



ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
SCHOOL OF COMMERCE DEPARTMENT OF MARKETING MANAGEMENT
GRADUATE PROGRAM UNIT

**THE EFFECT OF E- BANKING ATTRIBUTES ON CUSTOMER
SATISFACTION: THE CASE OF COMMERCIAL BANK OF ETHIOPIA**

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March, 2019

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**A Thesis Submitted to the School of Graduate Studies of Addis Ababa
University School of Commerce in Partial Fulfillment for the Award of
Masters of Arts degree in Marketing Management**

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I, Mekides Adugna, hereby declare that this research paper entitled “**the effect of e banking attributes on customer satisfaction ; the case of Commercial Bank of Ethiopia**” is my original work and has not been used by others for any other requirements in any other university and all sources of information in the study have been appropriately acknowledged.

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This is to certify that this study on the topic entitled “**the effect of e banking attributes on customer satisfaction: The case of Commercial Bank of Ethiopia**” is a bona fide work of Mekides Adugna who carried out under my guidance/supervision and this work is original in nature and is suitable for submission for the award of masters of Marketing Management.

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Date.....

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Acronyms

ANOVA	Analysis of Variance
ATM	Automated Teller Machine
EFT	Electronic Fund Transfer
ICT	Information and Communication Technology
POS	Point of Sale
SERVQUAL	Service Quality
SMS	Short Message Service
TA	Technology Associate
TOE	Technology- Organization Environment

Abstracts

The purpose of this study is to investigate effect of e-banking attributes on customer satisfaction, its relation with demographic characteristics, and major challenges in e-banking activities to satisfy the customers of commercial bank of Ethiopia in Addis Ababa. The study used quantitative research approach by employed multiple linear regressions models for the Customers Satisfaction on Electronic Banking and regression were used to see the relationship between independent variables reliability, transaction efficiency, service security, ease of use and service performance with satisfaction of e-banking users. Primary data were collected by using 5-point Likert-scale questionnaire. From 384 questionnaires, 377 of them were properly filled and returned. The empirical result shows that service quality dimensions; reliability, service security and ease of use have strong influence on e-banking user's satisfaction level. Thus, management bodies of commercial banks should strive to strengthen these service dimensions.

Key words: Reliability, transaction efficiency, service security, ease of use, performance, E-banking and customer satisfaction.

CHAPTER ONE

1. INTRODUCTION

1.1. Back ground of the study

Banks play an important function in the economy of any country. They are the main intermediaries between those with excess money and those individuals and business with viable projects but requiring money for their investment. Banks have at least the following functions: lending money, depositing money, transferring money locally or a broad and working as paying agent (Tefere, 2013).

In the face of rapid expansion of electronic payment systems throughout the world, the Ethiopian financial sector cannot remain an exception in expanding the use of the system (Garedachew, 2010). E-banking has enabled banking institutions to compete more effectively in the global environment by extending their services beyond the restriction of time and space (Turban, 2008)

Nowadays, people are so busy in their work lives, that they do not have time to go to the bank for conducting their banking transactions. Thus, banks provide e-banking facility to their customers as an added advantage. These services enable people to carry out their banking transactions such as see their balances, pay bills, view records of transactions, transfer money to linked accounts with in the same bank, transfer money to especially selected unlinked accounts, check interest in accounts, send money overseas, etc.

E-banking is one of the most recent channels of distribution used in the financial services organizations. This method was established in the mid-1990s, there after becoming more important (Allen L & Rai, 1996). It has been widely used in developed countries. However, in developing economies, the spread is much limited. As suggested by Classens et al (2002), developing countries in general have an advantage as they can learn from the experience of advanced economies. Today, almost all banks in Ethiopia are adopting electronic banking as a means of enhancing service quality of banking. It also increases customer satisfaction in banking services (Shittu, 2010).

1.2. Statement of the problem

Banks in Ethiopia are involved in tough competition to attract customers by delivering various services. It is better for customers to have broad choices to select best bank for them to satisfy their needs. For banks as well, they have to find ways to satisfy customers and keep competitive advantages over other banks. In pursuit of round the clock customer service and keep abreast with the developing global banking technology, almost all banks in Ethiopia are fast moving toward launching new technology based products and services such as internet banking, mobile banking, ATM, POS, etc.

Commercial Bank of Ethiopia launched e-banking services as part of ensuring services excellence by reducing waiting time, errors, costs and improve customer satisfaction. However, despite the importance of e-banking in bringing customer satisfaction, limited studies are available in Ethiopia both in terms of number and scope. Therefore, more studies are still required to understand the effect of e-banking on customer satisfaction in Ethiopia.

(Assefa, 2013) conducted a study on the impact of e-banking on customer satisfaction in two branches of private banks in Gondar City. However, the study followed qualitative approach to analyzing the data, which is difficult for generalization. In addition to this, the study considered ATM as the only-banking channel because other e-banking channels were not adopted during his study in the city.

(Bultum, 2014) also conducted study on the factors that affect adoption of e-banking in the Ethiopian banking industry. This study has also its limitation in that sense that the study was entirely focused on factors that affect adoption of e-banking. However, satisfaction of customers towards e-banking required to be investigated to understand the effect of e-banking in improving customer experience in Ethiopian banking industry. (Bultum, 2014)

It is therefore important to identify the effect of e-banking on the level of customer satisfaction. This study was intended to fill the gaps of the above studies by analyzing the effect of e-banking attributes on the level of customer satisfaction. Thus, this study explored different e-banking platforms, which includes ATM, POS, mobile banking and internet banking. Overall, the study was designed to examine the effects of e-banking attributes on the level of customer satisfaction at the Commercial Bank of Ethiopia.

1.3. Research questions

- How does service reliability of e-banking affect customer satisfaction?
- How does transaction efficiency of e-banking affect customer satisfaction?
- How does performance of e-banking affect customer satisfaction?
- How does ease of use of e-banking affect customer satisfaction?
- How does service security of e-banking affect customer satisfaction?

1.4. Objectives of the study

1.4.1. General objectives

The general objective of the study was to explore the effect of e-banking attributes on customer satisfaction in Commercial Bank of Ethiopia

1.4.2. Specific objectives

- To examine the effect of service reliability of e-banking on customer satisfaction;
- To find out the influence of transaction efficiency of e-banking on customer satisfaction;
- To determine the effect of service security of e-banking on customer satisfaction;
- To determine the effect of service performance of e-banking on customer satisfaction;
- To examine the effect of ease of usage of e-banking on customer satisfaction.

1.5. Scope and limitation of the study

1.5.1. Scope of the study

First, the study was confined only to customers' perspectives e-banking services and only considers reliability, transaction efficiency, service security, ease of use and performance e-banking service quality considers. And only internet banking, ATM, POS and Mobile banking of Commercial Bank of Ethiopia. The study was also focused on six selected branches of CBE

(Aratkilo, Selassie, Genete Tsige, Tewdros Square, Birehanena Selam and Addisu Gebeya) that are located in the North Addis district of Commercial Bank of Ethiopia.

1.5.2. Limitation of the study

Ccustomers who have saving account and waiting for e-banking services at the time of data collection were not taken as respondents. For instance like customers who send and receive local transfers were not included in the study. The second limitation of the study were that it only considers customer perspectives of e-banking and it does not taken into consideration the perspective of employees and other stakeholders on the technology. Finally, only security, performance, reliability, transaction efficiency and ease of usage of e-banking service dimensions variables will be included to analyze their effect on customer satisfaction.

1.5.3. Significance of the study

The research will contribute as a reference to other researchers who want to conduct further study on the concept of the effect of e-banking attributes on customer satisfaction. In addition, it will help Commercial Bank of Ethiopia to get insight on the effect of the e-banking services that the Bank provides on ensuring customer satisfaction. Findings of this of study will be useful also for students and academicians as an input for embarking up on similar researches in the future and also the research findings will be serving as literature.

1.6. Organization of the research report

The study was organized in to five chapters. These are introduction, review of related literatures, results and discussions and summary, conclusions and recommendations.

The first chapter provides a general introduction of the study including background of the study, statement of the problem, research questions, and objectives of the study, scope and limitations of the study, organizations of the research report and definition of key terms.

Chapter two covers the literature relevant to the study. It includes concepts and theoretical framework, empirical literatures and hypothesis and conceptual framework.

Chapter three elaborates research design and methodology: the type and design of the study. It includes research method sampling techniques, data collection method and method of data analysis that will be used in the study.

Chapter four summarizes the findings of the study and discusses them in detail.

Finally, chapter five comprises of four sections which include summary findings, conclusions, limitations of the study and recommendation.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Theoretical literature review

Introduction

The research problem focused on electronic banking and 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 explaining 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.

2.1.1. Definition of E-Banking

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

(Pikkarainen *et al*, 2004) defines electronic banking as an "internet portal, by which customers can use different kinds of banking services ranging from bill payment to making investments". Apart from withdrawals of cash, electronic banking gives customers access to distinctive sorts of banking transaction just by the snap of a mouse (De Young, 2001). In fact the use of electronic banking as an option for the dissemination of financial institutions has turned into a competitive

tool rather than only an approach to accomplish competitive advantage of preference with the appearance of globalization and fiercer rivalry (Flavián *et al*, 2004; Gan and Clemes, 2006).

(Timothy, 2012) electronic 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. (Ahasanul, 2009) Electronic banking is modern delivery channel of banking services.

E-banking has a variety of definitions all of which explains similar concept. The following section shows some of these definitions.

E-banking is a form of banking service where funds are transferred through an exchange of electronic signal between financial institutions, rather than exchange of cash, checks, or other negotiable instruments (Kamrul, 2009).

E-banking also known as electronic funds transfer (EFT). It is simply the use of electronic means to transfer funds directly from one account to another rather than by check or cash (Malak, 2007). The term e-banking often refers to online/internet banking which is the use of the internet as a remote delivery channel for banking services (Furs t& Nolle, 2002, p.5).

E-banking is the use of a computer to retrieve and process banking data (statements, transaction details, etc.) and to initiate transactions (payments, transfers, requests for services, etc.) directly with a bank or with other financial service provider remotely via a telecommunications network. It should be noted that electronic banking is a bigger platform than just banking via the internet.

E-banking can be also defined as a variety of platforms such as internet banking or (online banking), TV-based banking, mobile phone banking, and PC (personal computer)

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 (Alagheband, 2006).

