). The mobile banking services were offered over SMS, service known as SMS banking. Mobile banking is used in many parts of the world with little or no infrastructure, especially remote and rural areas. The scope of offered services may include facilities to conduct bank and stock market transactions, to administrate accounts and to access customized information. In the study by Fikerselassie (2017) Mobile banking is a system or platform in which customers are automatically updated on any changes in their account. These changes are may come in the form of account debits and credits or any charges to the account. All it needs for mobile banking is a mobile phone with a well-functioning text messaging system. SMS banking falls under this category. This system uses short text messaging system to inform customers of their account credited or debited and financial position.

Internet banking

In the Prince (2015) study, Internet banking is to give customers access to their bank accounts via a web site and to enable them to enact certain transactions on their account, given compliance with stringent security checks. .Internet banking provides convenient and flexible services to customers. It enables customers to transact almost all their banking transactions online. One could check accounts, query the bank and also transfer funds to other people on different accounts, it is the most financially savvy innovative method for yielding higher profitability. Another feature of internet banking is that, it gives a 24/7 access to customers. Furthermore Kwashie (2012) state internet banking services enable customers to transfer funds, download and print statements, request for cheque book and establish and modify standing orders and make payments through the internet.

Point of Sales (POS)

In the study Abebe (2016), POS is sometimes referred to as point of purchase (POP) or checkout is the location where a transaction occurs. A "checkout" refers to a POS terminal or more generally to the hardware and software used for checkouts, the equivalent of an electronic cash register. A POS terminal manages the selling process by a salesperson accessible interface. The same system allows the creation and printing of the receipt. POS systems record sales for business and tax purposes.POS enhances customers to make payment for goods and services without necessarily coming in contact with physical cash as the purchase price would be debited on the buyer's account and credited on the seller's account (Fikerselassie,2017).

Agent Banking (AB)

Agent banking is a retail or postal outlet contracted by a financial institution or a mobile network operator to process clients‟ transactions. Rather than a branch teller, it is the owner or an employee of the retail outlet who conducts the transaction and lets clients deposit, withdraw, and transfer funds, pay their bills, inquire about an account balance, or receive. Government benefits or a direct deposit from their employer. Banking agents can be pharmacies, supermarkets, convenience stores, lottery outlets, post offices, and many more. Clients that transact at the agent use a Magnetic Stripe (Mag-Stripe) bank card or their mobile phone to access their bank account or e-wallet respectively. Identification of customers is normally done through a PIN. With regard to the transaction verification, authorization, and settlement platform.

2.3. Customer Satisfaction

It is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive actually .regarding the fulfillment of some need, goal, or desire (Hansemark and Albinsson, 2004). Customer Satisfaction is to degree at which the product or services rich the standard level of the buyer in his or her expectations or exceed his/her expectation. It deals with what people called as surprise quotient. This is to extend at which firms give out unexpected technical characteristics or personal service to a customer. This definition talks about the degree at which a firm's performance or it services rich the standard expectation of the customer requirement. Most researchers agree that satisfaction is attitude or evaluation that is formed by the customers by

comparing what they expect to receive to their subjective perceptions of the performance of they actually perceive (Oliver.1980).In today's competitive business environment customer satisfaction is major challenge for the banking sectors due to customers have alternative choice in different types of services like electronic banking services provided by banks so that this study adopts the definitions of customer satisfaction as the desirable expectations of customers via electronic banking service quality in surpassing challenges and using opportunities in to considerations and customer satisfaction is conceptualized as an overall customer evaluation of a product or service based on purchase and consumption experiences over a time period (E.W.Anderson,et.al, 1994) . It is argued that since cumulative satisfaction is based on a series of purchase and consumption experiences, it is more useful and reliable as a diagnostic and predictive tool than the transaction perspective that is based on a one-time purchase and consumption experience. Therefore, the study conceptualizes customer satisfaction as cumulative measured of being an electronic banking service on customer satisfaction.

Literally, customer satisfaction may be described as a process or an outcome. One area that has received considerable debate in customer satisfaction literature is whether customer satisfaction should be defined as an outcome or process. Many early definitions conceptualized satisfaction as a process which is currently a dominating view heeled by most scholars (Oliver, 1980, Parasuraman et.al, 1988) the process perspective presuppose that customer satisfaction is a feeling of satisfaction that results from the process of comparing perceived performance and one or more predictive standards such as expectations or desires (Khalifa and Liu,2002).The customer is satisfied of the performance of the product or services equal to his /her expectations and the opposite is there that is if the expectations less than perceived performance, the customer is highly dissatisfied. Within this context of the researchers believe that customers satisfaction should be defined from the process perspective so as to indicate the impact of e-banking on customer satisfaction as per the utilization of this modern technology in banking industry while customers gets benefits and being challenged when get service through e-banking products (ATM ,MB IB and AB).

2.4. Service Quality

In the existing business environment the concept of quality service is becoming the primary goal of achieving profits through satisfying customers that is why most banks give intense attention to their service package quality so as to conquer the competitive advantage and market share. Johnston (1997) spelt out that the intangibility of service is typically assumed to make consumers evaluations of service quality more difficult than for tangible products. This views based on the natural hesitation of people to evaluate things they cannot touch. The intangibility of services makes them much more subjective product. Quality is a matter of how we feel and of our particular taste. This dependence on subjective feelings means that what is perceived as high quality service may differ between individuals.

Service quality has become a popular area of academic research and has been acknowledged as an observant competitive advantage and supporting satisfying relationships with customers (Zeithmal, 2000). It is concepts that has aroused substantial interest and argue in research. There are difficulties defining and measuring it with no overall consensus emerging on either (Wisniewski, 2001). Service quality has been defined as the overall assessment of a service by the customers (Eshghi*et al.*, 2008), while other studies defined it as the extent to which a service meets customer needs or expectations. Service is assumed to be quality when it consistently conforms to customer expectations (Asubontenget al., 1996; Wisniewski and Donnelly,1996).

Garvin (1987) referred to the product oriented quality approach as objective quality. (Clemes, Gan and Kao, 2007).However, understanding quality in the goods sector is inadequate for understanding service quality because of the fundamental difference between the two terms (Parasuraman, et al., 1985).Again (Parasuraman, et al., 1985) suggest that service quality is performance based rather than objects, therefore precise Manufacturing specifications concerning uniform quality can rarely beset.

Service quality is more difficult for consumers to evaluate than product quality; this is due to a lack of tangible evidence associated with the service (Hong and Goo, 2004). In the past decades, researchers (Carman 1990; Garvin 1987; Parasuraman et al, 1985,1988) have defined and measured service quality by examining the attributes of service quality, while others (Bitner and Hubbert 1994; Oliver, 1997; Parasuraman, Zeithaml, and Berry, 1994) focused on the application

in services to conceptualize the relationship between service quality and customer satisfaction. Therefore, a combination of the service quality and customer satisfaction literature has formed the foundation of service quality theory (Clemes et al., 2007; Parasuraman et al., 1985).

Bitner and Hubbert (1994) define service quality as the customers overall impression of the relative inferiority or superiority of the organization and its services. On other hand, Service quality is not objectively measured according to some technical standards but is subjectively felt by customers and measured relative to customer determined standards (Kwortnik, 2005).The previous literature suggests that the evaluation of quality in services is more difficult than products (Parasuraman et al., 1985). As a result Service quality has confirmed to be a complex concept to analyze and understand (Brady and Cronin, 2001). So that, Rust and Oliver (2000) pointed out that it is essential for companies to develop the awareness of customers' perceptions of service quality.

2.5. The Relationship between Service Quality and Customer Satisfaction

The status or prestige of an organization is determined by the quality of the provided services. Organization of high quality level of its services has a high competitive position. Studies confirmed that service quality and customer satisfaction have strong relationship (Alagheband, 2006; Bedi, 2010; Keiningham, 2005). When the customer receives high quality service his/ her behavior and attitude towards the organization will be positive and that would strengthen the relationship with the organization and vice versa. Customer satisfaction is the most important criteria that enable organizations to ensure the quality of their goods or services (Parasuraman et al., 1985).

In case of the banking industry, recognized standard scales to measure the perceived quality of a bank service is not available. Thus providing high quality service is being taken as an important weapon to survive and maintain competitive advantage (Bateson, 1985) cited in (Thakur , 2011).

For commodity like products, quality can be measured easily by its features. But quality of service depends heavily on the quality of the personnel of service provider or the provider himself. Studies on customers' switching from banks have found that they do so because they considered to be poorly serviced. Quality service improved customer satisfaction and reduced customer erosion (Thakur, 2011).service quality is the key to measure e-banking user

satisfaction. Researchers have paid much attention to the close relationship between service quality and customer satisfaction (Parasuraman et al., 1985).

2.6. Customer Satisfaction and its Consequences

Customer satisfaction has been considered as one of the most important theoretical as well as practical issues for most marketers and customer researchers (Jamal, 2004). Customer satisfaction reflects a post-purchase evaluation of product quality given pre-purchase expectations (Kotler, 1991). Customer satisfaction has traditionally been defined as a cognitive-based phenomenon (Westbrook, 1987). Cognition has been studied mainly in terms of the expectations/ disconfirmation paradigm; also known as the confirmation/ disconfirmation paradigm, which states that expectations originate from the customer beliefs about the level of performance that a product/service would provide (Oliver, 1980).

Many marketing scholars (Tse and Wilton, 1988 Anderson and Sullivan, 1993; Patterson et al, 1997), indicate that customer satisfaction is related to the size and direction of disconfirmation, which is defined as the difference between the post- purchase and post-usage evaluation of the performance of the product/service and the expectations held prior to the purchase. On the other hand, other studies (Dube-Rioux, 1990; Homburg et al, 2006) have recognized that the affect experienced during the acquisition and consumption of the product or service can also have a significant influence on satisfaction judgments.

Customer satisfaction is an ambiguous and abstract concept and the actual manifestation of the state of satisfaction will vary from person to person and product/service to product/ service. The state of satisfaction depends on a number of both psychological and physical variables which correlate with satisfaction behaviors such as return and recommend rate. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organization's products. Organizations of all types and sizes have come to realize that their main focus must be to satisfy their customers.

This applies to industrial firms, retail and wholesale businesses, government bodies, service companies, nonprofit organizations and every subgroup within an organization. There is a substantial body of empirical literature that establishes the benefits of customer satisfaction for firm. Organizations are increasingly interested in retaining existing customers while targeting

non- customers; measuring customer satisfaction provides an indication of how successful the organization is at providing products and/or services to the marketplace.

2.7. Relationship between E-banking service and customer satisfaction

Many banks consider technology as a route for service quality improvements; while others consider it as a cost-effective new service delivery tool whatever the underling strategy nobody questions the importance of technology and adoption by banks. Moreover, it is important to assess how customer find themselves, among these technologies from ATMs to Mobile banking, Internet banking and POS terminals) and can meet real customer needs (Surafel, 2016).