2.1.2. Forms of E-Banking

Automated Teller Machines ATM

(Rose, 1999) as cited in Abor, describes ATMs as follows: “an ATM combines a computer terminal, database system and cash vault in one unit, permitting customers to enter the bank’s book keeping system with a plastic card containing a PIN or by punching a special code number into the computer terminal linked to the bank’s computerized records 24 hours a day”. It offers a great deal of banking services to clients.

They are mostly situated outside the banks. They were introduced initially to serve as cash dispensing machines. 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 electronic banking device, to gain competitive advantage. The combination of automation and human tellers gives more productivity for the bank during banking hours. It additionally spares time in customer service delivery as customers do not queue in banking halls, and along these lines can invest such time spared into other productive activities.

ATMs are efficient method for yielding higher profitability as they accomplish higher efficiency per duration of time than human tellers (a normal of around 6,400 exchanges for every month for ATMs contrasted with 4,300 for human tellers (Rose, 1999). Furthermore, ATMs ability to work after banking hours provide continue productivity.

Telephone Banking

"Telephone Banking (Tele banking) can be considered as a form of remote or virtual banking, which is essentially the delivery of branch financial services via telecommunication devices where the bank customers can perform retail banking transactions by dialing a touch-tone telephone or mobile communication unit, which is connected to an automated system of the bank by utilizing Automated Voice Response (AVR) technology” (Balachandher *et al*, 2001).

As indicated by (Leow, 1999), telephone banking offers several advantages for customers and banks. It provides convenience, easy access and customers also saves time. On the part of the banks telephone-banking services are less costly than those of branch based services. It has almost all the benefits of ATMs, except that it lacks the productivity generated from cash dispensing by the ATMs. Customers get access to banking services at their various offices and homes.

Personal Computer Banking

Personal Computer Banking is a sort of service which provides the bank's clients to access their banking data through a restrictive system, through software installed on their personal PC. By having access the customer can perform a great deal of banking services. The significance of PC proficiency has brought about expanding the utilization of PCs. This positively bolsters the development of PC banking. Customers have access banking services even at their homes and offices (Abor, 2005).

Internet banking

According to (Essinger, 1999) 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”. To the Federal Reserve Board of Chicago’s Office of the Controller of the Currency (OCC) Internet Banking Handbook (2001), Internet banking is described as “the provision of traditional (banking) services over the internet”. 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.

POS

Point of sale also sometimes referred to as point of purchase (POP) checkout is the location where a transaction occurs. A “cheakout” 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 sales person accessible interface. The same system allows the creation and printing of the receipt (Shittu, 2010).

Mobile Banking

Mobile banking (also known as M-Banking) is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA). The earliest mobile banking services were offered over SMS, a 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. This aspect of mobile commerce is also popular in countries where banks can only be found in big cities, and customers have to travel several miles to the nearest bank. The scope of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information (Tiwari & Buse, 2007).

Literally this is banking on the mobile phone. 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.

Branch Networking

Networking of branches can be depicted as the computerization and between associating of geographically diverse stand-alone bank branches, into a framework of Wide Area Network (WAN) for making and sharing of solidified client data (Abor, 2005). It provides quick inter-branch transactions and hence the effect of time and distance are eliminated. Almost all banks in Ethiopia have various branches across the country networked. Regardless of where a customer opened his or her accounts, he or she can access it anywhere.

2.1.3. Benefits of E-Banking

The benefits of electronic banking cannot be over emphasized. This is to say that it provides a lot of benefits both to the customer and the bank itself. To begin with a foremost benefit e-banking service 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 other advantages may be measured in terms of money. The primary objective of every institution is to increase profits with which banks can not be excluded. Many contend that E-banking can do away the hitherto laborious and less viable methods for banking. As indicated by perspectives communicated by (Mols,1998) it was opined that the Internet is a revolution that will do away the old request holds much influence.

The internet revolution in electronic-banking transaction is much less expensive than branch or even telephone transactions. electronic-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 .

Studies by (Rikya, 2007) and (Han, 2008) on the presentation of internet banking and prospects for Bangladesh presumes that the coming of advances have truly gotten data upheaval the general public and that Internet Technology is rightly viewed as the third flood of upset after the farming and mechanical unrests. The approach and adoption of the internet by businesses has uprooted the constraint of time, distance and communication making the globe really a little village. (Han, 2008) likewise discovered the good effect of informational technology on SME finance. SMEs that adapt e-banking are more productive that those that utilize conventional channel.

According to (Rotchanakitumnuai and Speece, 2003) E- banking provides various benefits to both banks and customers. With electronic banking customers can check accounts, transfer

money and can have access to numerous banking products and services. There is no need for Customers to visit banks to make transactions.

Electronic banking assumes a vital part in the economy helping buyers and sellers to make financial worth via the exchange of goods and services by avoiding physical contacts. Through electronic banking, banks have the capacity to draw in versatile clients which give to a great degree huge profit by giving portable money related services. (Wind, 2001), demonstrated that numerous banks are roused to actualize E-banking by components identifying with augmenting their profit through expansion market scope. The increase use in credit card is attributable to electronic banking. Customers are able to shop worldwide without the need of carrying paper money.

2.1.4. Challenges of E- banking

A research by (Daft, 1982) demonstrated that the rise of E-banking may be a smart thought however with respect to customers they may confront some risk connected with the specific type of innovation. Daft identified what he described Strategic Risk. Management of financial institutions should know and understand risks associated with e- banking and provide remedies for it. Poor E-banking planning and investment decisions can increase a financial institution's strategic risk.

The costs of establishing e-banking services are high. Establishing a trusted brand is very costly as it requires the purchase of expensive technology. Some of the problems that customers face in using electronic banking services include risk arising from fraud, network and system errors and other unanticipated events resulting in the organization's inability to convey banking products and services. This risk could be inherent in different products and services (Earl, 2000).

Earl further commented that banking activities can expand their activities of establishment's and the amount of its transaction or operational risk, particularly if the organization is putting forth imaginative administrations that have not been institutionalized. Financial institutions should therefore provide reliable services to help customers gain easy access at all times. Another security issue associated with E-banking as introduced by the Economist journal (1999) recounts that E-banking insecurities is classified into three categories, firstly those associated with fraud

and theft secondly those by hackers” and lastly flaws in systems design or set up leading to security breaches (genuine users seeing / being able to transact on other users” accounts). All of these insecurities have financial and legal reputations.

Other challenges associated with electronic banking spans from the type of technology selected, lack of knowledge and lastly implementation. Earl (2002) furthermore identified that while managers understand their business and operational process, their employees mostly lack the skills and experience to adapt to software technologies and educate their customers.

In other to embrace global technology, there ought to be a satisfactory level of infrastructure and human capacity building before developing nations can receive the global technology for their nearby necessity. The society for worldwide interbank financial telecommunications (SWIFT) to the internet shows that in many developing countries full migration has not occurred as a result of inadequate infrastructure, required technical expertise and working capital.

Many corporate and consumers in some developing countries do not have access to the necessary infrastructure to enable them process electronic payments.

There are a few ramifications of international electronic banking. It is for all intents and purposes realized that low transactional cost possibly make it much less demanding to conduct international banking electronically. For some banks, cross-border operations offer a chance to harvest economies of scale. But it requires a higher level of supervision. In response, many financial institutions have already modified their regulations to achieve their main objectives, ensuring the safety and soundness of the domestic banking system, promoting market discipline, and protecting customer rights and the public trust in the banking system.

2.1.5. Service Quality

The present business era is now named as “Quality Era” because perceived quality of the product is becoming the most important competition factor in business world (Bedi, 2010). It is now the most powerful competition weapon and organization’s life giving blood.

Perceived service quality refers to the consumer’s global attitude or judgment of the overall excellence or superiority of the service. It is a result from comparisons by consumers of

expectations with their perceptions of service (Caruana& Malta, 2002). That means it can be termed as the extent of matching or the degree of discrepancy to which the service delivered matches customer expectations (Parasuraman, Zeithmal, & Berry, 1988). Delivering quality service means conforming to customer expectations on a consistent basis (Thakur, 2011).

Today one of the most dominant topics of research in services is service quality. It is necessary for service providers to understand how customers evaluate the quality of service. When customers consume a product, they compare the quality of experience with their prior expectations, which leads to their satisfaction or dissatisfaction (Thakur, 2011).

Therefore eservices marketing researchers based their work on developing a service quality concept focused on consumer behavior instead of using manufacturing quality concepts (Dhandabani, 2010). Thus it had been recognized that customers evaluate service quality by comparing the actual performance with service expectations that they held (Thakur, 2011).

2.1.6. Customer Satisfaction

Customer satisfaction is a measure of how products and services supplied by a company meet or surpass customer expectation. Customer satisfaction is also defined as the number of customers whose reported experience with a firm exceeds specified satisfaction goals. Another definition of customer satisfaction refers to the extent to which customers are happy with the products and/or services provided by a business. Further definition of customer satisfaction states that it is a term generally used to measure a customer's perception of a company's products and/or services (Ahmed, 2005). It's not a straight 2forward science. Customer satisfaction will vary from person to person, depending on a whole host of variables which may be both psychological and physical.

Customer satisfaction is defined as a collection of outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service. In other words customer satisfaction is a result of a cognitive and affective evaluation where some comparison standard is compared to the actually perceived performance. If the performance perceived is less than expected, customers will be dissatisfied. On the other hand, if the perceived performance exceeds expectations, customer will be satisfied.

In a competitive market place where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy. It is seen as a key performance indicator within business and is often part of a Balanced Scorecard. Therefore, it is essential for organizations to effectively manage customer satisfaction. To be able to do this, organizations need reliable and representative measures of satisfaction.

In researching satisfaction, firms generally ask customers whether their product or service has met or exceeded expectations. Thus, expectations are a key factor behind satisfaction. When customers have high expectations and the reality falls short, they will be disappointed and will likely rate their experience as less than satisfying.

2.1.7. Customer Satisfaction in Banking

Customer satisfaction is a key determining factor why customers leave or stay with a bank. However, keeping customers is also dependent on a number of other factors. These include a wider range of service choices, greater convenience, better prices, and enhanced income (Thakur, 2011).

(Ioanna, 2002) cited in (Thakur, 2011) further proposed that differentiation is nearly impossible in a competitive environment like the banking industry. Banks everywhere are delivering nearly same services. Thus, bank management tends to differentiate their firm from competitors through service quality.

Service quality is a crucial element which impact customers' satisfaction level in the banking industry. Generally in banking, quality is a multivariable concept, which includes differing types of convenience, reliability, services portfolio, and critically, the staff delivering the service (Storbacka et al., 1994) cited in (Thakur, 2011).

Minimum price with maximum usage and profit always breeds higher level of satisfaction (Jamal And Kamal, 2004) cited in (Afsar, 2010). When pricing is not suited to the needs of the customers, dissatisfaction usually occurs. In banking industry also, the interest rates on loans and charges on the usage of online services such as ATM machines and the processing fee is a major source of conflict between the bank and its customers. If customers think that the charges are more than it should become paring to their needs, they switch. Competition is now fierce in

banking industry as it has become too easy to open an account in any other bank that results switching cost to be very minimal. But if a customer is satisfied, the loyalty injects automatically and the customer remains with the current banker for a longer and longer period of time (Fox & Poje, 2002) cited in (Afsar , 2010).

2.1.8. 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. Achieving higher level of service to meet the need of customers. 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 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 sector, 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 to gain 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).

2.1.9. Measuring Customer Satisfaction

Customer satisfaction is measured at the individual level, but it is almost always reported at an aggregate level. 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 (David, 2010).

It is also well recognized that measuring service quality is more difficult than to measure good's quality because of the unique characteristics of services. The main characteristics of services in general and banking services in particular are the following (Parasuraman, Zeithmal, & Berry, 1988):

- It's intangible, since services are not material and cannot be touched.
- The production and consumption of service happens at the same time, which means that it is produced upon request.
- Service cannot be stored

Most researchers found that service quality is the antecedent of customer satisfaction (Bedi, 2010; Kumar et al., 2010; Kumar et al., 2009; Naeem and Saif, 2009; Parasuraman et al., 1988). Quality customer service and satisfaction are recognized as the most important factors for bank customer acquisition and retention (Jamal, 2004; Armstrong and Seng, 2000; Lassar et al., 2000). Service quality is considered as one of the critical success factors that influence the competitiveness of an organization. A bank can differentiate itself from competitors by providing high quality service. Service quality is one of the most attractive areas for researchers over the last decade in the retail banking sector (Avkiran, 1994; Stafford, 1996; Johnston, 1997; Angur et al., 1999; Lassar et al., 2000).

According to (Tse& Wilton, 1988) customer satisfaction is the consumer's response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product.

2.1.10. Customer Satisfaction and its Consequences

Satisfaction has been considered as one of the most important theoretical as well as practical issues for most marketers and customer researchers (Jamal, 2004). Satisfaction reflects a post-purchase evaluation of product quality given pre-purchase expectations (Kotler, 1991). On one hand, within literature on services marketing,

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's 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.

2.2. Empirical Evidences

Some related studies are conducted by different researchers in different parts of the world. However, there are limited numbers of studies conducted in Ethiopia on e-banking technology. Specifically (Gardachew, 2010) conducted a research on the opportunities and challenges of e-banking in Ethiopia. The study was focused on analyzing the status of electronic banking in Ethiopia and investigates the main challenges and opportunities of implementing e-banking system. The author conducted a survey on the existing operating style of banks and identifies some challenges of using e-banking system, such as, lack of suitable legal and regulatory frame works for e-commerce and e- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks.

(Wondossen & Tsegai, 2005) also studied the challenges and opportunities of e-payments in Ethiopia; their objective was studying of e-payment practices in developing countries. The authors employed interview and on site observation to investigate challenges to e-payment in Ethiopia and found that, the main obstacles to the development of e-payments are, lack of customers trust in the initiatives, unavailability of payment laws and regulations particularly for e-payment, lack of skilled manpower and frequent power disruption. According to (Wondwossen & Tsegai, 2005), an adequate legal structure and security framework could foster the use of e-payments, which is contradicting with the finding of the previous study.

The study of (Bultum, 2014) aims to identify factors that affect adoption of e-banking in the Ethiopian banking industry. The study was conducted based on the data gathered from four banks in Ethiopia; three private banks (Dashen bank, Zemen bank and Wegagen bank) and one state owned bank (commercial bank of Ethiopia). A mixed research approach was used to answer the research questions that emerge through the review of existing literature and the

experiences of the researcher in respect of the e-banking system in Ethiopia. The study statistically analyzes data obtained from the survey questionnaire.

A research framework developed based on technology-organization environment model (TOE) developed by Tornatzky and Fleischer. The result of the study indicated that, the major barriers Ethiopian banking industry faces in the adoption of electronic banking are: security risk, lack of trust, lack of legal and regulatory frame work, lack of ICT infrastructure and absence of competition between local and foreign banks.

The study suggests a series of measures which could be taken by the banking industry and by government to address various challenges identified. These measures include establishing a clear set of legal framework on the use of technology in banking industry, supporting banking industry by investing on ICT infrastructure and banks needs to be focused on technological innovation competition rather than traditional bases of retail bank competition.

Furthermore (Assefa, 2013) conducted a study on the impact of e-banking on customer satisfaction in two privet banks in Gondar city. The researcher employed descriptive and inferential statistics in analyzing this study and it was limited to customers of two privet banks only. The results of the study implied that majority of users of e-banking are the young, the educated, salaried and students, business men and women are not actively using the service of e-banking, e-banking currently provided for saving and current accounts holders only, e-banking reduced frequency of bank hall for banking service, reduced waiting time for customers, there are customers who don't know the fee charged for being e-banking users , the bank customers satisfaction increased after being e-banking users, enabled customers to control their account movements and there is high opportunity to expand e-banking service in the city.

The study of (AlaEddin & Hasan, 2011) on e-banking functionality and outcomes of customer satisfaction in Jordanian commercial banks, it aims to explore the adoption of e-banking functionality and investigates the impact of e-banking on the outcomes of customer satisfaction. A purposive sampling technique was employed to recruit 179 customers representing the desired range of demographic characteristics (e.g. gender, age, and computer use), previous internet experience levels and product-related knowledge. The research showed that adoption of e-

banking (accessibility, convenience, security, privacy, content, design, speed, fees and charges) had a positive effect on Jordanian Commercial Bank customers' satisfaction.

Gerrard et al (2006) in their study in Singapore identify risk to be an important factor for Internet Banking adoption. All respondents who did not use internet banking services had a negative perception of the security in Internet Banking. The respondents perceived that there were many security risks when using the internet. They felt the privacy was a concern, feeling all their financial information could be in jeopardy. Risk was one of the two most frequently mentioned factors in their study, concern about risk was mentioned by all respondents. An empirical investigation conducted by (Sathye, 1999) on the adoption of Internet Banking by

Australian consumers also identified, security concerns as key factor in internet banking adoption. A report on Internet Banking in Australia finds that, security concerns among banks and customers are keeping both away from Internet Banking (Sathye, 1999).

The study of (Kerem, 2003) on the adoption of electronic banking: underlying consumer behavior and critical success factors conducted in Estonia, was intended to study the further understanding of, how consumers perceive electronic banking in the heyday of interactive channels in Estonia, as Estonia is internationally renowned for being a pioneer in the acceptance of new technologies. A series of in depth interviews was conducted with leading industry experts in Estonia. The selection criterion for the respondent was mainly their involvement with the development of Internet banking systems from the early days of its emergence.

The survey conducted for this research addressed six different issues influencing the adoption of Internet banking (Better prices, Recommendations, Better service, marketing efforts, better access and higher privacy). The most important factors in starting to use Internet banking are first and foremost better access to the services (convenience), better prices and higher privacy. Better service (i. e. preferring self-service over office service) was also of above average importance. Two factors that the respondents did not consider relevant to their adoption decision were banks' marketing activities and personal recommendations from friends and colleagues. Also the survey conducted six main obstacles (computers are difficult, no access to internet, internet banking is expensive, low security, have had no chance to try and I prefer personal

contact) in adopting Internet banking (results of a preliminary study, 100 respondents), the most important factors discouraging the use of Internet banking are lack of Internet access and not having a chance to try out Internet banking in a safe environment. Finally the research indicates that banking activities alone may not be sufficient in achieving growth if general infrastructure, economic environment and government initiatives are not supportive.

The aim of the study was to collect South African data in order to test out the hypotheses regarding the factors, which affect adoption of Internet banking and compare these results with those collected in other countries. Online questionnaire was used to collect empirical data and the results of the study shows that intention to adopt internet banking can be predicted by attitudinal factors, perceived behavioral control factors to lesser degree, and not by subjective norms. All attitudinal factors except banking needs are found to be significant, with complexity and risk showing a negative relationship.

(Jannatul, 2009) in his study of e-banking & customer satisfaction which focus on understanding the impact of variables of e-banking, on customer satisfaction in Bangladesh, five service quality dimensions namely reliability, responsiveness, assurance, empathy, and tangibles are established based on the SERVQUAL model and the literature review. These variables are tested in e-banking to explore the relationship between service quality and the customer satisfaction. Data were gathered through survey interview by a structured questionnaire with 250 customers. The study shows that these factors are the core service quality dimensions for customer satisfaction in e-banking. It also explores that reliability, responsiveness, and assurance have more contribution to satisfy the customers of e-banking in Bangladesh.

In general, most of e-banking related studies are too remote for our cases and even the study of (Assefa, 2013) which is found to be similar to the present topic were done in qualitative approach also ignores state owned e-banking customers. Thus to address the current gap in the literature, methodology and question of representativeness this study is designed to examine the impact of e-banking on the satisfaction of customers in two Private Banks and one public bank in Addis Ababa.

2.3. Conceptual framework

The service quality variables identified by (Parasuraman et al., 1994) are reliability, responsiveness, competence, accessibility, courtesy, communication, credibility, security, understanding and tangibility. Service quality leads to overall customer satisfaction. It is one of the service factors contributing to customers' satisfaction judgments and can be considered in multi-level and multi-dimensional (Caruana & Malta, 2002).

Yang, Jun, & Peterson (2004) identified five online service quality dimensions (responsiveness, reliability, competence, access and security) and their relationships with the customer satisfaction. (Wolfenbarger & Gilly, 2002) observed that reliability and fulfillment are the strongest predictors for customer satisfaction. (Lui & Arnett, 2000) identified five critical dimensions of online service quality in relations to customer satisfaction in the website. Among these, the quality of information that is relevant, accurate, timely, customized and complete are given priority for the customer satisfaction in the online service. (Johnston, 1997) identified attentiveness, responsiveness care and friendliness as the main sources of satisfactions (satisfiers) in banking services, and integrity, reliability, availability and functionality as the main sources of dissatisfaction. (Khalil & Pearson, 2007) have found that trust significantly affects attitude towards internet banking acceptance. To encourage internet banking adoption, banks need to develop strategies that improve the customer's trust in the underlying technology. The other factors include quick response, assurance, follow-up and empathy. Security, correct transaction, customer control on transaction (personalization), order tracking facilities and privacy are other important factors in the online service that affect the customer satisfaction. (Joseph, McClure, & Joseph, 1999) investigated the influence of internet on the delivery of banking services.