Aghaei, Biglar, Jamshidian and Asadollah (cited in Prince, 2015), using 384 customers in Tehran investigates the effect of e-banking on customer satisfaction finds a positive relationship between e-banking services provided by the surveyed banks and customer satisfaction.A positive correlation between customers' income and satisfaction of electronic banking services is found. Customers experience is positively related to electronic banking service customer satisfaction.

The study conducted by Saha and Siddiqui (cited in Surafel, 2016) also revealed that overall senior customer satisfaction level is poor which can be improved by the bank through enhancing the quality of their IT based services. During the study it is also observed that customers‟ evaluation of e-banking service is affected by their experience in using modern technology of banking system this investigation indicated that demographic characteristics have relationship with IT based service in the banking industry in terms of age, occupation and education of the customers who use electronic banking which illustrated the higher the user of the technology were early age, educated and in good status of occupation. Beside this modern technology can help the banks to achieve higher level of customer satisfaction. The technology alone doesn't guarantee success because customer satisfaction would be based largely on how customers perceive services performance relative to their expectations.

2.8 Electronic Banking Service Quality

E-service has recently become a popular research topic, with the growth of the e-commerce, and a number of published studies have offered a variety of conceptual definitions (Sylvie and Ina, 2010). E-service quality can be described as overall customer evaluations and judgments regarding the excellence and the quality of e-service delivery in the virtual marketplace (Santos, 2003). Parasuraman et.al (2005) also define e-SQ as broadly to encompass all phases of a customer‟s interactions with a web site: the extent to which a web site facilitates efficient and effective shopping, purchasing, and delivery, over all, it is the extent to which a website supports purchases and delivery of products and services in an efficient and effective manner.

2.9. Service Quality (SERVQUAL) model

Service quality has been defined as the difference between a customer's expectation of a service and his/her perception of the service's performance. SERVQUAL stands for service quality and is a service quality measuring tool or model that is used to measure the gap between customer expectation and experience. When expectations are not meet, customers tend to get dissatisfied with the quality of satisfied and further still when expectation are exceeded, the quality of service is perceived to be exceptional (Simon, 2016).

Parasuraman, Zeithaml, and Berry (1985) have developed the ten determinants of Service quality model for measuring service quality on the basis of study on four service sectors; retail banking, credit card services, repair and maintenance of electrical appliances, and long- distance telephone services. Such service quality dimensions: reliability, which involves consistency of performance and dependability; responsiveness, it concerns the willingness or readiness of employees to provide service; competence, means possession of the required skills and knowledge to perform the service; courtesy, involves politeness, respect, consideration, and friendliness of contact personnel; communication, means keeping customers informed in language they can understand and listening to them; credibility, it involves trustworthiness, believability, honesty; security, mean the freedom from danger, risk, or doubt which involves physical safety, financial security, confidentiality; access, it involves approachability and ease of contact; understanding/knowing the customer, which involves making the effort to understand the customer's needs; and tangibles which include the physical evidence of the service.

The ten dimensions service quality Model originally developed by Parasuraman, Zeithaml, and Berry (1985) was reduced to five due to as some of them were overlapping. Thus, out of the ten dimensions, three of them remained intact: tangibility, reliability and responsiveness. The seven remaining dimensions were included in two others: assurance and empathy. Assurance encompasses competency, courtesy, credibility and safety whereas access, communication and comprehension of the user merged under empathy. The analysis of these five dimensions demonstrated that users were using them as criteria for judging the quality of service. The dimensions are not mutually exclusive, yet provide an important framework for understanding the expectations of users, and issues that delineate the service from the point of view of those who will judge it.

Therefore, in this study SERVQUAL model is used to measure to service quality of e- banking provided by selected banks towards their customer satisfaction.

Parasuraman, Berry and Zeithaml (1988) categorized service quality into five dimensions namely: reliability, responsiveness, assurance, empathy and tangibility whose descriptions are defined and explained subsequently as following:

Reliability

It refers capability to deliver service as promised that translated into the ability of the supplier to execute the service in a safe and efficient manner. It depicts the consistent performance, free of non-compliance, on which the user can trust. The supplier must comply with what was promised, without the need for rework. It involves two concepts, dependability and uniformity in performance. Zeithaml and Bitner (cited in Surafel, 2016) advised that customers should be specifically influenced by the reliability of new technology because they might be associated with risks such as the technology malfunctioning.

Responsiveness

It means the willingness to help customers and to provide prompt service. It refers to the availability of the provider to attend voluntarily to users, providing a service in an attentive manner, with precision and speed of response. It concerns the availability of employees of the institution to assist users and provide the service promptly.

Assurance

Parasuraman et al. (1985) defined assurance as knowledge and courtesy of employees and their ability to inspire trust and confidence. According to Sadek et al. (2010), in British banks assurance means the polite and friendly staffs, provision of financial advice, interior comfort, eases of access to account information and knowledgeable and experienced management team.

Empathy

Parasuraman et al. (1985) defined empathy as the caring and individual attention the firm provides its customers. It involves giving customers individual attention and employees who understand the needs of their customers and convenience business hours. It related to whether the organization cares for the user and assists him in an individualized manner, referring to the ability to demonstrate interest and personal attention. Empathy includes accessibility, sensitivity and effort in understanding the needs of users.

Tangibility

Parasuraman et al. (1985) defined tangibility as the appearance of physical facilities, equipment, personnel, and materials that can be perceived by the five human senses. It refers the Outlook of physical equipment and communication resources.

2.11. Benefits of E-banking

E-banking service provides a lot of benefits to the customer, the bank itself and economy as whole. It is competitive branding and as well as better appreciation to the market demands. As such banks that provide services are known to be leaders in technology implementation and advancement. Thus, the better image brand they enjoy. The approach and adoption of the informational technology by businesses has uprooted the constraint of time, distance and communication making the globe really a little village. With e-banking customers can check accounts, transfer money and can have access to numerous banking products and services (Prince, 2015).

Now a day, it is unthinkable that the success of a banking system without information and communication technology. It has enlarged the role of banking sector in the economy. The financial transaction and payment can now be released quickly and easily. The banks with the

latest technology and techniques are more successful in the competitive financial market by generating more and more profitability (Endalkachew, 2013).

Banks can benefit from lower transaction costs as e-banking requires less paperwork, less staffs and physical branches. E-banking leads to higher level of customers satisfaction and retention (Polatogu and Ekin, 2010).

E-banking has made common open doors for banks and businesses around the world, and that is clear in the way they sort out financial transaction. Although opportunities to banks, there are various difficulties such as the innovation of IT applications, the obscuring business sector limits, rupturing modern boundaries, the passage of emerging competitors, and the development of new plans of action (Liao & Cheung, cited inPrince,2015).

2.12. Challenges of E-banking in Ethiopia

Gardachew (2010) found in his study that the banking industry in Ethiopia is underdeveloped and the study identified key challenges for e-banking applications such as; low level of internet penetration and poorly developed telecommunication infrastructure, lack of suitable legal and regulatory framework for e-commerce and e-payment, high rates of illiteracy, high cost of internet, absence of financial networks that links different banks, lack of reliable power supply, and Cyber security issues are the most critical challenges for development of e-banking in Ethiopia.

In the study Agarwal and Josh (2016) the factors which affect customer satisfaction in e- banking service in commercial bank of Ethiopia was identified. Such as, frequent breakdown of ATM service, lack of convenience of e-banking service, under-development of technological infrastructure, low level of relevant knowledge creation and innovation, interruption of network, resistance to changes in technology among customers and service providers as result of fear of risk, lack of fair distribution of e-banking service in all over Ethiopia, long queues are still seen at the banking hall, bank customers still handle too much cash, and hardly do people talk about the e-banking products that are available commercial bank of Ethiopia branches.

The study by Ayana (2010) explored the challenge of e-banking in Ethiopia. E-banking system were not well adopted by Ethiopian banking industry due to low level of ICT infrastructure and lack of legal frame work at NBE, which can initiate banking industry to implement the system. Moreover, the study reported that security risk and lack of trust on the use of technological adoption were other major barriers for the system. In addition, Abebe (2016) also identified security risk, customer familiarity with the service, technical, managerial and implementation skills of e-banking, maintenance capability up on failure, promotion, public awareness, ICT infrastructures and low internet access as major challenges of e-banking service in Ethiopia.

2.13. Reviewed Empirical Studies

Currently eighteen commercial banks operating in Ethiopia, among these sixteen of them are private commercial banks while the rest two of them are public commercial banks. Although a rapid increase in the number of financial institutions, Ethiopian banking institution are still undeveloped compared to the rest of the world in case of quality electronic banking service. Banks in Ethiopia are unable to improve customer service and deliver quality service through technological advancement so that the customers of their commercial banks have missed seldom to satisfy with the technological exposure in banking institution that has been satisfied and entertained elsewhere in Africa and other part of the world. Despite there are some related studies conducted by different researchers in various parts of the world but limited number of researches have been conducted in Ethiopia on the issue of electronic banking service quality and challenges of modern technology related poor development of infrastructure.

Garedachew (2010) studied on the challenges and opportunities of electronic banking in Ethiopia and listed out the foremost challenge of electronic banking industry like lack of suitable legal and regulatory frame works for e-payment and e-commerce, political instability of neighboring countries, absence financial networks that links different banks and high rate of illiteracy.

Jannatul (2010) on his part of study on the impact of variables of e-banking service on customer satisfaction in Bangladesh used the five service quality dimensions namely reliability, assurance, responsiveness, empathy and tangibles are established based on SERVIOUAL model. The results of the study indicated that the factors are the major service quality dimension for

customer satisfaction in e-banking service and particularly the three variables reliability, responsiveness and assurance have more contribution to satisfy the customers of e-banking in Bangladesh.

The study of Hitesh (2015) conducted a research on customer Satisfaction and e-banking services in a Case Study of Tricity that the service quality dimensions such as Responsiveness, tangibility, assurance, empathy and reliability have shown more or less a great impact on customer satisfaction with internet banking services.

According to the study of Yitbarek (2015) dimensions of service qualities like simple use, reliability and transaction efficiency have impact on customer satisfaction in electronic banking service within which he stated other variables could have an influence on customer satisfaction.

Simon (2016) on his part of study on e-banking service quality and Its impact on customer satisfaction in State owned banks in East Gojjam Zone Ethiopia, used the five service quality dimensions namely reliability, assurance, responsiveness, empathy and tangibles are established based on SERVIOUAL model. The results of this study indicated that, except assurance the four service quality dimensions (tangibility, reliability, responsiveness and empathy) have positive and significant effect on customer satisfaction. The finding of this study also indicates that customers were most satisfied with the responsiveness dimensions of e-banking service quality.