They found six underlying dimensions of e-banking service quality as convenience and accuracy, feedback and complaint management, efficiency, queue management, accessibility and customization. (Jun & Cai, (2001) identified 17 service quality dimensions of Internet banking service quality. These are reliability, responsiveness, competence, courtesy, credibility, access, communication, understanding the customer, collaboration, continuous improvement, content, accuracy, ease of use, timeliness, aesthetics, security and divers features. They also suggested that some dimensions such as responsiveness, reliability and access are critical for both traditional and internet banks.

(Hua , 2009) conducted an experiment to investigate how user's perception about online banking is affected by the perceived ease of use of website and the privacy policy provided by the online banking website. In this study, it also investigates the relative importance of perceived ease of use, privacy, and security. Perceived ease of use is of less importance than privacy and security. Security is the most important factor influencing user's adoption.

(Jun et al, 1999) revealed reliable/prompt responses, attentiveness, and ease of use had considerable impacts on both customers perceived overall service quality and satisfaction. It also indicated that there is a significant positive relationship between overall service quality and satisfaction. Yang & Jun (2002) redefined the traditional service quality dimensions in the context of online services, and suggested an instrument consisting of seven online service dimensions (reliability, access, ease of use, personalization, security, credibility, and responsiveness). Joseph et al (1999) considered banking service quality with respect to technology use, such as ATMs, telephone, and the internet and identified six dimensions. They were convenience/accuracy, feedback/complaint management, efficiency, queue management, accessibility, and customization.

Zeithaml et al (2000) developed SERVQUAL for measuring e-service quality. They identified 11 dimensions: access, ease of navigation, efficiency, flexibility, reliability, personalization, security/privacy, responsiveness, assurance/trust, site aesthetics, and price knowledge.

Extensive study on service quality conducted by researchers have proposed that service quality can be measured using the SERVQUAL instrument (Parasuraman, Berry &Zeithaml 1985, 1988). The attributes of initial SERVQUAL model were tangibles, reliability, responsiveness, competency, courtesy, assurance, credibility, security, access, and understanding. Later reduced these ten dimensions into five by using a factor analysis (Parasuraman et al, 1988). These five dimensions are tangibles, reliability, responsiveness, and Empathy. The SERVQUAL instrument provides the computed disconfirmation approach whereby the difference between a customer's expectation and the actual performance is calculated (Dhandabani, 2010)

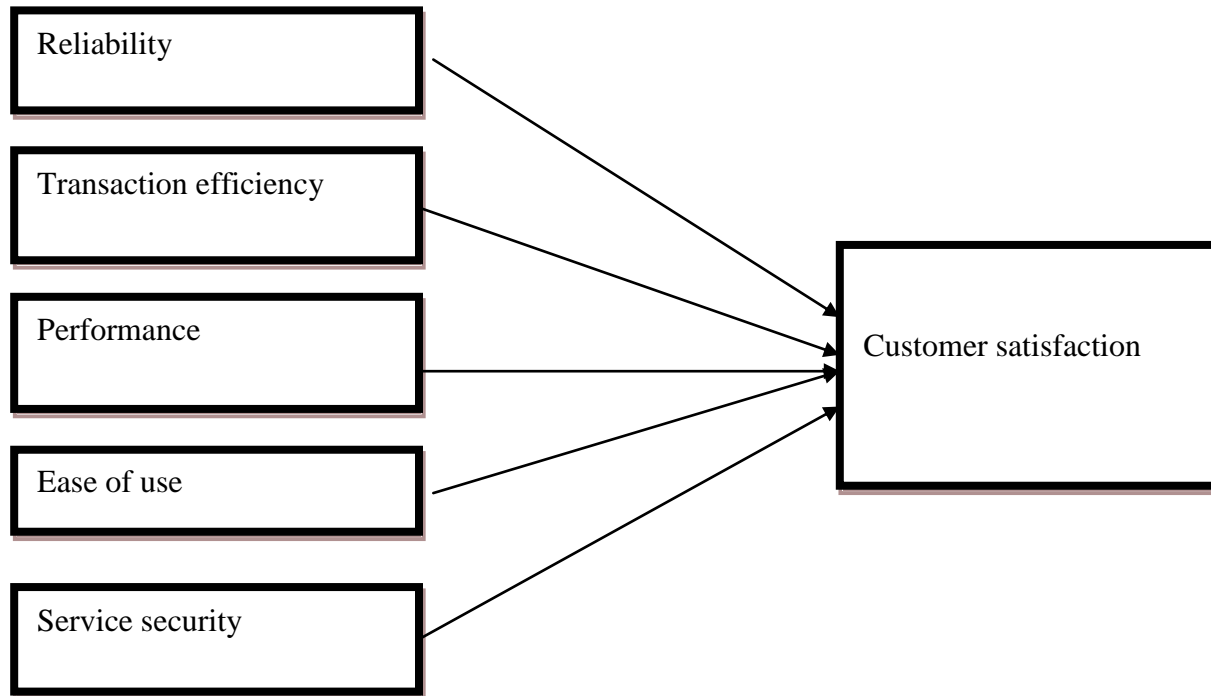


Fig 2.1 conceptual frame work of independent and dependent variables

Source: adopted form Parasuraman et al (2000 and 2002)

2.3.1. Definition and Features of Independent Variables

Reliability

Reliability refers to the ability to perform the promised service accurately and consistently. It involves accuracy in billing, keeping records correctly, and performing the service at the designated time. Reliability consists of providing services as promised, dependability in handling customers' service problems, prompt reply to customer enquiries, provide services at the promised time and maintaining error-free record. Reliability is the most important factor in conventional service (Parasuraman, Zeithaml, & Berry 1988).

Transactions Efficiency

Transaction efficiency is the ability of the customers to get any of e-banking service, find the desire product and information associated with it, and check out with minimal of effort. Transaction efficiency also can understand as performance of e-banking base on some elements:

up to date information, response time, download time, complete product information, tutorial/demonstration, and help function (Leelapongprasut et al, 2005).

Service Security

Security is defined as the freedom from danger, risk, or doubt. It involves physical safety, financial security and confidentiality. It consists of employees who instill confidence in customers, making customers feel safe in their transactions, employees who are consistently courteous and employees who have the knowledge to answer customer question (Parasuraman, Zeithaml & Berry, 1985). Moreover, security is defined as personal and possessions safety of the customers. It also includes confidentiality maintained by service providers (Johnston, 1997).

Ease of Use

Ease of use is important in using e-banking, which related to customer apprehension about the efforts required to learn to use e-banking (David, 2010). It is considered as the factor influencing the adoption of e-banking, and related to an easy-to-remember pin codes and URL address, well-organized and usable software, easy of site navigability, concise and understandable contents, terms and conditions (Alagheband, 2006).

Performance

Performance is the operating quality of each e-banking service and feature offered by banks. It includes whether e-banking services provide in multi-language or not, e-banking provide 24 hours-7 days service, allow to transfer funds between banks (Garvin, 1987).

2.3.2. Research hypothesis

Reliability refers to the ability to perform the promised service accurately and consistently. It involves accuracy in billing, keeping records correctly, and performing the service at the designated time. Reliability consists of providing services as promised, dependability in handling customers' service problems, prompt reply to customer enquiries, provide services at the promised time and maintaining error-free record. Reliability is the most important factor in conventional service (Parasuraman, Zeithaml, & Berry 1988).

H1.service reliability has a significant and positive effect on customer satisfaction.

HO. Serves reliability has no significant and positive effect on customer satisfaction

Transaction efficiency is the ability of the customers to get any of e-banking service, find the desire product and information associated with it, and check out with minimal of effort. Transaction efficiency also can understand as performance of e-banking base on some elements: up to date information, response time, download time, complete product information, tutorial/demonstration, and help function (Leelapongprasut et al, 2005).

H2. Transaction efficiency has a significant and positive effect on customer satisfaction

HO. Transaction efficiency has no significant and positive effect on customer satisfaction

Performance is the operating quality of each e-banking service and feature offered by banks. It includes whether e-banking services provide in multi-language or not, e-banking provide 24 hours-7 days service, allow to transfer funds between banks (Garvin, 1987).

H3. Performance has a significant and positive effect on customer satisfaction

HO. performance has no significant effect on customer satisfaction

Ease of use is important in using e-banking, which related to customer apprehension about the efforts required to learn to use e-banking (David, 2010). It is considered as the factor influencing the adoption of e-banking, and related to an easy-to-remember pin codes and URL address, well-organized and usable software, easy of site navigability, concise and understandable contents, terms and conditions (Alagheband, 2006).

H4. Ease of usage has a significant and positive effect on customer satisfaction

HO. Ease of usage has no significant and positive effect on customer satisfaction

Security is defined as the freedom from danger, risk, or doubt. It involves physical safety, financial security and confidentiality. It consists of employees who instill confidence in customers, making customers feel safe in their transactions, employees who are consistently courteous and employees who have the knowledge to answer customer question (Parasuraman,

Zeithaml & Berry, 1985). Moreover, security is defined as personal and possessions safety of the customers. It also includes confidentiality maintained by service providers (Johnston, 1997).

H5. E-banking security has a positive and significant effect on customer satisfaction

H0. banking security has no positive and significant effect on customer satisfaction

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

This chapter presents the research design and methodology. It also presents the data type, sampling design and procedure, data collection procedures and data analysis techniques.

3.1. Research Design

Mouton (2001) defines research design as a plan or blueprint of someone intending to conduct research. Research design involves how the researcher has planned to carry out the research. And in this study explanatory and descriptive designs will be used. 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 so as to add to the existing literature on the subject matter.

Descriptive designs were used to describe the current state of e banking at commercial bank of Ethiopia.

3.2. Research approach

Quantitative research approaches were used. Quantitative research is a structured way of collecting and analyzing data obtained from different sources. It involves the use of computational, statistical and mathematical tools to drive results. Because this study was deductive which intended to test hypothesis formulated based on the literature, quantitative research approach were used.

3.2.1. Characteristics of population

The population about analysis was made the total customers of the north Addis Ababa district of Commercial Bank of Ethiopia. The target populations from which the sample respondents were

selected are the total number of saving individually operated account holders of the six conveniently selected branches (AratKillo, Selassie ,BirehanenaSelam, Tewdros Square, GeneteTsige and Addisu Gebeya branches).