Areeba et al. (2016) conducted a study to assess the impact of e-banking service on Customer Satisfaction in the banking sector of Pakistan. The study uses the five dimensions of service quality (tangibility, reliability, responsiveness, assurance and empathy). The result of the study showed that the three service quality dimensions (reliability, responsiveness and assurance) have significant correlation with customer satisfaction whereas Tangible and Empathy not have significant relation with customer satisfaction.

In the study Abebe (2016) entitled on opportunities and challenges in the adoption of e- banking services case in Dashen bank, the results of the study showed that the major obstacles of Ethiopian banking industry faces in the adoption of e-banking are security risk, customer familiarity with the service, technical, managerial and implementation skills of e- banking,

maintenance capability up on failure, promotion, public awareness, ICT infrastructures and low internet access as major challenges in adoption of e-banking service in Dashen bank.

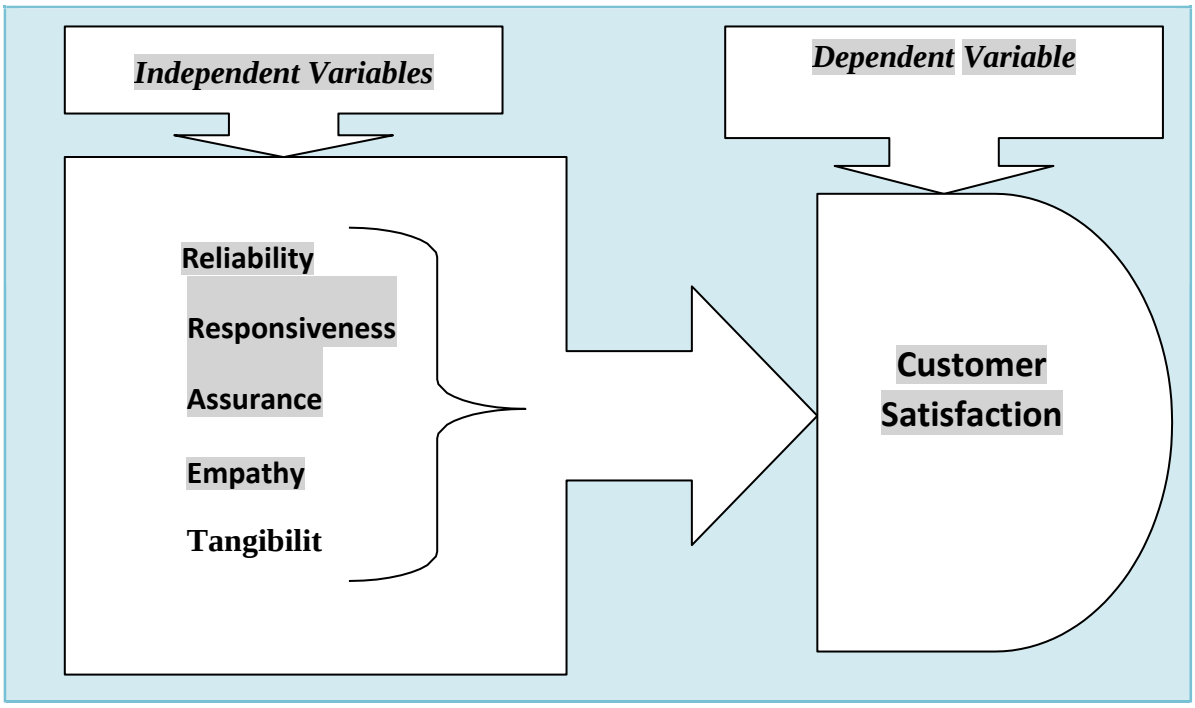
A study conducted by Fikerselassie (2017) concluded that service quality and security/ privacy are the major factors that strongly lead to customer satisfaction of the e-banking customers whereas reliability, Ease of use, time of deliver and Access are the four dimensions which have been insignificant impact on the customer satisfaction thus their result runs contrarily to that of Bateson (1985) and Bowen (1986) who indicated that access, reliability, ease of use, and time of delivery are significant on customer satisfaction.

As studied Mesfin (2018) concluded in his study, all service quality dimensions have positive relation and significant effect e-banking service on customer satisfaction; but tangibility has relatively low positive and insignificant effect of e-banking service on customer satisfaction. In his findings reveals that except tangibility, four service quality dimensions have great contribution to deliver quality service and customer satisfaction on e-banking service.

As summary researcher empirical reviewed observed that previous researchers research study and their findings initially researcher focused on mainly challenges and opportunity electronic banking service at the time of adoption, their findings reveals that lack of suitable legal framework E-commerce ,E-payment and high level of illiteracy. Some of the researchers carried out on impact electronic of the service quality and effect of the electronic service quality on customer satisfaction, they use different service quality dimensions, however inconsistent findings, even some researcher finding contrary to the others findings, based on the previous researchers inconsistent findings , researcher in this study in order fill the gap by assessing and examining the effect of electronic service quality dimension on customer satisfaction.

2.14. Conceptual Framework

The conceptual framework of the study shows that how the service quality dimensions: reliability, responsiveness, tangibility, assurance and empathy variables of the study have effect on the Customer satisfaction. The independent variables are the service quality dimensions whereas customer satisfaction in e-banking is the dependent variable. The five service quality model has originally developed by Parasuraman et al. (1988). The conceptual frame work of this study is adopted from Simon (2016).



(Source:Parasuraman ;1985) and cited by (Simon ,2016)

Figure 2.1 Conceptual Frame work.

CHAPTER THREE

3. RESEARCH METHODOLOGY

Introduction

This chapter embraces research design and methodology focused following themes: research approach, research design, target population, sampling techniques, sample size, data collection instrument and measurement, validity test, reliability test and ethical consideration.

3.1. Research Design

This study used an exploratory and descriptive research design. Exploratory research design refers to social research which explores a certain phenomenon with the primary aim of understanding the phenomenon or situation. Exploratory research was also used to get clarity and define the problem at hand clearly. As an exploratory study the researcher aims at establishing the relationship between electronic banking attributes and customer satisfaction in electronic banking services so as to add to the existing literature on the subject matter. Descriptive designs were used to describe the current status of electronic service in commercial banks in Ethiopia both selected private and public commercial banks in Addis Ababa region.

3.2 Research Approach

This study was used quantitative research approach. The quantitative research approach makes use of statistics and numbers which are mostly presented in figures and also quantitative data enables the researcher to analyze objectively by using descriptive and inferential statistics.

3.3. Target Population

The target population this study, who were actively using e-banking service, whose age 18 years and above for male and female, knowledge of electronic banking practice and who have been actively using the e-banking service from (0 to 5 years). Data collected from the five selected commercial banks in Ethiopia located in Addis Ababa region with purposively sample selected four private and one public commercial banks branches, such as Commercial bank of Ethiopia (Gulele branch),Bank of Abyssinia (Head office), Dashen bank (kolfe branch), Oromia International bank (Gulele branch) and Awash International bank (Yohannes Branch). The

reason why the researcher chosen these both private and public commercial banks branches because of these branches, proximity to researcher, banks consists a large number of e-banking customers and these banks are using e-banking service each other by interlinked interbank network system (particularly ATM service). The total number of the electronic banking customers of the five commercial banks (five branches were (**37,753**), but actively e-banking users were (**22,428**) as of month June 30, 2020 (Own survey from CBE, BOA, OIB, DB and AIB banks branches).These five commercial banks and one representative branch were chosen ,because these five commercial banks were adopted electronic banking service and delivered e-banking service to their customers and use e-banking with each other with interlinked network (ATM) and they share one country network among themselves and since the study on electronic service quality or digital banking service quality.

3.4. Sampling Technique and Sample Size

The study does not embrace all banks and branches of the 18 commercial banks currently actively operating in all parts of Ethiopia. As a result the researcher purposively selected five banks and chosen one representative branch from the each both public and private commercial bank in Addis Ababa region. Namely, CBE (Gullele branch), BOA(HO) , OIB (Gulele branch), DB (Atena Tera branch) and AIB (Kolfe branch) branches.

Purposive sampling technique to select banks and braches while convenient sampling to distribute questioners and interviews because it was not possible to get access to the list of active e-banking customers to conduct probability sampling procedure. Convenience and purposive sampling techniques are non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher (Black et al, cited in Fikerselassie, 2017). Saunders et al. (2009) described about convenience sampling that it involves selecting those cases that are easiest to obtain for your sample and the sample selection process is continued until researcher pre scheduled sample size has been reached.

Based on the sample size of the target population of five commercial banks that means one representative branch from each commercial bank 22,428 active e-banking user customers and sample was driven by using sample size computation of Yamane formula 178 active e-banking customers were participated, however 153 respondents appropriately filled and returned their

questionnaire. Thus constituting 86% of the questionnaires are filed properly returned for analysis, while 25 of the respondents didn't respond and never returned the questionnaire and constituted about 14%.

Table 3.1 Selected commercial banks branches in A.A with proportion of sample size

S.No	Name of CBS Branches	Branches of CBS	Total No of E-bakin g custo mers	Total no. Active E-banking customers	Total proporti on	Sample Size
1	CBE-	Gulele	9,521	5,745	25.61%	39
2	DB-	Atena Teara	7,387	3,590	16%	25
3	BOA-	Head Office	6,623	3,981	17.75%	27
4	OIB-	Gulele	6,975	4,545	20.26%	31
5	AIB	Kolfe	7,247	4,567	20.36%	31
	Total		**37,753**	**22,428**	**100%**	**153**

(Sample selected representative commercial banks branches, two consecutive physical -year E-banking data (2019 & 2020)

Sample were computed by using only active electronic banking customers from the selected commercial banks branches by applying Yemanes sampling formula and from the given electronic banking customers only 40% are active electronic customers.

No. E-banking customers –No. active E-banking customers = No. inactive E-banking customers

This above table indicates that only 60% of E-banking customers use E-banking service actively reaming 40% of E-banking customers are not properly use E-banking service actively and become inactive or dormant status, this may indicated that customers lag behind to use this service due lack of focus on basic service quality dimensions.

3.5. Source of the Data

Quantitative and qualitative data gathered from both primary and secondary data sources. The study basically depended on quantitative and primary sources of data from active e-banking customer. The primary data was collected from active e-banking customers through questionnaires and interview. Primary data are necessary in order to get relevant, original and reliable first-hand information about the problem under study. Questionnaires are the major instrument of collecting the primary data because of its advantages over the other methods and its efficiency or ability to collect more information from the source.

Secondary data were gathered from reports journals and written papers are also important in order to get information's that are not possible in primary data. The primary data for this study collected through structured close-ended questionnaire and semi-structure open ended interviews.

3.6 Data Collection Tools

The data was collected mainly from primary sources through survey questionnaire and interview which enables the researcher to gain genuine information. Researcher distributed closed ended questionnaire for active electronic banking customers selected conveniently both private and public commercial banks located at Addis Ababa region where as open ended interview also distributed to both private and public commercial banks branch managers and electronic banking supervisors from (30-June, 2020 up to 30- oct-2020). The questionnaire was anchored on 5-point Likert type scale with the following degree of response :(strongly disagrees, disagree, moderately agree, agree and strongly agree). The use of Likert scale was to make it easier for respondents to answer question in a simple way.

3.7 Questionnaire and Interview

The questionnaire consisted of structured close ended questions and structural open ended interview. The questionnaire has five major sections and the pertinent information about the issue on quality of electronic banking services on customer satisfaction .The questionnaire was classified in to four parts. The first part of the questionnaire was about the demographic characteristics of respondents and their relationship with e-banking service, second part was intended to measure the e-banking service quality dimensions, the third was question related customer satisfaction in e-banking service and the last section was interviews for branch managers and e-banking service mangers.

3.8. Data Analysis

The collected data was coded and entered into Statistical Package for Social Science (SPSS) software version 20. Both descriptive and inferential statistical was used for data analysis. The descriptive statistics analysis results were shown by frequency distribution, percentages, mean and standard deviation whereas correlation, ANOVA and multiple regression analysis were used to show inferential statistical analysis.

Descriptive analysis was used to describe the data that was collected from questionnaires in the form of frequency, percentage and tabulation form. Additionally, correlation, NOVA and multiple regression analysis were conducted to explain the relationship and effect of the independent variables on customer satisfaction in electronic banking service (dependent variable)

3.9 Research Model

The researcher employed MLR models to determine significance level of the variables towards E-banking induced customer satisfaction and by employing MLR model formulated the equation by using service quality dimensions (reliability, responsiveness, assurance, empathy and tangibility) as independent variable where as customer satisfaction in electronic banking as dependent variable and the findings indicated that these independent variables have positive relation and significant effect electronic service on customer satisfaction.

$CSEB = \alpha + \beta 1REL + \beta_2 RES + \beta_3 ASS + \beta_4 EMP + \beta_5 TAN + \varepsilon$

$CSEB = (\alpha + \beta x1 + \beta 2x2 + \beta 3x3 + \beta 4x4 + \beta 5x5 + \varepsilon)$

Thus α (alpha) is a constant, represents the customer satisfaction when every independent variable are zero

REL=Reliability

RES=Responsiveness

ASS=Assurance

EMP=Empathy

TAN=Tangibility

β (beta) is coefficient of estimate,

ε is the error term,

Validity Test

It refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration. Validity refers to the degree to which a statistical instrument measures what it is intended to measure. It emphasizes the accuracy of a measurement instrument (Saunders, et al., 2009).

Therefore, this study ensured the validity through extensive literature review and adopted the five SERVQUAL dimensions model instruments which originally developed by Parasuraman et al. (1988) and which was used in previous researchers (Gezahegn,2015, Areeba et al., 2016; Surafel, 2016 and Simon, 2016).

Reliability Test

Reliability refers to the extent to which your data collection techniques or analysis procedures will yield consistent findings. It based on whether the research method and design is accurate (Saunders, et al., 2009). The reliability test is an important instrument to measure the degree of consistency of an attribute which is supposed to measure. It measures the internal consistency of the items in a scale.

The normal range of Cronbach‟s coefficient alpha value ranges between 0-1 and the higher values reflects a higher degree of internal consistency.

The reliability test indicates that the extent to which the items in a questionnaire are related to each other. Cronbach's alpha is one of the most commonly accepted measures of reliability.

The most commonly accepted value of Cronbach's alpha is 0.70 as it should be equal to or higher than to reach internal reliability (Eskandarpour, 2016).

Table. 3. 2. Reliability of the study instrument

Dimension	N of Items	Cronbach's alpha	Remark
Reliability	5	.847	Reliable
Responsiveness	4	.910	Reliable
Assurance	4	.809	Reliable
Empathy	5	.920	Reliable
Tangibility	4	.800	Reliable
Customer satisfaction	6	.931	Reliable

(My own survey 2021): SPSS Result

Ethical Considerations

The researcher was obtained supporting letters from Addis Ababa university Accounting and finance department and distributed supportive letter to selected both private and public commercial banks Addis Ababa and had got permit before the commencement of the research. During the collection of data via structured close ended questionnaires and semi structure interviews, each respondent and interviewer were first informed about the objective of the study whereas the ethical issues such as privacy, anonymity of respondents, confidentiality and voluntarism were considered and assured the objective of the study.

CHAPTER FOUR

4. RESULTS AND DISCUSSION

4.1. Introduction

This chapter presents the statistical outcome of the research by using statistical package for social science version twenty (SPSS V.20). It contains following sections: descriptive statistical analysis, Pearson Correlation analysis, ANOVA, multiple regression analysis output,and interview responses

Questionnaires were distributed 178 active e-banking customers personally handled, close follow up and guide in filling the questionnaire; however 153 respondents appropriately filled and returned their questionnaire. Thus constituting 86 % of the questionnaires are filled properly returned for analysis, while 25 of the respondents didn't respond and never returned the questionnaire and this constituted about 14%.

The study was used descriptive statistical analysis to describe the demographic profile, relationship between demographic character and e-banking service, e-banking service quality dimensions and customer satisfaction though e-banking service.

4.1.1. Descriptive Statistics of Demographic Profile

Table 4.1. Respondents gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Female	67	43.8	43.8	43.8
Male	86	56.2	56.2	100.0
Total	153	100.0	100.0	

(My own survey 2021)

Majority of respondents in case of gender as depicted in table 4.1 above are male 56.2% and female were 43.8%, this indicates that the majority of this sampled respondents were males. This results also supported by previous researchers (Fikerselassie, 2017 and Simon, 2016) on the same topic that their finding were male active e-banking user customers took the majority.

Table 4. 2. Respondents of Age

	Frequency	Percent	Valid Percent	Cumulative Percent
18-30	61	39.9	39.9	39.9
31-40	44	28.8	28.8	68.6
41-50	29	19.0	19.0	87.6
>50	19	12.4	12.4	100.0
Total	153	100.0	100.0	

(Source my own survey 2021)

As indicated table 4.2 majority active electronic banking user respondents belong to age group of 18-30 years which accounts 39.9%, followed by 31-40 years (28.8%) followed by (41-50) years (19%) and above 50years having 12.4 % share. This shows that the majority active e- banking customers are between the age (18 – 40) it consist 69%. It implies that the active electronic banking service users are dominated by youth age groups. This finding reveals that most of the electronic banking user customers were found in the working age bracket as they might be much more involving in daily e-banking transactions. Youth age group are more closed to technology than others age groups so that, the bank should have to focus different age groups in order to expansion its e-banking service.

Table 4.3. Respondents of education level

	Frequency	Percent	Valid Percent	Cumulative Percent
primary,	4	2.6	2.6	2.6
Diploma	13	8.5	8.5	11.1
BA degree	74	48.3	48.3	59.4
Master	43	28.1	28.1	87.5
Doctorate	19	12.4	12.4	100.0
Total	153	100.0	100.0	

(Source my own survey 2021)

Regarding education level of the active electronic banking user respondents were predominantly first degree, master degree and doctorate degree holders with 48.3%, 28.1 and 12.4 respectively. This shows that the respondents have high literacy levels. This implies that the reason large numbers of respondents were first degree holders and master degree and above that e-banking service needs to more skills of computer experience. Modern technology, banking system and education level is intact and descendent together.

Table 4.4. Respondents of Occupation

	Frequency	Percent	Valid Percent	Cumulative Percent
Student	27	17.6	17.6	17.6
Business	76	49.7	49.7	67.3
Salaried	37	24.2	24.2	91.5
Pensioners	4	2.6	2.6	94.1
Unemployed	9	5.9	5.9	100.0
Total	153	100.0	100.0	

(Source my own survey 2021)

As far as occupation is concerned, the respondents were business man, salaried, students, unemployed and pensioners with 49.7% 24.2%, 17.6%, 5.3% and 2.6 respectively. This implies that in this finding business owners are more actively use e-banking service because they daily carryout their business transaction by using e-banking service. Next salaried men/women are better e-banking user among occupation category, this due to organizations working with banks to facilitate their business transactions including transferred their salary to employees, and in this case banks encouraged employees to use different e-banking products and e-banking service.

Table 4.5. Reasons for using E-banking service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cash withdrawal	82	53.6	53.9	53.9
	account to account transfer	27	17.6	17.8	71.7
	bill payment	43	28.1	28.3	100.0
	Total	152	99.3	100.0	
Missing	System	1	.7		
Total		153	100.0		

(Source my own survey 2021)

Regarding electronic banking service user customers 53.6% were frequently and actively use card banking service for cash withdrawal and any other payment, because using card banking service easy ,convenient and accessibility and not more complex to use customers even with low educational level, remaining account to account transfer and bill payment were 17.8% and 28.1% respectively; this indicated that customers more predominantly using cash to any business transaction but not much more frequently and actively using these online e-banking products (mobile banking and internet banking and agent banking services),

Table 4.6. Experiences of customers in using E-banking service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-2 YEARS	65	42.5	42.5	42.5
	2-3 YEARS	33	21.6	21.6	64.1
	3-4 YEARS	22	14.4	14.4	78.4
	4-5 Years	19	12.4	12.4	90.8
	> 5 years	14	9.2	9.2	100.0
	Total	153	100.0	100.0	

(Source my own survey 2021)

Regarding customers experience in using electronic banking services more customers have been using electronic banking service 65% (1-2 years),21.6%(2-3 years), 14.4%(3-4 years) ,12.4%(4-5 years) and 9.2% (above 5 years electronic banking service experience). This implies that e-banking service is new technology and which needs more treatment, guidance and practical manual at the time issuance different e-banking products to the customers with including precautions.

Table 4.7. Forms of electronic banking customers use

	Frequency	Percent	Valid Percent	Cumulative Percent
ATM	86	56.2	56.2	56.2
MB	43	28.1	28.1	84.3
IB	8	5.2	5.2	89.5
AB	16	10.5	10.5	100.0
Total	153	100.0	100.0	

(Source my own survey 2021)

This indicates that more e-banking service user customers were predominantly and actively use ATM, for cash withdrawal and any other advance payment service which consists (56.2%).This may be as a result of the fact that the customers more depending on cash transaction. Next to ATM machine, mobile banking, Agent and Internet banking services about 28.1%, 10.5% and 5.2 respectively, this is due to MB (28.1%) and AB (10.5%) service are available at little or no network available remote area, which encourages more customers to use mobile banking services and agent banking service, however below 40% customers have been using mobile and agent banking service. Few customers, which means that (5.2 %) use internet banking services ,this due to which requires knowledge of e-banking practice and banks are not delivery internet banking services to any customer as ATM ,MB and AB because it requires high literacy level with computer knowledge and transaction movement is determinant for both individual and corporate customers.