3.2.2. Unit of analysis

The unit of analysis for this study was the saving account holders of e-banking users of selected branches of north Addis Ababa districts of Commercial Bank of Ethiopia.

3.2.3. Sampling techniques and sample size

Out of the 105 branches under the north Addis district of the CBE; taking the relative size, year of operation of the branches, cost and availability of time for the study into consideration, for this study six branches were be selected namely AratKillo, Selassie ,BirehanenaSelam, Tewdros Square, GeneteTsige and Addisu Gebeya branches by convenience sampling technique and believed to provide a representative sample.

Based on the recommendation of (Eihgie, 2006); to make a more specific study, from all customers of the bank saving account holders of customers were purposely selected. As they are believed to be the regular customers and can better sense e-banking service of the bank. Hence, the target population in this study were e-banking users among saving account customers who are receiving these services from commercial Bank of Ethiopia. In order to make generalizations with confidence about the construct under investigation, the appropriate sample size has to be considered.

Sample size

Sample size determination is the act of choosing the number of observations or replicates to include in a statistical sample. The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. In this study the following formula is used in order to determine the sample size and equal number of questionnaires will be distributed to the six branches respondents.

Cochran (1977) developed a formula to calculate a representative sample for proportions as:

$$n = \frac{Z * P * (1 - P)}{(e)^2}$$

Where,

n= the minimum number of sample size within the range of acceptable error margin;

z= the critical value for chosen confidence level

p= the proportion of population having the characteristics

e= the acceptable margin of error

The proportion of population (p) indicates how skewed respondents are on the choice (in our case, the proportion of satisfied customers). It may be known from prior research or other sources. Therefore, at 95% confidence interval, 5% margin of errors and 0.5p, the sample for this study determined as below:

$$n = \frac{1.96 * 0.5 * (1 - 0.5)}{(0.05)^2} = 384$$

3.3. Data source and collection procedures

Quantitative and qualitative data gathered from both primary and secondary data sources. While the study basically depended on primary sources of data from e-banking users of saving account customers, it also used secondary sources of data to fill gap. The primary data was collected from customers through questionnaires. Primary data are described as those items that are original to the problem under study. This undertaking access and generate primary data from respondents sampled for the study. Primary data are necessary in order to get relevant, original and reliable first-hand information about the problem under study. Questionnaires are the major tool of capturing the primary data because of its advantages over the other methods and its efficiency or ability to capture more information from the source.

Secondary data were gathered from the available literatures, journals, reports and documents. These are accounts offered by the second part, those who did not actually see the object or event

but obtained information and provided descriptions of what they learned. They are usually seen as text that is produced much later than the events being studied, offering an interpretation and conversion of the primary data into an account that may be consulted by others. Secondary data's are like reports journals and written papers are also important in order to get information's that are not possible in primary data's.

3.4. Method of data analysis

The collected data were analyzed using quantitative data analysis method. Descriptive analysis such as frequencies and percentage used to present quantitative data in form of tables and graphs. Data was coded and entered in to the computer using statistical package for social science (SPSS Version 20) for analysis. It gives means, standard deviations, correlations and frequency distribution of each independent and dependent variable. Customer satisfaction regressed against the five independent variables using the regression model. The mean and standard deviation are the most descriptive statistics used in this study to give a description of the data.

3.5. Reliability Test

Reliability is the degree to which the measure of a construct is consistent or dependable. The reliability test was executed by Cronbach's alpha coefficient and items which scored above the acceptable value were retained.

Tavakol & Dennick (2011) if a test has more than one concept or construct, it may not make sense to report alpha for the test as a whole as the larger number of questions will inevitable inflate the value of alpha. In principle therefore, alpha should be calculated for each of the concepts rather than for the entire test or scale.

The coefficient of alpha varies from 0 to 1 and the value of 0.5 or less is generally indicates unsatisfactory internal consistency reliability and unacceptable (Ramayah, 2011).

According to Zikmund et al., (2000) scales with coefficient alpha between 0.6 and 0.7 indicate fair reliability and acceptable. Based on the above range all the variables designed were found to be a good measure of the internal consistency. An alpha coefficient of greater than 0.6.

Table 3.1 reliability coefficient of study variables cronbach's alpha

Item	N	Cronbach's Alpha
	27	
Reliability	3	.810
Transaction Efficiency	2	.678
Service Security	4	.823
Ease of use	5	.858
Performance	3	.775
Customer satisfaction	5	.867

3.6. Validity Analysis

Validity is the extent to which differences found with a measuring instrument reflect true differences among those being tested (Kothari, 2004). In other words, Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure. In order to ensure the quality of the research design content and construct validity of the research will be checked. According to Kothari (2004) Content validity is the extent to which a measuring instrument provides adequate coverage of the topic under study.

If the instrument contains a representative sample of the universe, the content validity is good. Its determination is primarily judgmental and intuitive. It can also be determined by using a panel of persons who shall judge how well the measuring instrument meets the standards, but there is no numerical way to express it. Based on this the content validity was verified by the professionals.

3.7. Test of normality of the Data

Among the others, one of the assumptions was normality of the data should be tested before running the analysis of the data using skewness and Kurtosis. According to Fieled (2005), normally distributed data assumed that the data are from one or more normally distributed populations. The rationale behind hypothesis testing relies on having normally distributed

populations and so if these assumptions are not met then the logic behind hypothesis testing is flawed.

Therefore, value of S (Skewness) and K (Kurtosis) and their respective standard errors were computed. An absolute value between -2 and +2 score for Skewness and Kurtosis is expected to be significant at $p < 0.05$. Large sample will give rise to small standard errors and so when sample sizes are big, significant values arise from even small deviations from normality for both skewness and Kurtosis (Fieled, 2005)

Table 3.2 skewness and Kutosis for normality of Data

	N	Skwness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Reliability	377	-.786	.126	.184	.251
Transaction Efficiency	377	-.640	.126	.074	.251
Service Security	377	-.528	.126	-.288	.251
Ease of Use	377	-.531	.126	-.469	.251
Performance	377	-.413	.126	-.698	.251
Customer Satisfaction	377	-.376	.126	-.757	
Valid N (list wise)	377				

(Source: Researcher's Survey, 2018)

As we can see from table 3.2 above all the absolute values of skwness and the kurtosis are between -2 and +2.

3.8. Ethical Considerations

The Researcher had considered some ethical issues .Respondents has the right to participate or not, the survey enumerator had informed respondents about the purpose of the survey and the confidentiality of their response are also ensured. While conducting the study, emerging ethical issues were considered and attention had been given.

For this purpose the introduction part of the questionnaire stated the purpose and importance of the study, confidentiality. Respondent were informed their full right to fill the questions or to

withdraw from the study at any time without any unfavorable consequences, and they are not harmed as a result of their participation or non-participation.

In order to collect primary data, structured questionnaire were distributed. And only general information was written in the paragraph of the questionnaire to protect their response from predisposition. The confidentiality of respondents was protected and respondents' identities were not disclosed.

Finally all research finding has not been obscured and is free from any plagiarism by acknowledging every reference used. In addition to this, the study was done in an open minded manner and attitudes were expressed as they are. Nothing was modified and changed. Hence information going to be collected is presented as they are and all the literatures gathered for the purpose of this study were appreciated in the reference.

CHAPTER FOUR

RESULT AND DISCUSSION

A total of 384 questionnaires were personally handled to the respondents with close follow up and guide in filling the questionnaire and 377 respondents filled and returned their questionnaire. Thus constituting 98.2% of the questionnaires are returned, while 9 of the respondents didn't respond and never returned the questionnaire and constituted about 1.8%.

Several questions that measure customers' satisfaction on the e-banking services provided by Commercial Bank of Ethiopia are included in the questionnaire. The questionnaires distributed to customers of six selected branch that are located in North Addis district of CBE.

The basic assumptions are e-banking selected service quality attributes namely reliability, transaction efficiency, service security, ease of use and performance influence customer satisfaction.

A multiple regression modeling approach was proposed as an effective method for studying the relationships. The result of this multiple regression model analyzed and discussed in this chapter

The statistical analysis of this study was done by SPSS software version 20, the result of the study shown in inference and descriptive section. In descriptive section tables, charts used and in inference section the result of multiple linear regressions was analyzed.

4.1. Respondents' profile

The questionnaire include a segment of customer's profile such as an assortment of demographics and other factors that likely to influence the degree of customer satisfaction with respect to the e-banking services offered by commercial Bank of Ethiopia.

In studies like this it is important to analyze the background information of the respondents. This is because people's social background influences their thinking pattern and to larger extent what they do. The background information comprised of age, gender, educational level, and occupation

Concerning the gender of respondents, 53.3% of them are male and the rest 46.7% are females. This shows that the major participants at commercial Bank of Ethiopia e-banking services are male based on this; we can say that in CBE the major user of e-banking services are male.

Table 4.1 Demographic profile of e banking customers

No	Demographics	Frequency	Percentage	
1	Gender	Male	201	53.3
		Female	176	46.7
2	Age of respondents	18-35	235	62.3
		36-50	124	32.9
		>50	15	4.0
3	Level of education	Primary education	34	8.9
		High schools	59	15.5
		Diploma	82	21.6
		Degree	103	27.1
		Master's degree or above	99	26.7
4	Occupation of respondents	Student	47	12.4
		Employee at government & private organization	204	53.7
		Self employed	95	25
		Not employed	31	8.2
5	Types of e-banking used by respondents	ATM	155	40.8
		POS	83	21.8
		Mobile Banking	103	27.1
		Internet Banking	36	9.5

Majority respondents belongs to age group of 18-35 years which accounts 62.3%, followed by 36-50 years (32.9%) and, >50years having 4% share. This shows that the majority of CBE e-banking customers are between the age of 18 and 35. It implies that the service users are dominated by youth age groups and This finding suggest that most of the customers were found in the working age bracket as they might be much involve in transaction daily banking business.

Regarding education, the respondents were predominantly first degree, and masters and above holders with 27.1% and 26.7%, respectively. There are no respondents who were less than primary education level. This shows that the respondents had high literacy levels.

As far as occupation is concerned, the respondents were a mix of employee at government or private organization 53.7%, and self-employed 25%. This implies that most of e-banking customers are employees of government or private organization, and self-employed.

As presented in the table 4.1, ATM received the highest patronage about 40.8% compared to all other e-banking products. This may be as a result of the fact that the ATM plays a very vital role in the banking process. This includes the fact that the machines work even when the banks close and especially on the weekends.