4.1.2. Descriptive Statistics of E-banking Service Quality Dimensions Mean and Standard Deviation

Descriptive statistical analysis provided the mean (M) and standard deviation(SD) for each independent and dependent variable in order to indicate the sample group averagely agrees or does not agree with the different statements whereas standard deviation shows the variability of an observed response from a single sample. Level of agreement on e-banking service quality dimensions and customers satisfaction in e-banking service. The mean and standard deviation were calculated for the interval scale of independent variables (reliability, responsiveness, assurance, empathy and tangibility) and dependent variables (customer Satisfaction). All the questions related with both the dependent and independent variables of this research were prepared using a five point Likert scale in the form of ordinal scale. But for the sake of simplicity of analysis the variables transformed into interval scale leading the researcher to obtain a single variable for the constructs based on Al-Sayaad et al. (2006) which subsequently depicted as follows.

Table 4.8. Five Point-Scaled Likert Criterion.

NO	Mean Range	Response options
1	1.00-1.80	Strongly Disagree
2	1.80-2.60	Disagree
3	2.60-3.40	Neutral
4	3.40-4.20	Agree
5	4.20 - 5.00	Strongly Agree

Source: Al-Sayaad et al. 2006, Cited in Bassam, 2013.

The following tables present the mean scores and standard deviation of each independent variables service quality dimension namely (reliability, responsiveness, assurance, empathy and tangibility) and dependent variable (customer satisfaction in e-banking services).

Mean and standard deviation

Table 4.9. Respondents reliability servqual dimension

	N	Mean	Std. Deviation
E-banking is reliable	153	3.86	1.47
E-banking system performs the service right the first time.	153	3.93	1.37
The E-Banking system not fails to deliver what promised	153	3.92	1.29
I prefer using E-banking instead of visiting branch for making my transaction	153	4.00	1.17
E-banking delivers accurate transaction services as I desired	153	3.74	1.44
Average of Reliability Dimension	**153**	**3.89**	**1.368**

(Source: Own Survey, 2021)

Table 4.9 above findings shows that the level of agreements of the respondents towards e-banking service quality dimensions on reliability. The dimension's result was ranged from the lowest mean3.74 (e-banking delivers accurate transaction services as I desired) to the highest mean 4.00 (I prefer using e-banking instead of visiting branch for making my transaction).Thus, the average level of agreements of the respondents on reliability dimension scored 3.89 mean with1.368 of standard deviation; it is within the mean range of **3.4 to 4.20**. This implies that most of the respondents agreed on the reliability of e-banking service delivered by sample selected commercial banks in Addis Ababa region.

Table 4.11. Respondents responsiveness SERVQUAL dimension

	N	Mean	Std. Deviation
Response of service through e-banking is very prompt and quick	153	3.88	1.39
My Banks E-Banking facility makes accurate promise about the service delivery	153	3.89	1.29
My Banks E-Banking facility makes accurate promise about the service delivery	153	3.91	1.30
I always get the detail of my account through Electronic device	153	3.63	1.47
Average of Responsiveness Dimension	**153**	**3.82**	**1.36**

(Source: Own Survey, 2021)

Table 4.11 above findings shows that the level of agreements of the respondents towards e-banking service quality dimensions on responsiveness. The dimension's result was ranged from the lowest mean 3.63(I always get the detail of my account through electronic device) to the highest mean 3.91 (my banks e-banking facility makes accurate promise about the service delivery). Thus, the average level of agreements of the respondents on responsiveness dimension scored 3.82 mean with 1.48 of standard deviation; it is within the range of **3.4 to 4.20.** This implies that most of the respondents were agreed on the responsiveness of e-banking service delivered by sample selected commercial banks in Addis Ababa region.

Table 4.8. Respondents assurance SERVQUAL dimension

	N	Mean	Std. Deviation
I feel safe and secure while making transactions through E- banking service	153	3.95	1.21
My e-Banking site does not share my personal information with other sites	153	4.16	1.08
The behavior of E-banking employees instills confidence in customers	153	3.85	1.73
The e-banking employees/help Center have enough knowledge to answer my questions	153	3.87	1.53
Average of Assurance Dimension	**153**	**3.95**	**1.39**

(Source: Own Survey, 2021)

The Table 4.12 above, results shows the level of agreements of the respondents towards e-banking service quality dimension on assurance. The dimension's result was ranged from the lowest mean 3.85 (The behavior of e-banking employees instills confidence in customers) to the highest mean 3.95 (I feel safe and secure while making transactions through e- banking service). Thus, the average level of agreements of the respondents on assurance dimension scored 3.95 mean with 1.39 of standard deviation; it is within the range of **3.4 to 4.20**. This implies that most of the respondents were agreed on the assurance of e-banking service delivered by sample selected commercial banks in Addis Ababa region.

Table 4.93. Respondents empathy SERVQUAL dimension

	N	Mean	Std. Deviation
When I face a problem, Bank shows a sincere interest in solving it	153	3.95	1.21
I get personal attention from bank employee, if need of contact arises	153	4.16	1.08
E-banking help desk operating hours is convenient to me	153	3.75	1.75
The e-banking technical experts are ease to access	153	3.73	1.53
Employees of banks understand my specific needs.	153	3.95	1.10
Average of Empathy Dimension	**153**	**3.90**	**1.33**

(Source: Own Survey, 2021)

The Table 4.13 above, results shows the level of agreements of the respondents towards e-banking service quality dimension on empathy. The dimension's result was ranged from the lowest mean 3.73 (the e-banking technical experts are ease to access) to the highest mean 4.16 (I get personal attention from bank employee, if need of contact arises). Thus, the average level of agreements of the respondents on empathy dimension scored 3.9 mean with1.33 of standard deviation; it is within the range of **3.4 to 4.20**. This implies that most of the respondents were agreed on the empathy of e-banking service delivered by sample selected commercial banks in Addis Ababa region.

Table 4.14. Respondents tangibility SERVQUAL dimension

	N	Mean	Std. Deviation
E-banking service devices (ATM, POS, web site, mobile and agent banking) are easy to use and navigate.	153	3.3647	1.3577
E-banking service has up-to-date equipment and technology	153	3.4320	1.32478
The e-banking physical facilities are visually appealing	153	3.5595	1.22170
E-banking device makes you find valuable information easily.	153	3.3235	1.328
Average of Tangibility Dimension	**153**	**3.42**	**1.275**

(Source: Own Survey, 2021)

The Table 4.14 above, results shows the level of agreements of the respondents towards e-banking service quality dimension on tangibility. The dimension's result was ranged from the lowest mean 3.32 (the e-banking physical facilities are visually appealing) to the highest mean 3.56 (e-banking service has up-to-date equipment and technology). Thus, the average level of agreements of the respondents on tangibility dimension scored 3.42 mean with 1.275 of standard deviation; it is within the range of **3.4 to 4.20**This implies that most of the respondents were averagely agreed on the tangibility dimension of E-banking service delivered by sample selected commercial banks in Addis Ababa region.

4.1.3 Descriptive Statistics for dependent variable

Table 4.105. Respondents response of CSEB

	N	Mean	Std. Deviation
I am satisfied with e-banking service that is provided by the bank	153	3.73	1.28
I'm satisfied with e-banking ability to perform the promised/ordered service dependable and accurately	153	3.87	1.52
I'm satisfied with the willingness of help desks and the very prompt and quick service of e-banking	153	3.89	1.39
I'm satisfied with the knowledge and courtesy of e-banking employees to convey trust and confidence, and e-banking service safety and security	153	3.95	1.22
I'm satisfied with accessibility, sensitivity and effort in understanding of my specific needs by e-banking employees	153	3.89	1.41
I'm satisfied with the physical facilities, modernity, easy to use and visual appearance of e-banking service devices	153	3.9	1.47
Average Customer Satisfaction Dimension	**153**	**3.87**	**1.44**

(Source: Own Survey, 2021)

The Table 4.15 above, findings shows that the level of agreements of the customer satisfaction on e- banking service (Overall result e-banking service quality dimension impact or predictor's

impacts). Thus, the average level of agreements of the respondents‟ customer satisfaction on e-banking service scored 3.87 mean with 1.44 of standard deviation; it is within the range of (3.4 to 4.20). This implies that most of the respondents were **agreed (satisfied)** overall quality e-banking service delivered by sample selected commercial banks in Addis Ababa region.

4.2. Pearson Correlation Analysis

According to Hinkle et al. (2003) the rule of thumb for interpreting the size of a correlation coefficient is as indicated in table 4.19 below.

Table 4.116. Thumb Rule for Interpreting the Size of a Correlation Coefficient

Size of Correlation	Interpretation
.90 to 1.00 (-.90 to -1.00)	Very high positive (negative) correlation
.70 to .90 (-.70 to -.90)	High positive (negative) correlation
.50 to .70 (-.50 to -.70)	Moderate positive(negative) correlation
.30 to .50 (-.30 to -.50)	Low positive (negative) correlation
.00 to .30 (-.00 to -.30)	Little if any correlation

Source: (Hinkle et al., 2003)

Table 4.16 below presents the results of Pearson correlation on the relationship between service quality dimensions (independent variables) and customer satisfaction in e-banking service (Dependent variable).

Table 4.127. Correlations Coefficients

		REL	RES	ASS	EMP	TAN	C USEB
REL	Pearson Correlation	1					
	Sig. (2-tailed)	.000					
	N	153					
RES	Pearson Correlation	.782**	1				
	Sig. (2-tailed)	.000	.000				
	N	153	153				
ASS	Pearson Correlation	.763*	.823**	1			
	Sig. (2-tailed)	.000	.000	.000			
	N	153	153	153			
Emp	Pearson Correlation	.811**	.729**	.782**	1		
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	153	153	153	153		
TAN	Pearson Correlation	.792**	.817**	.734**	.684**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	153	153	153	153	153	
CSEB	Pearson Correlation	.903**	.868**	.913**	.886**	.803**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	153	153	153	153	153	153
**. Correlation is significant at the 0.01 level (2-tailed).							

1

(Source my own survey 2021)

The above table 4.17 shows that all service quality dimensions have averagely positive and significant correlation with e-banking service on customer satisfaction at level P<0.00 and varying degrees of coefficient depending on the type of service quality dimensions. Thus, assurance, reliability, empathy, responsiveness and tangibility has correlation coefficients (0.913, 0.903, 0.886, 0.868 and 0.803) respectively, The results of Pearson correlation shows that, there is positive and strong relationship between service quality dimensions and customer satisfaction listed as reliability, responsiveness, assurance, empathy and tangibility .

4.3. Regression Analysis Results

The multiple regression analysis enables you to assess the strength of relationship between a dependent variable and two or more independent variables. Computing a multiple regression coefficient and regression equation using two or more independent variables is termed multiple regression analysis. The coefficient of determination (represented by R^2) can take calculated/computed value between 0 and +1. It measures the proportion of the variation in a dependent variable that can be explained statistically by the independent variables (Saunders et al., 2009).

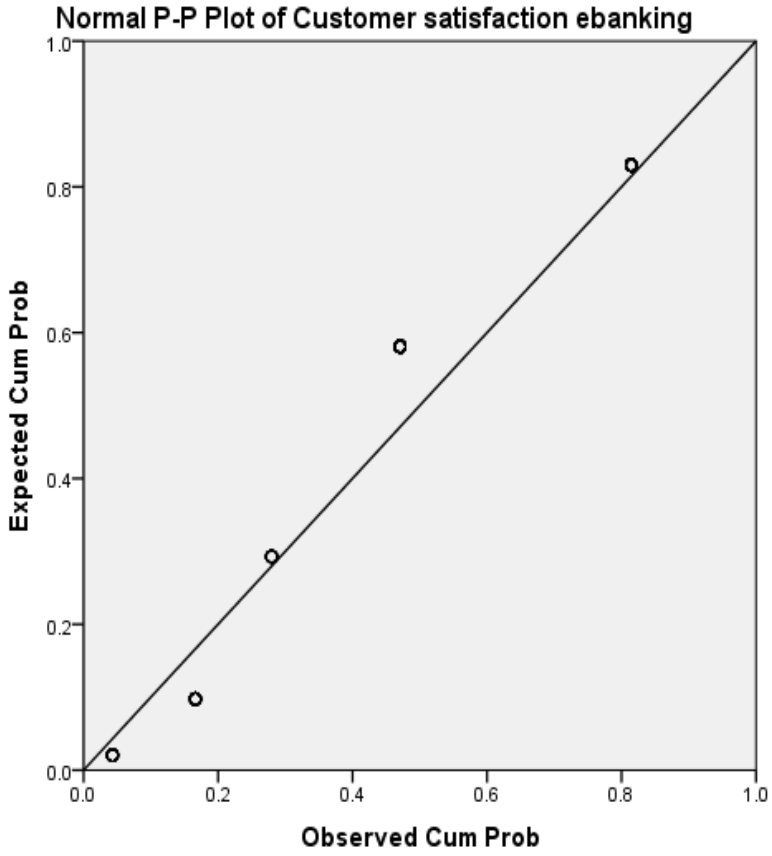
The Multiple regression analysis can also be used to predict the values of a dependent variable given the values of one or more independent variables by computing a regression equation. Before executing multiple regression analysis, the multiple regression assumptions should be considered.

Assumptions of Multiple Regressions

Multiple regressions are one of the fussier of the statistical techniques. It makes a number of assumptions about the data, and it is not all that forgiving if they are violated. The following summary of the some assumptions were taken and tested for this study.

Linearity Test

The relationship between the two variables should be linear. This means that when you look at a scatter plot of scores you should see a straight line (roughly), not a curve. The test results which illustrated on Figure 2 below show that there is a linear between the two variables (i.e. linear relationship between independent variables (service quality dimensions: reliability, responsiveness, assurance, empathy and tangibility and dependent variable (customer satisfaction in e-banking service).



(Source: Own Survey, 2021)

Figure 4.1LinearityTest Result

Multi-co linearity Test

Multi-co linearity occurs when the independent variables are too highly correlated with each other. It can be checked through Tolerance and Variance Inflation Factor (VIF) by Co linearity Statistics. Tolerance is an indicator of how much of the variability of the specified independent is not explained by the other independent variables. Any variable with tolerance below 0.10 or a VIF value above 10 would have a correlation more than 0.90 with other variables, indicative of the multi-co linearity problem (Hairs et, al1995). That mean, the value of tolerance which less than 0.1 or the value VIF that higher than 10 indicate that statistics have multi-co linearity problem.

Therefore, according to table 4.18, the present study reveals that the value of tolerance is more than 0.1 and the value of VIF is less than 10, this indicates the study didn't violated, this indicated that not multi-co linearity problem among explanatory variables as disclosed below table 4.18 multi co linearity test..

Table 4.18.Multicollinearity Test

Model	Co linearity Statistics	
	Tolerance	VIF
(Constant)		
Reliability	.22	4.550
Responsiveness	.099	9.208
Assurance	.283	3.532
Empathy	.086	8.076
Tangibility	.204	4.896

(Source: Own Survey, 2021)

The multiple regression analysis was used in order to examine the causal relationship more closely and to examine the effect of the explanatory variables on the dependent variable due to the existence of significant correlations between reliability, responsiveness, assurance, empathy and tangibility with customer satisfaction in e-banking services. The result was shown in below Tables.

Table 4.1913. Model Summary Result

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	SIG
1	.957[a]	.916	.913	.394	.000

(Source: Own Survey, 2021)

A). Predictors: (Constant), Reliability, Responsiveness, Assurance, Empathy and Tangibility

B). Dependent Variable: CSEB

R-squared is measured the goodness of fit of the explanatory variables in explaining the variations in customers satisfaction in e-banking service measures of explanatory variables (reliability, responsiveness, assurance, empathy and tangibility). As clearly described in Table 4.19 adjusted R-square value for the regression model was 0.913. This indicates the explanatory variables; reliability, responsiveness, assurance, empathy and tangibility in this study explain approximately about 91 percent of the variation in the level of customer satisfaction in e-banking service. The remaining 9 percent of the variation in the level of customer satisfaction of CBE, DB, BOA, AIB and OIB are explained by other variables which are not included in the model. Therefore, e-banking service quality dimensions (reliability, responsiveness, assurance, empathy and tangibility) are good explanatory variables of the satisfaction level of both public and private commercial banks in Ethiopia. The model is statistically significant and good explanatory variables of the customer satisfaction in e-banking in both private and public commercial banks, so that the regression equation has a very high explanatory power.

Table 4. 20. ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	249.567	5	49.913	321.488	.000[b]
	Residual	22.978	148	.155		
	Total	272.545	153			

(Source my own survey 2021)

A). Dependent Variable: Customer satisfaction E-banking

B). Predictors: (Constant), Reliability, Responsiveness, Assurance, Empathy and Tangibility)

As per ANOVA results indicated on above table 4.20 there is a statistical significant correlation between independent variables(service quality dimensions: reliability ,responsiveness, assurance ,empathy and tangibility) to ward dependent variable (customer satisfaction in e-banking service and at 1% significant level due to the sig value 0.000,this indicated that the explanatory variables have significant effect of e-banking service on customer satisfaction. However all electronic banking service quality dimensions have no equal correlation with customer satisfaction degree because the outcome of multiple regression analysis stated that there is variation in the impact of e-banking service quality dimensions on customer satisfaction.

In terms of F-statistics (321.488) at a significant level of 0.000, which means there is a relationship between e-banking service quality dimensions and customer satisfaction among the selected commercial banks (CBE, DB, BOA, AIB and OIB).

4.3.1 Multiple Regression analysis results

Table 4. 21. Regression coefficient analysis results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Co linearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.057	.121		0.474	.636		
	Reliability	.301	.050	.309	6.073	.000	.22	4.550
	Responsiveness	.140	.065	.165	2.171	.031	.099	9.208
	Assurance	.367	.049	.335	7.473	.000	.283	3.532
	Empathy	.221	.067	.270	3.320	.001	.086	8.076
	Tangibility	0.237	.065	.162	3.348	.003	.204	4.896

(Source My own survey 2021)

Dependent Variable: CSEB

From above MLR finding , researcher developed the following multiple regression equation model

Customer satisfaction = f (E-banking five service quality dimensions)

CSEB=0.57 +0.309X2 + 0.165X3 + 0.335X4 + 0.270X5 +0.162X6 + ε

Std.err =(0.21) (0.050) (0.065) (0.049) (0.067) (0.065)

T-values=(0.474) (6.073) (2.171) (7.473) (3.320) (3.348)

R Squared (Adj.=0.913,F-Values=321.488

Significant at 95% level of confidence

Where CSEB = customer satisfaction on e-banking

X_1=Reliability

X_2=Responsiveness

X3= Assurance

X4=Empathy

X5=Tangibility

Table 4.21 showed the standardized beta coefficients. In order to make comparison between different variables, it is important to use the standardized coefficients. "Standardized" means that these values for each of the different variables have been converted to the same scale so that you can compare them. A unit change in the service quality dimensions would produce strong positive effect on e-banking service on customer satisfaction.

Coefficient analysis indicated that the relationship between dependent variable and independent variables. According to Sig. value of X1 (reliability), X2 (responsiveness),X3 (assurance), X4 (empathy) and X5 (tangibility) are statistically significant at 1% level in agreement with the hypothesis. Which means independent variables:(reliability, responsiveness, assurance, empathy and tangibility) have positive relation and significant impact in e-banking service on customer satisfaction in commercial banks in Ethiopia and proposed five service quality dimensions (independent variables) have positive relation and significant impact to e-banking service on customers satisfaction were rated and described as follows.

- Reliability = 0.309, implying that 100% change in reliability leads to 30.9 % positive change in e-banking service on customer satisfaction level.
- Responsiveness) =0.165, implying that 100% change in responsiveness leads to 16.5% positive change in e-banking service on customer satisfaction level.
- Assurance) = 0.335,implying that 100% change in assurance leads to 33.5% positive change in e-banking service on customer satisfaction level,
- Empathy=0.270, implying that 100% change in empathy leads to 27 % positive change in e-banking service on customer satisfaction.
- Tangibility) =0.162 ,implying 100% change in tangibility leads to 16.2 % positive change in e-banking service on customer satisfaction

All explanatory variables have a positive relationship and significant on e-banking service on customer satisfaction. The findings are also coherence with other research findings such as (Junetal,1999;Jannatul,2009;Parsurmanetal,1988;Yang,JunandPeterson,2004,LuiAmett,2000 and Mesfin;2018) found that assurance and reliability provide higher degree of satisfaction on e-banking service

Statement of hypothesis

Ha1: Reliability has a positive significant effect on customer satisfaction toward e-banking

Ha2: Responsiveness has a positive significant effect on customer satisfaction towards electronic banking.

Ha3: Assurance has a positive significant effect on customer satisfaction towards e- banking.

Ha4: Empathy has a positive significant effect on customer satisfaction towards e- banking.

Ha5: Tangibility has a positive significant effect on customer satisfaction towards electronic banking.

The coefficient sig value of X1, X2, X3, X4 and X5 (reliability, responsiveness assurance empathy and tangibility respectively) are 0.000 at 5% significant level in which these independent variables have significant and positive relation with dependent variable (customer

satisfaction on e-banking) which leads to reject the null hypothesis and as result alternative hypothesis are accepted because all service quality dimensions (explanatory variables have sig value or p-value less than 0.05).