The situation may be on the rise especially as some banks are taking giant step in implanting ATM machines that has been configured to accept cash deposits. This result is not surprising because among most of the innovative e-banking products/services introduced over the years, the use of ATM technology is highly convenient for customers and users.

Bank customers can easily obtain cash from their banks without having to be physically present at the bank premises. Apart from benefit of convenience, the ATM innovation is one of the most secure means for customers to access their cash. The ATMs innovation gives banking customers greater access to their money by taking banking to their doorsteps.

There are virtually no queues in banking halls, no time limit for cash withdrawals and customers can easily access their bank balances. It is also one of the simplest e banking products as customers do not go through difficulties in cash withdrawal. All these benefits have contributed to make the ATM innovation one of the most successful banking innovations.

4.2. Mean and standard deviation

Descriptive statistics (mean and standard deviations) of the respondent scores were computed. Analysis has been done by comparing these mean scores and deviations among respondents. The reason for using descriptive statistics is to compare the different factors that affect the level of customer satisfaction by using the means and standard deviations values.

Table 4.2 shows the mean value depicting the overall customer's satisfaction. As far as this descriptive statistics is concerned, customer's satisfaction on e-banking is above satisfactory level with a mean value of 3.30 on a 5 point Likert scale.

This implies that reliability, transaction efficiency, service security, ease of use and performance have an effect on the customer satisfaction.

Table 4.2: Mean & Standard Deviation

	No of items	N	Mean	Standard deviation
Reliability	3	377	3.7630	0.95146
Transaction efficiency	2	377	3.7467	0.98332
Service security	4	377	3.6426	0.95008
Ease of use	5	377	3.6658	0.96476
Performance	3	377	3.5358	1.05576

The table suggests that all e-banking service quality dimensions rated as above satisfactory. As far as the mean values are concerned, out of the e-banking service quality dimensions reliability (mean of 3.7630), transaction efficiency (mean of 3.7467) and ease of use (mean of 3.6658) have relatively major roles on e-banking service quality and in turn overall e-banking customer satisfaction.

From this we can deduce that all explanatory variables play a fundamental role in the customer satisfaction of e-banking services provided by Commercial Bank of Ethiopia.

Empirical evidence in this research also suggests that e-banking factors have a significant degree of influence on customer satisfaction. This empirical evidence has provided significant support for the e-banking literature, which substantively advocates that e-banking factors have an impact on customer satisfaction (Hun, 2009; Wise, Victoria & Ali&Mohammed, 2009)

4.2 Regression Analysis

In this section regression analysis for dimensions of customer satisfaction on e-banking has been undertaken to understand the relationship between customer satisfaction on e-banking explanatory variables.

4.2.1. Diagnosis Test

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

Correlation Test between Study Variables

In this section the correlation between customer satisfaction in e-banking and explanatory variables; reliability, transaction efficiency, service security, ease of use, and performance has been presented and analyzed. A correlation matrix is used to ensure the correlation between explanatory variables.

Table 4.3 Correlation table

		Reliability	Transaction efficiency	Service security	Ease of use	Performance	Customer satisfaction
Reliability	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	377					
Transaction efficiency	Pearson Correlation	.637**	1				
	Sig. (2-tailed)	.000					
	N	377	377				
Service security	Pearson Correlation	.635**	.536**	1			
	Sig. (2-tailed)	.000	.000				
	N	377	377	377			
Ease of use	Pearson Correlation	.633**	.545**	.732**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	377	377	377	377		
Performance	Pearson Correlation	.408**	.542**	.495**	.645**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	377	377	377	377	377	
Customer satisfaction	Pearson Correlation	.552**	.517**	.626**	.664**	.672**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	377	377	377	377	377	377

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

The correlation between dependent and independent variables along with the casual effect was analyzed using Statistical Package for Social Science (SPSS). The above correlation matrix provides the correlation between variables with Pearson correlation coefficient to show the strength of relationship among the variables (independent & dependent).

Pearson correlation analysis was used to provide evidence of convergent validity and Pearson correlation coefficients reveal magnitude and direction of relationships either positive or negative and the intensity of relationship. Correlation is perhaps the most basic and most useful measure of association between two or more variables (Marczyk, Dematteo and Festinger, 2005).

Cooper & Schindler (2009) suggested that a correlation coefficient above 0.8 between explanatory variables should be corrected for because it is a sign for multicollinearity problem. Malhotra (2007) argued that the correlation coefficient can be 0.75. Lastly, Hair et al. (2006) argued that correlation coefficient below 0.9 may not cause serious multicollinearity problem.

Correlation between dependent and independent variable

The above table shows that the result of correlation coefficient between dependent variable (customer satisfaction) and independent variables (reliability, transaction efficiency, service security, ease of use and performance).

As it can see from the above table, the result of correlation between customer satisfaction and reliability showed a positive coefficient of relation of 0.552. This result shows that service reliability has significant relationship with customer satisfaction.

The correlation coefficient between customer satisfaction and transaction efficiency is positive with a value of 0.517. This implies that there is a positive correlation between customer satisfaction and transaction efficiency, as the customer have more efficient transaction efficiency services the satisfaction will be increase.

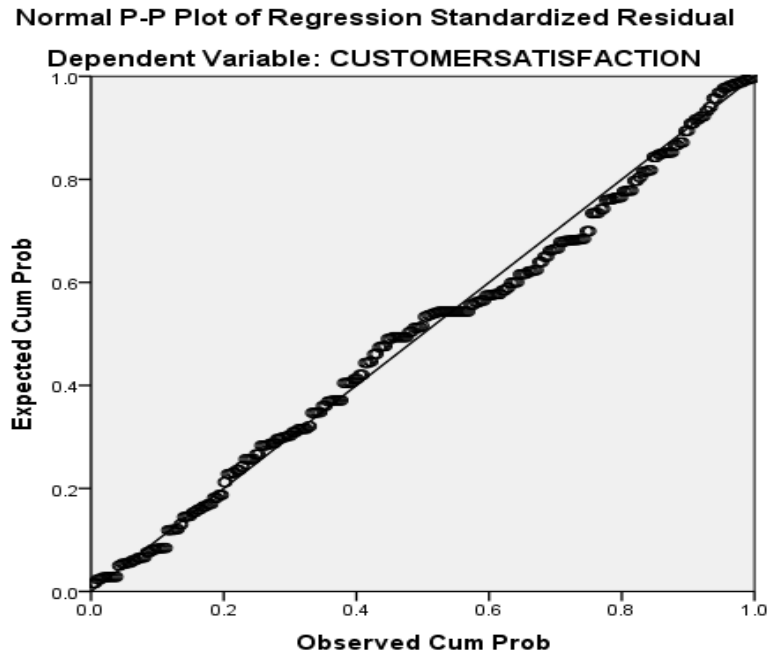
The correlation coefficient between customer satisfaction and service security has positive value of 0.626, implying that there is strong correlation between them.

Based on the correlation result performance and ease of use have a positive and strong relationship with customer satisfaction with the coefficient of 0.672 and 0.664, respectively.

Linearity Test

Linearity refers to the degree to which the change in the dependent variable is related to the change in the independent variables. To determine whether the relationship between the dependent variable and the independent variables (reliability), (transaction efficiency), (service security), (ease of use), and performance is linear; plots of the regression residuals through SPSS software had been used.

Figure 4.1: The scatter plot of residuals



Source: SPSS output

The scatter plot of residuals shows no large difference in the spread of the residuals as you look from left to right on figure 4.1. This result suggests the relationship we are trying to predict is linear.

Regression Result

The overall regression model and its ANOVA are summarized as follows:

Table 4.4 Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
1	.770 ^a	.593	.587		.63642	1.920

a. Predictors: (Constant), PERFORMANCE, RELIABILITY, SERVICESECURITY, TRANSACTIONEFFICENCY, EASEOFUSE

b. Dependent Variable: CUSTOMERSATISFACTION

R-squared is measured the goodness of fit of the explanatory variables in explaining the variations in customers satisfaction measures of explanatory variables (reliability, transaction

efficiency, service security, ease of use and performance). As clearly described in table 4.4 adjusted R-square values for the regression model was 0.587. This indicates the explanatory variables; reliability, transaction efficiency, service security, performance and ease of use in this study explain approximately about 59 percent of the variation in the level of customer satisfaction. The remaining 41 percent of the variation in the level of customer satisfaction of CBE are explained by other variables which are not included in the model. Therefore, e-banking service dimensions (reliability, transaction efficiency, service security, performance and ease of use) are good explanatory variables of the satisfaction level of commercial bank of Ethiopia e-banking services

But it does not mean that all these factors of e-banking service quality have equally significant correlation with customer satisfaction level.

The results of the multiple linear regression analysis signal that there is variation in the effect of e-banking service quality dimensions on customer satisfaction.

Beside the F statistics which is used to measure the overall test of significance of the model was presented, and null hypothesis can be clearly rejected since the p-value is 0.000 which is sufficiently low, the model is well fitted at 1 percent level of significance.

Table 4.5: Result of the regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.
	B	Std. Error			
(Constant)	0.325	0.155		2.094	0.037
Reliability	0.160	0.52	0.154	3.069	0.002
Transaction efficiency	0.003	0.48	0.002	0.053	0.958
Service security	0.235	0.54	0.225	4.350	0.000
Ease of use	0.141	0.59	0.137	2.376	0.018
Performance	0.383	0.43	0.408	8.868	0.00

- a. Dependent variable: customer satisfaction
- b. Predictors (constant) : reliability, transaction efficiency, service security, ease of use and performance

Source: SPSS data (2018)

Similarly, the regression table shows the overall significance/ acceptability of the model from a statistical perspective. As the significance value of F statistics shows a value of (.000), which is less than $p < 0.05$. Thus, the model is significant which indicates that the variation explained by the model is not due to chance.

As stated earlier, this study aims to identify the most contributing independent variable in the prediction of the dependent variable. Thus, the strength of each predictor (independent) influencing the criterion dependent variable can be investigated via standardized Beta coefficient. The regression coefficient explains the average amount of change in the dependent variable that is caused by a unit change in the independent variable. The larger value of Beta coefficient an independent variable has, bring the more important determinant in predicting the dependent variable.

From the above table we can develop the following major findings:

Coefficient analysis shows the relationships between dependent variables and independent variables. Accordingly, reliability, service security, ease of use and performance were statistically significant at 1% level in agreement with the hypothesis. This means they have great contribution to improve customer satisfaction. Whereas, the sig. of transaction efficiency is greater than 0.05 and conclude that the variable has no significant effect on customer satisfaction.