Effect of E-banking Service on Customer Satisfaction

The main objective of this study was to examine the effect of E-banking service quality on customer satisfaction. According to the multiple regression analysis results, each specific objectives of the study is successfully achieved. The results of service quality dimensions in e-banking service on customer satisfaction and relation to the previous research findings were described as follows:

Effect of Reliability in E-banking Service on Customer Satisfaction

The result of this study indicates that reliability (β=0.309, $p<0.01$) has a positive relation and significant effect e-banking service on customer satisfaction. This finding is supported by Hitesh (2015), found that reliability has a positive and significant effect on customer satisfaction. It is also supported by other authors (Surafel, 2016; Simon, 2016 and Gezahegn, 2015).

Effect of Responsiveness in E-banking Service on Customer Satisfaction

The finding of this study also indicates that responsiveness (β=0.165, $p<0.01$), has a positive relation and significant effect e-banking service on customer satisfaction. This finding is also supported by (Surafel, 2016 and Gezahegn, 2015).

Effect of Assurance in E-banking Service on Customer Satisfaction

Furthermore, the result of this study also indicates that assurance (β=0.335, $p<0.01$) has a positive relation and significant effect e-banking service on customer satisfaction. This finding is consistent with the study of Amelework (2016) that find out assurance has high positive and significant effect e-banking service on customer satisfaction.

Effect of Empathy in E-banking service on Customer Satisfaction

The finding this study indicates that empathy (β=0.270, $p<0.01$) has positive relation and significant effect e-banking service on customer satisfaction. This finding is also supported by Simon (2016) found that empathy has positive and significant effect on customer satisfaction.

Effect of Tangibility in E-banking service on Customer Satisfaction

The finding further indicates that tangibility (β=0.162, $p<0.01$) has relatively less positive relation and significant effect e-banking service on customer satisfaction. This finding is also supported by Simon (2016), found that tangibility has positive and significant effect on customer satisfaction but its coefficients is relatively low among the rest service quality dimensions.

Interview Response

Interview was conducted in four private commercial banks and one state owned or public commercial banks branches in Addis Ababa region, this interview was delivered for only five branch managers and five customer service manager of e-banking department of the respective selected commercial banks branches in Addis Ababa were engaged in the interview session. The interview was addressed the demographic character (age, occupation, and educational level) which was triangulate and interlinked relation with the customers response on questioners and different question related to strategy to improve e-banking service ,customer satisfaction and feelings toward e-banking service, and associated key e-banking challenges were delivered to response .

Concerning to the bank intention was to improve and expand modern technology centered e-banking throughout the country by designing and applying operational and service excellence as a strategy which is still exercised that is why the accessibility and availability 24/7. Currently CBE has successfully upgraded its core banking system from its previous version T24 R10 to the new version T24 R17. The new and updated system would enable the bank to enhance its reputation and operational and also invited interested eligible and qualified bidders to provide information to prepare a Request for Proposal (RFP) for the procurement of Consultancy service for the development and follow up of a five year information technology roadmap.

Additionally e- banking service customers are moderately satisfied in terms of the reliability and speed delivery responsiveness of the bank timely but there is lack of well-organized awareness creation in using the banking technology, that targeted youngsters and literate who have the exposure of such technology easily via various ways to enhance the general public understanding towards e-banking service and meets its vision to become world class commercial bank as 2025. Problems faced banks and e-banking customers frequently like weak network infrastructure, less awareness of the society and power interruption. Customer satisfaction is depending on quality service, reliable and consistent service, in this case customer satisfaction through e-banking service is moderately satisfied due to frequently challenges are faced customer satisfaction through e-banking service because lack of special attention on quality service, fluctuation of network and interruption of power supply, for this reason customers are not get service as expected as well as e-banking service are not available 24/7.The bank is always on the spot of solving those challenges by assigning resolution team for immediate problem handling matter but still the bank expects a lot from the government in case of infrastructural development for alleviating network failure and power interruption.

In case of DB, in demographic profile perspective age, occupation and educational status most of our customers are youngsters, salaried, business persons and literate who are easily access e-banking service as well as new e-business information.

Dashen bank is pioneer of introducing POS and being the second in ATM next to CBE, the intention was adopting world class banking technology and introducing to Ethiopian market with a mission of creating cashless society in applying the strategy of service enhancement, deposit mobilization and service excellence through differentiation aspect of being the first in adopting and introducing modern technology such as golden and green American express card for the purpose of foreign currency increment in the country and Amole is an Omni channel payment and commerce platform provided by Dashen Bank to its esteemed customers.

The channel enables the customer to stay on top of their account 24 x 7 without being limited by time and geographic location and currently our Amole wallet users above 2.5 million. We strongly believe that the banking technology has given more satisfaction and reduced the visit of branches now and the customer gets it accessibly and available 24/7 (24 hours in a day and 7

days in a week).Standardized service and quicker. Customer satisfaction is depending on quality service, reliable and consistent service, in this case customer satisfaction through e-banking service is moderately satisfied due to problems are faced customer satisfaction through e-banking service because lack of intense attention to quality service, fluctuation of network and interruption of power supply, for this reason customers are not get service as expected as well as e-banking service are not available 24/7. However various reasons mostly, such a network failure and power interruption customers have faced tragedy because we couldn't deliver the service as exactly as we promised. With respect to awareness creation the bank has been done a little due to less focus on promotional aspect of the technology to the general public however market survey assessment has been conducted formally in order to enhance quality e-banking service based on the requirements of the bank increasing its accessibility and availability of e-banking service in Addis Ababa, however electronic banking customers frequently faced challenges such as infrastructural barrier in network fluctuation and power interruption due to poor Ethiopian Tel communication technical response, lack of technical experts, lack consistent and reliable power supply , so that we are on the process to bring resistance and solve the barrier ,therefore these challenges are beyond our capacity, which needs government intervention to arrange well developed good network infrastructures and reliable power supply.

In case of OIB and AIB, demographic characteristics age, occupation and education level although pointing out the figure is difficult electronic banking system users are youngsters, business person, salaried and literate. The bank intention was modernizing banking service and delivery channel expansion via product development, customer adaptability .OIB is undertaking a universal commercial banking services such as deposit mobilization, lending of money, remittance service, and international banking services and interest free banking. The bank has launched electronic banking outputs such as Card banking known as Oro-Card (AT M). The bank has core competencies in e- banking IT specialist of internal manpower which leads the bank to have competitive advantage over competitors by providing quality and reliable electronic banking service, however expected focus are not given to awareness creation in using e-banking service to the general public so that customers are not informed well and understood. In respect to the relationship of e-banking and customer satisfaction, the bank serves customers in giving e-banking service timely like faster response to card request and internalize and address the customers' compliance.

Customer satisfaction is depending on quality service, reliable and consistent service, in this case customer satisfaction through e-banking service is moderately satisfied due to problems are faced customer satisfaction through e-banking service because lack of attention to quality service, fluctuation of network and interruption of power supply, for this reason customers are not get service as expected as well as e-banking service are not available 24/7. In perspective of opportunity of e- banking there are literacy rate increasing, population increment, technological and economic development, however e-banking customers faced challenges like infrastructural problems, less awareness of banking technology and power interruption. Therefore, the bank is expected from the government in order to improve in enhancing infrastructural development (network and power supply).

In case of BOA, In relation to demographic package (age, occupation and education status) the customers are majorly business man/women, salaried, literate and youngsters. The bank intention to increase customer and expansion e-banking technology throughout the country with quality and unique banking strategy and customer handling by setting the strategies of service excellence, cost leadership and applying blue ocean strategy that was designed and prepared by consulting firm which made the bank acquire world class technological statues and set up relatively and currently BOA proudly introduces the new self-service machine that hosts the service of branch banking through our excellent and friendly virtual tellers from the comfort of any ITM corner. Experience, virtual banking from Bank of Abyssinia for an instant, easy and convenient banking at your suitable locations.

So that we kept the competitive advantage better than our competitors in providing e-banking service in using the marketing department for the purpose of awareness creation through one to one strategy due to the bank customers are some target groups. In terms of satisfying customers we have well organized structure of reliability of the e-banking service; security issue of ATM machine has video camera for controlling mechanism and serving customers to the place where they are for further service. Customer satisfaction is depending on quality service, reliable and consistent service, in this case customer satisfaction on e-banking service is moderately satisfied due to problems are faced customer service through e-banking service because lack of attention to quality service, fluctuation of network and interruption of power supply, for this reason customers are not get service as expected as well as e-banking service are not available 24/7.

Although the bank are facing challenges they are solving it through providing training to man power, discussion with e-banking supervisors, regulatory bodies, increasing customer benefit packages and considering the IT professionalisms but they pointed out that the government shall be proactive in policy, procedure, law formulation, enhancement of the technological aspect of Tel communication service in related to e- banking service like improvement of network infrastructure and power supply which are have been fluctuating and interrupting our service frequently and disappointed our customers .

CHAPTER FIVE

5. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

This chapter is the last chapter which presents summary of findings, conclusion and recommendation of the study. Then, conclusion and recommendations were derived from the discussion and findings. Then, as a result of limitation of the study, the researcher forwarded suggestion for future and further studies.

5.1. Summary of Findings

The main objective of the study is to examine the influence of e-banking service quality on customer satisfaction: The case of commercial banks in Ethiopia at Addis Ababa region. The study adopted exploratory research and descriptive research design with quantitative research approaches. The structured questionnaires were distributed to 153 active e-banking service user customers of five commercial banks and branches in Addis Ababa (one public and four private commercial banks in Addis Ababa) and interview distributed to the two of e-banking service manger from each five banks(ten interviewee were participated). Then, analysis was made by using SPSS V.20 and output carried out through descriptive statistics; Pearson correlation, analysis of variance and multiple regression analysis.

The major findings of the study were summarized as follows; descriptive analysis results indicated that the majority of current e-banking users are youth age group of 39.9%(18 up to 30), and 28.8%(31-40), regarding occupationally business men/women are 49.7% and salaried 24.2% majority users are active participant in using e-banking service, regarding educational status of the respondents above 85% were (48.3% BA degree ,28.1% post graduate degree and 12.4 PhD holder and this indicated that education status of respondents were predominantly degree holders and above.

Majority of customers (respondents) using card banking e-banking service mainly for cash withdrawal and other payment, which consists (53.6%) and remaining 17.6% and 28.1 were using for account to account transfer and bill payment respectively, which shows that still society predominantly depending on physical cash in their daily business transactions.

Majority of the customers experience in using e-banking service rated as 1-2 years (42.5%) ,2-3 year (21.6%), 3-4 years (14.4%) 4-5 year (12.4%) and above 5 years (9.2%) ,which indicated that more customers have no more experience in using e-banking service and new service for customers.

Regarding the product of the digital banking or e-banking service 56.2% of e-banking service user was prominently use ATM service and remaining 28.1%, 5.2% and 10.5% were using MB, IB and AB respectively.

In the descriptive statistics analysis findings indicated that average mean of respondent agreement on the statement of the independent variables (service quality dimensions): reliability, responsiveness, assurance, empathy, tangibility and dependent variables (customer satisfaction in e-banking service) were scored 3.89, 3.82, 3.95, 3.90, and 3.42 and3.87 respectively.

The Pearson correlation analysis result show correlation coefficient and significant level of assurance ($r=0.913$ and $P<0.01$), reliability ($r=0.903$ and $P<0.01$), empathy ($r=0.886$ and $P<0.01$) responsiveness ($r=0.868$ and $P<0.01$) and tangibility ($r=0.803$ and $P<0.01$), this indicates that independent variables have high positive correlation and statistically significant impacts on dependent variable (e-banking service on customer satisfaction).

The multiple regression analysis results show, reliability ($\beta=0.309$, $p<0.01$), responsiveness ($\beta=0.165$, $p<0.01$), assurance ($\beta=0.335$, $p<0.01$), empathy ($\beta=0.270$, $p<0.01$), and tangibility ($\beta=0.162$ $p<0.01$), this indicates that proposed five service quality dimensions have positive relation and significant impact on customer satisfaction in e-banking service.

Then, the model summary results reported $R^2=0.916$ and ANOVA test show the model significance at $P<0.005$ level, this shows that 91.6% variation dependent variable explained by independent variables and remaining 8.4% may be explained by other variables.

Multi-co linearity tests results indicated by tolerance and VIF assured that independent variables no correlated with each other rather high correlated with dependent variable .Linearity test shows that independent variables have linear association with dependent variable.

Service quality dimension (independent variables) have positive relation and significant impact to ward e-banking service (dependent variable) which leads to reject null hypothesis and leads to accept alternative hypothesis.

5.2. Conclusion

This research study has assessed and examined the impact of electronic banking service quality on customer satisfaction in selected commercial banks in Addis Ababa and came up with a number of findings which leads to put the subsequent conclusion:

In demographic profile majority of currently active e-banking service users are youth between the age group 68.7% (18-40), occupationally salaried are 24.2% ,business men/women 49.7% and,educational status 88.8% are BA degree holder and above, this indicated that education status of respondents were predominantly above degree holders and demographic characteristics have positive and significant impact on customer satisfaction in electronic banking service.

All five proposed service quality dimensions: reliability, assurance, responsiveness , empathy and tangibility have significant impact to improve customer satisfaction in electronic banking service because it has an indispensable contribution on the improvement of customer satisfaction but different challenges could be an obstacle to provide quality electronic banking services to customers in commercial banks in Ethiopia (Addis Ababa region).

Service quality dimensions (independent variables and customers satisfaction in e-banking (dependent variables) have positive relation and statistically significant on e-banking service on customer satisfaction.

Electronic banking services in commercial banks in Ethiopia are averagely satisfies able level, however, significant deviations and variation tendency on e-banking quality service due to banks no more intense attention on service quality dimensions and different challenge faced e-banking user customers in using electronic banking service.

5.3. Recommendations

According to the findings and conclusions of the study, the researcher forwards the following recommendations for the concerning organization:

This study has important implication that all level managers of commercial banks in Ethiopia should give special attention to the service quality dimensions of reliability, responsiveness, assurance, empathy and tangibility in order to maintain sustainable and consistent quality electronic banking services because this service quality dimensions have play significant role on customer satisfaction on e-banking service.

Commercial banks should improve customer satisfaction on tangibility dimension, it is recommended should do awareness creation for the users with the aim of building friendliness and familiarizing them with physical facilities, modernity, visual appearance of E- banking devices and to make ease to use these technologies.

Commercial banks should arrange automated feedback system e-banking user customers for both online banking and card banking customers in order examine electronic banking service quality level and customers satisfaction.

Banks should corporately work with Ethiopia telecom, Ethiopia-electric corporation and NBE to improve electronic banking services quality, due to e-banking service quality highly affected weak network infrastructure, power interruption and restriction amount on daily limit either to transfer or cash withdrawal by using e-banking service, these consequences leads negative impact e-banking service quality on customers satisfaction.

5.4. Suggestions for Future Study

Based on the limitations of this study, the following suggestions are recommended for future studies

I recommend if the future research can be added other service quality dimensions to generalize the results of e-banking service quality impact on customer satisfaction.

I recommend if the future research can use probabilistic sampling techniques to generate the results based on better representative sample survey of whole population by providing equal chance for respondents.

I recommend if the future researcher can be mainly focuses on basic service quality dimensions and challenges associated e-banking service.

I recommend if future researcher can be include in sample out of Addis Ababa regions to examine and assess effect of service quality, network infrastructure and power supply on e-banking service.

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Addis ABABA UNIVERSITY

Accounting and Finance

Appendix-A

Questioners to Electronic banking customers

Graduate Studies

Researcher:-SiyumBabena, Address**: - siyumba23266@gmail.com**

Mobile number**: -** 09-30-35-81-82

Research Title: - Impact of electronic banking service quality on customer satisfaction in Addis Ababa (the case of selected commercial banks in Addis Ababa)

Research Title: - Impact of electronic banking service quality on customer satisfaction in Addis Ababa (the case of selected commercial banks in Addis Ababa)

Interviews to be responded by Branch managers and E-banking service managers of selected five commercial banks in Addis Ababa (four private commercial banks and one public commercial bank in Addis Ababa)

Dear respondents

I am currently pursuing my Postgraduate Degree in Accounting and Finance in Addis Ababa University, as partial fulfillment towards the completion of my post graduate degree. Hence, I kindly request you to respond for this questioners' while assuring you that the information that you provide will be treated with confidentiality and shall only be used for the purpose of this academic research. I would also like to remind you that your fair and impartial feedback will make this study a very successful. This questioners were designed for only E-banking service using customers

Part I: Demographic information

Please tick **(√)** mark in the box which expresses your self

1. Gender male ☐ female ☐
2. Age 18-30 ☐ 31-40 ☐ 41-50 ☐ 51-60 ☐

3. Education level.

Primary School ☐

Diploma Bachelor Degree ☐

Master Doctorate/higher ☐

4. Occupation

Unemployed ☐

Student Salaried ☐

Business man/women ☐

Pensioner Other……

5. What purpose you frequently use electronic banking service or Digital channel banking services?

Cash withdrawal ☐ Account to account transfer ☐

Bill payment ☐

Other please, specify……

6. How long have you been the customer Electronic banking user of your bank?

☐ 3-4years

☐ 1-2years 4-5years ☐

☐ 2-3years above 5years ☐

7. Which type of Electronic banking service delivery do you use frequently? You can also tick more than one if you use more methods.

ATM ☐ Mobile Banking ☐

Agent banking ☐ Internet Banking ☐

Other please, specify……

Part II **Part II: E-banking Service Quality**

Listed below are a series of statements that represent E-banking service quality with respect to your own feeling, please indicate the degree of your agreement or disagreement with each statement by putting a tick mark *(√)* on one of the five alternatives. Responses are measured on 5- point scales with the following verbal anchors: Strongly Disagree (1), Disagree (2), Moderately Agree (3), Agree (4) and Strongly Agree (5).

	ITEM	**SCALE**				
	Service Quality Dimensions	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
		1	**2**	**3**	**4**	**5**
1	**RELIABILITY**					
1.1	E-banking is reliable					
1.2	E-banking system performs the service right the first time.					
1.3	The E-Banking system not fails to deliver what promised/ordered					
1.4	I prefer using E-banking instead of visiting branch for making my transaction					
1.5	E-banking delivers accurate transaction services as I desired					
2	**RESPONSIVENESS**					
2.1	Response of service through e-banking is very promptand Quick					
2.2	My Banks E-Banking facility makes accurate promise about the service delivery					

2.3	The E-banking employees/Help desks are always willing to help me.					
2.4	I always get the detail of my account through Electronic device					
3	**Assurance**					
3.1	I feel safe and secure while making transactions through E- banking service					
3.2	My E-Banking site does not share my personal information with other sites					
3.3	The behavior of E-banking employees instills confidence in customers					
3.4	The E-banking employees/Help Center have enough knowledge to answer my questions					
4	**EMPATHY**					
4.1	When I face a problem, Bank shows a sincere interest in solving It					
4.2	I get personal attention from bank employee, if need of contact arises					
4.3	E-banking Help desk operating hours is convenient to me					
4.4	The E- banking technical experts are ease to access					
4.5	Employees of Bank understand my specific needs.					
5	**TANGIBLES**					
5.1	E-banking service devices (ATM, POS, Web site, mobile and Agent banking) are easy to use and navigate.					
5.2	E-banking service has up-to-date					

	equipment & technology					
5.3	The E-banking physical facilities are visually appealing					
5.4	E-banking device makes you find valuable information easily.					

PART- III: Customer Satisfaction

Listed below are a series of statements that represent whether you are satisfied or not with E-banking services provided by the bank with respect to your own feeling, please indicate the degree of your agreement or disagreement with each statement by putting a tick mark ***(√)*** on one of the five alternatives. Responses are measured on 5- point scales with the following verbal anchors: Strongly Disagree (1), Disagree (2), Moderately Agree (3), Agree (4) and Strongly Agree (5).

	CUSTOMER SATSFACTION	1	2	3	4	5
1	I am satisfied with E-banking service that is provided by the Bank					
2	I'm satisfied with E-banking ability to perform the promised/ordered service dependable and accurately					
3	I'm satisfied with the willingness of Help desks and the very prompt and quick service of E-banking					
4	I'm satisfied with the knowledge and courtesy of E-banking employees to convey trust and confidence, and E-banking service safety and security					
5	I'm satisfied with accessibility, sensitivity and effort in understanding of my specific needs by E-banking employees					
6	I'm satisfied with the physical facilities, modernity, easy to use and visual appearance of E-banking service devices					

Appendix-B

INTERVIEW

Research Title: - Impact of electronic banking service quality on customer satisfaction in Addis Ababa (the case of selected commercial banks in Addis Ababa)

Interviews to be responded by Branch managers and E-banking service managers of selected five commercial banks in Addis Ababa (four private commercial banks and one public commercial bank in Addis Ababa)

Dear respondents

I am currently pursuing my masters Degree in Accounting and Finance in Addis Ababa University, as partial fulfillment towards the completion of my post graduate degree. Hence, I kindly request you to respond for this interviews' while assuring you that the information that you provide will be treated with confidentiality and shall only be used for the purpose of this academic research. I would also like to remind you that your fair and impartial feedback will make this study a very successful.

These questions are designed for branches managers and electronic banking service mangers of the five selected commercial banks in Addis Ababa. (Four private commercial banks and Public commercial bank):

Q1. When you see the currently customers of electronic banking what can you say about age, gender, occupation and educational status of the customers?

Q2. Have you any unique strategies to improve electronic banking services quality that influence customer satisfaction.

Q3. How do you explain the relationship of electron banking service you provide and your customer's satisfaction level?

Q4. What are the customers' expectations and feeling in relation electronic banking service?

Q5.Do you think e-banking is providing the service as expected and available 24/7 for customers?

Q6. What are the key problems in e-banking service to satisfy your customers?

Thank you so Much