Basically, $CSEB = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$

Where, CSEB = Customer Satisfaction in E-Banking

X1 = Reliability

X2 = Transaction efficiency

X3 = service security

X4 = ease of use

X5 = performance

From the above table 4.5 finding we can develop the following regression model

$CSEB = 0.160 + 0.235X_1 + 0.235X_3 + 0.141X_4 + 0.383X_5$

Std. Err (0.155) (0.52) (0.54) (0.0.59) (0.43)

T values (2.094)* (3.069)* (4.350)* (2.376)* (8.868)

R square (Adj.) = 0.587, F = 107.930

*= Significant at 99% level

Where, CSEB = customer satisfaction n on E-Banking he

X1 = Reliability

X3 = Service security

X4 = Ease of use

X5 = Performance

Coefficient analysis shows the relationship between dependent variable and independent variables. According to Sig. value of X1 (reliability), X2 (transaction efficiency) and X5 (ease of use) are statistically significant at 1 percent significant level in agreement with the hypothesis. Which means; reliability, service security, ease of use and performance have great contribution to improve customer satisfaction on e-banking. Whereas the sig. value of X2 (transaction efficiency) is greater than 0.05 and conclude that the variable has no significant impact on customer satisfaction from using e-banking.

Here reliability = 0.160 i.e., 100% change in reliability leads to 16% positive change in customer satisfaction level.

- Although the coefficient of *transaction efficiency* =0.003, it is found to be statistical insignificant, which means does not affect customer satisfaction.
- Service security = 0.235, implying that 100% change in service security leads to 23.5% positive change in customer satisfaction level.
- Ease of use =0.141, implies 100% change in ease of use leads to 14.1% positive change in customer satisfaction level.
- Performance = 0.383, implies 100% change in performance leads to 38.3% positive change in customer satisfaction level.

All explanatory variables have a significant positive effect on customers' satisfaction except transaction efficiency which is found to be statistically insignificant. This shows that transaction efficiency has no significant effect on e-banking customer satisfaction of CBE.

The findings provide significant support for the reliability, service security, ease of use and performance literature which advocates that the variables have an influence up on customer satisfaction in CBE. The findings are also consistent with other research findings (Jun et al, 1999, Yang, Jan & Peterson, 2004, Lui & Amett, 2000) found that reliability provides higher degree of satisfaction on e-banking.

Parasurman et al 1988, Yang Jun & Peterson 2004, Lui & Amett, 2000, Stor back et al,1994 cited in (Thahkur, 2011) found that ease of use and satisfaction as critical factors on the use of e-banking

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATION

Introduction

This chapter presents the overall summary of the study, conclusion and the recommendation of the study. The recommendations however, consisted of two parts. It is made up of the main recommendation as well as recommendation for future research. It is important to also mention that the recommendations provided emanated from the findings of the study.

5.1. Summary

The primary objective of this study was to examine the effect of e-banking on customer satisfaction in the case of commercial bank of Ethiopia. In order to do this, five determinants of e banking service quality variables are used. These are reliability, transaction efficiency, service security, ease of use and Performance. Hence, this study has attempted to identify which determinant has the highest influence on the customer satisfaction of e banking of Commercial Bank of Ethiopia.

In addition, this study has also tried to answer the research questions stated on the introduction part. Descriptive analysis revealed that the majority of the customers of e banking users in the CBE were male and the majority of the respondents fall within 18-35 years means adult age group.

5.2. Conclusion

Customer satisfaction is the major factor contributing to the success of service sector. E-banking has become a major facility sought after by the existing and potential customers. All the service sectors depend on customer and their satisfaction and the banks are no exception. One of the ways for achieving high customer satisfaction and gaining the loyalty of customers is for banks to offer high quality services.

In this research the level of satisfaction of customers with the different quality dimensions pertaining to the theoretical model was evaluated. Accordingly, the major findings are presented as follows:

Descriptive analysis revealed that the majority of current e-banking users are youth between the age of 18-35, occupationally employee at government and private organization. Educationally, the respondents were predominantly degree holders.

Customer satisfaction on e-banking is above satisfactory level with mean value of 3.30 on a 5 Likert scale out of the e-banking service quality dimensions reliability (mean of 3.76), service security (mean of 3.64), ease of use (mean of 3.67) and performance (mean of 3.5) are the majors to improve e banking services and customer satisfaction.

As it was described in the report findings adjusted R-square values for the regression model was 0.587. This indicates the explanatory variables; reliability, transaction efficiency, service security, performance and ease of use in this study explain approximately about 59 percent of the variation in the level of customer satisfaction. The remaining 41 percent of the variation in the level of customer satisfaction of CBE are explained by other variables which are not included in the model.

Reliability, service security, ease of use and performance has positive relationship with customer satisfaction in agreement with the hypothesis.

Any increase in reliability, service security, ease of use, and performance leads to increase in customer satisfaction by 15.4%, 22.5%, 13.7% and 40.8% respectively. These results are significant at 1% level of precision.

5.3. Main Recommendation

The analysis of this work includes implications for Commercial Bank of Ethiopia as far as the satisfaction level of their customers with different aspects of the e-banking services is concerned. Therefore, based on the study results the following recommendations are forwarded for the concerned bodies.

The study revealed that majority of the bank e banking customers were males. This is unfair, especially in a country where feminist groups are fighting for women empowerment. It is therefore, recommended that the banks take notice of this phenomenon and revert it to at least create some gender balance in their future employments.

Banks should work much in increasing the number of users from all aspects that is from age, educational status and occupationally should do great job in making to be the users of e-banking.

The study established that ATM users were high among customers. This was positive and encouraging. The researcher therefore recommends that more user friendly automated teller machines be put not only at the bank premises but also around vantage points within the metropolis to boost business transactions. Again, frantic efforts should be made to acquiring cash deposits ATM machine as done in some parts of the world.

As reliability, service security, ease of use and performance dimensions are highly significant impacts on the level of satisfaction, commercial bank of Ethiopia has better to focus on these dimensions to bring higher level of satisfaction to their customers.

Commercial banks should give additional emphasis to reliability and transaction efficiency to increase the satisfaction level of e-banking customers.

Banks need to increase the confidence of their customers as well as develop their skills and knowledge in using e-banking services. They could also employ the use of video presentations at bank branches and on television to showcase the user friendliness of such services. This will help customers to be more familiar with the e-banking services

5.4. Recommendation for Future Research

Electronic banking services have become one of the mainstream banking strategies globally. In spite of it numerous advantages there have been some challenges which hinders it optimum usage both to the public and the bank themselves. The complexities associated with e-banking patronage are so large that a single study could not discover all. Again, due to limited resources and time this study could only sample six branches of commercial bank of ethiopia even though the study could have covered a wide setting.

This study also investigates the dimensions of e-banking service quality that has major effects on customer satisfaction of the Commercial bank of Ethiopia. But, the variables included in the study were not exhaustive. Future researchers could include other variables which are not included under this study.

In view of the above, the researcher recommends that funds be made available for the study to be replicated in the other banks since the findings of the current study indicated that there are varied challenges as well as advantages with electronic banking services. Recommendations from such a study would lead to a much better administration and patronage of electronic banking product for economic growth and development.

References

- Abenet, Y. (2010). Key Factor that Determine Adoption of Internet Banking in Ethiopia.
- Abreham, H. (2012). Challenges and Opportunities of Adapting Electronic Banking in Ethiopia.
- Afsar. (2010). Determinants of Customer Loyalty in The Banking Sector: The Case of Pakistan. *African Journal of Business Management*, 4, 1040-1047.
- Ahmed, B. (2005). The Impact of E-Banking on Customer Satisfaction. (University of Zaria Abuja Nigeria).
- AlaEddin, M., & Hasan, A. (2011). E-banking Functionality & Outcomes of Customer Satisfaction: An Emperical Investigation. *International Journal of Marketing Studies*, Vol. 3(1).
- Alagheband, P. (2006). *Adoption of Electronic Banking Service by Iranian Customers*. Retrieved September 10, 2011, from <http://ww.epubl.ltu.se:1653-0187/2006/49/LTU-PB-EX-064SE>.
- Allen L. And Rai A. (1996). Operational Efficiency in Banking: An International Comparison. *Journal of Banking and Finance*, 20, 655-672.
- Angur M.G., Natarajan R., and Jahera J.S. (1999). Service Quality in the Banking Industry. *International Journal of Bank Marketing*, Vol. 17 No.3, 116-23.
- Assefa, M. (2013). The Impact of Electronic Banking on Customer Satisfaction in Ethiopian Bank Industry. MBA Thesis, Faculty of Business & Economics University of Gondar.
- Abor, J., (2004). *Technological innovations and banking in Ghana: An evaluation of customers' perceptions*: American Academy of Financial Management, 1. [Online] Available: <http://www.financialcertified.com/armstrong.html>. Accessed on May 6, 2015.
- Ahasanul, H., Ahmad Z. H., Abu H. D. (2009). *Issues of E – Banking transaction: An Empirical Investigation on Malaysian Customers perception*. *Journal of Applied Sciences*, 9(10), 1870 - 1879. No.3, pp. 240-250.

- Balachandher K. G., Santha V, Norhazlin I. and Rajendra P, (2001).*Electronic Banking in Malaysia: A Note on Evolution of Services and Consumer Reactions*”
- Bedi, M. (2010). An Integrated Framework for Service Quality, Customer Satisfaction and Behavioral Responses in Indian Banking Industry: a Comparison of Public & Private Sector Banks. *Journal of Service Research, Vol. 10 No. 1*, pp. 157-72.
- Bultum, A. G. (2014, June). Factors Affecting Adoption of Electronic Banking System in Ethiopia. *Journal of Manegement Information System & E-commerce, Vol. 1(1)*.
- Caruana, A., & Malta, M. (2002). Service Loyalty - The Effect of Service Quality and the Mediating Role of Customer Satisfaction. *Europian Journal of Marketing, Vol. 36 No. 7/8*, pp. 811-828.
- Classens, S., Glaessner, T., & Klingebiet. (2002). E-Financance in Emerging Markets: Is Leap Fogging Possible? World Bank Financial Sector Discussion.
- Cochran (1977) ., formula to calculate a representative sample for proportions as:
- David, J. R. (2010). Marketing Metrics: The Definitive Guide to Measuring Marketing Performance. *Pearson Education*. New Jersey, Upper Saddle River: Inc.
- Dhandabani, S. (2010). Linkage Between Service Quality and Customer Loyalty in Commercial Banks. *International Journal of Management & Strategy, Vol. 1 No. 1*.
- Daft L, and Richard L., (1982).*Bureaucratic Versus Non bureaucratic Structure and the Process of Innovation and Changes*. In Research in the Sociology of Organisations Vol. 1, pp 129-166.
- Daniel, E. (1999). *Provision of Electronic Banking in the UK and the Republic of Ireland*, International Journal of Bank Marketing, Vol. 17, No. 2, pp. 72–82.
- DeYoung, R. (2001). *The financial performance of pure play Internet banks*. Economic Perspectives, 25, (1), 60-75
- Earl, M. (2000).*Evolving the E-Business*, Business Strategy Review, Vol.11, No. 2, pp 33-38.

- Essinger, J. (1999). *The virtual banking revolution: the customer, the bank and the future* 1st ed. London, UK: International Thomson Business Press
- Furs, K., & Nolle, D. (2002). Internet banking: developments and prospects, working Paper from office of the comptroller .
- Flavian, C., Torres, E., and Guinaliu, M. (2004). *Corporate image measurement: a further problem for the tangibilization of internet banking services*. *International Journal of Bank Marketing*, 22 (5), 366-84.
- Garedachew, W. (2010). Electronic Banking in Ethiopia - Practice, Opportunities and Challenges. Addis Ababa, Ethiopia. Retrieved from <http://ssrn.com/abstract+1492006>
- Garvin , D. (1987). Computing on the Eight Dimentions of Quality. *Harvard Business Review*, Vol. 65 No.6, pp. 101-109.
- Gerrard, P., & Cunningham, J. (2006). The diffusion of internet banking among Singapore consumers. *International Journal of Bank Marketing*, Vol. 21(1), pp. 16-28.
- Gan, C and Clemes, M. (2006). *A log it analysis of electronic banking in New Zealand*. *International Journal of Bank Marketing*, 24 (6), 360-383
- Hua, G. (2009). An Experimental Investigations of Online Banking Adoption in China. *Journal of International Banking and Commerce*, Vol. 14.
- Jannatul, M. N. (2009). E-banking and Customers' Satisfaction in Bangladish: An Analysis. *International review of business research papers*, Vol. 6(4), pp. 145-156.
- Jemal, A. (2004). Retail Banking and Customer Behaviour: A Study of Self- Concept, Satisfaction And Technology Usage. *The International Review of Retail*, Vol. 14(6).
- Johnston, R. (1997). Identifying the Cretical Determinant of Service Quality in Retail Banking: Importance & Effect. *International Journal of Bank Marketing*, Vol. 15(4).
- Joseph, M., McClure, C., & Joseph, B. (1999). Service Quality in The Banking Sector: The Impact of Technology on Service Delivery. *International Journal of Bank Marketing*, Vol. 17(4), pp.182-91.

- Jun, M., & Cai, S. (2001). The Key Determinants of Internet Banking Service Quality: A Content Analysis. *International Journal of Bank Marketing*, Vol.19(7), pp. 276-291.
- Jun, M., Peterson, R., Zsidisin, G., & Daily, B. (1999). Service Quality Perceptions in the Banking Industry: Major Dimensions. *Journal of Business Strategies*, Vol. 16(2).
- Keiningham, T. (2005). Does Customer Satisfaction Lead to Profitability? The Mediating Role of Share of Wallet. *Journal of Marketing*, Vol. 15(2), pp. 172-181.
- Kerem, K. (n.d.). Adoption of Electronic Banking: Underlying Consumer Behavior & Critical Success Factors Case Study of Estonia. *The 2003 Conference of the Technology & Everyday Life Network*. London U.K.
- Khalil, & Pearson. (2007). The Influence of Trust on Internet Banking Acceptance. *Journal of Internet Banking & Commerce*, Vol. 12(2).
- Kolter, & Armstrong. (1998). *Making Management*. New Delhi: Printing Hall of India PLC.
- Kumar, M., Kee, F., & Charles, V. (2010). Comparative Evaluation of Critical Factors in Delivering Service Quality of Banks: An Application of Dominance Analysis in Modified SERVQUAL Model. *International Journal of Quality & Reliability Management*, Vol. 27(3), pp. 351-77.
- Kumar, M., Kee, F., & Manshor, A. (2009). Determining The Relative Importance of Critical Factors in Delivering Service Quality Of Banks: An Application of Dominance Analysis in SERVQUAL Model. *Journal of Managing Service Quality*, Vol. 19(2).
- Lassar, W., Manolis, C., & Winsor, R. (2000). Service Quality Perspectives & Satisfaction in Private Banking. *The Journal of Service Marketing*, Vol.14(3), pp.244-71.
- Leow, Hock Bee (1999), "New Distribution Channels in banking Services. Banker's Journal Malaysia, No.110, June 1999, p.48-56.
- Leelapongprasut, Prasong, P., & Natsapun, P. (2005). A Quality Study of Internet Banking in Thailand.

- Malak, J. (2007). Readiness of the Palestinian Banking Sector in Adopting the Electronic Banking System: Exploratory Study, Ma Thesis, The Islamic University of Palestine.
- Mols, N. (1998). The Behavioral Consequence of PC Banking. *International Journal of Banking*, Vol.16(5), pp. 195-201.
- Mouton, S.,(2001): *Scientific Social Survey and Research*, Tokyo, Prentice Hall, INC
- Naeem, H., & Saif, I. (2009). Service quality & its Impact on Customer Satisfaction: An Empirical Evidence from The Pakistani Banking Sector. *The international Business & Economics Research Journal*, Vol. 8(12), pp.99.
- Oliver, John, A., & Miller. (1972). Consumer Expectations, Product Performance and Perceived Product Quality. *Journal of Marketing Research*, pp. 19-21.
- Parasuraman, A., Zeithaml, V., & Berry, L. (1985). A Conceptual Model of Service Quality & its Implications for Future Research. *Journal of Marketing*, Vol. 49.
- Parasuraman, A., Zeithaml, V., & Berry, L. (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, Vol. 64.
- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H. and Pahnila, S. (2004). *Consumer acceptance of online banking: an extension of the technology acceptance model*, Internet Research, Vol. 14 No. 3, pp. 224-35
- Rose, Peter S., (1999) “*Commercial Bank Management*”(4th Ed), Irwin/McGraw- Hill, Boston, USA.
- Rikya, N.N(2007). *Intuitionall Lending and Financing Policy for SMEs in Bangladesh*
- Rotchanakitumnuai, S. and M. Speece (2003).*Barriers to Internet Banking Adoption: aqualitative study among corporate customers in Thailand*. International Journal of Bank Marketing, vol. 21, no.6/7, pp. 321-23.
- Sathye, M. (1999). Adoption of Internet banking by Australian consumers: an empirical investigation. *International Journal of Bank Marketing*, Vol. 17(7), 324-34.

- Shittu, O. (2010). The Impact of Electronic Banking in Nigeria Banking System.
- Sullivan R. and Wang Z. (2005) *Internet Banking: An exploration in Technology* Vol. 17, No. 7, pp. 324-334, MCB University Press.
- Tefere,S. (2013, December). Prospects & Changes of Private Commercial Banks in Ethiopia. Department of Economics Unity University.
- Thakur, S. (2011). Service Quality, Customer Satisfaction & Customer Loyalty: A Study with Special Reference to Indian Banking Industries. *The Journal of Sri Krishna Research & Educational Consortium, Vol. 1(5)*, pp. 83-93.
- Tiwari, R., & Buse, S. (2007). *The mobile Commerce Prospects: a strategic analysis of opportunities in the banking sector*. Hamburg University Press.
- Tavakol, M & Dennick, R. (2011). Making sense of cronbach's alpha, international journal of Medical education. 2. P. 53-55
- Tse, D., & Wilton, P. (1988). Models of Customer Satisfaction Formation: An Extension. *Journal of Marketing Research, Vol. 25(2)*, PP. 204-12.
- Timothy T. (2012). *Electronic Banking Services and Customer Satisfaction in the Nigerian Banking Industry*, International Journal of Business and Management Tomorrow, Vol.2, No. 3, (2012) 1-8
- Turban, D. (2008). *Electronc Commerece: A manegerial Perspective* (4th ed.). Prentice Hall.
- Westbrook, & Robert, A. (1980). A Rating Scale for Measuring Product/Service Satisfaction. *Journal of Marketing*, pp. 68-72.
- Wolfenbarger, M., & Gilly, M. (2002). Dimensionalizing, Measuring & Predicting Quality of The E-tail Experience, Working Paper, Marketing Science Institute, Cambridge, MA.
- Wondossen, T., & Tsegai, G. (2005). E-Payment: Challenges & Opportunities in Ethiopia. *Economic Commission for Africa*. Addis Ababa, Ethiopia.
- Wind, J. (2001): *Digital Marketing*, Wiley Publication . New York

Yang, Z., Jun, M., & Peterson, R. (2004). Measuring Customer Perceived Online Service Quality. *International Journal of Operation & Production Manegement*, Vol. 24(11).

Yang, Z., & Jun, M. (2002). Consumer Perception of E-Service Quality: From Internet Purchaser And Non-Purchaser Perspectives. *Journal of Business Strategies*, Vol. 19(1).

Zeithaml, A. A. and Bitner, M. J. (2000). *Service Marketing: Integrating Customer Focus across the firm*. Second Edition. New York: Irwin McGraw-Hill.

Zeithaml, V.A., Parasuraman, A., and Malhotra, A. (2000). *A conceptual framework for understanding e-service quality: implications for future research and managerial practice*. Marketing Science Institute and Dell star, working paper.

Zikmund, 2000, Bussiness research methods, 6th Ed., Dryden (Harcourt) fourth, Orlando

APENDIX 1

A questionnaire for customers

Addis Ababa University School of Commerce

Marketing Management Post Graduate Program

Dear respondents,

I am attending a post graduate program in Marketing Management at Addis Ababa University School of Commerce (AAUSC). I am doing my dissertation titled “**the effect of e-banking attributes on customer satisfaction: the case study of Commercial Bank of Ethiopia**” in partial fulfillment of a post graduate degree in Marketing Management.

This questionnaire is intended to gather data on the topic selected for study. To make this research work successful your contribution through attempting the entire question will have a paramount importance. Therefore the researcher would like to appreciate your contribution from the outset.

Here I kindly request you to attempt all the questions in the questionnaire to meet the aim of the study. Whatever information is provided will be treated with utmost confidentiality and strictly will be used for academic purpose only. There is no need to write your name.

I thank you in advance!

Mekides Adugna

Tell: 0909601210

If you have any question with regard to the questionnaire please contact me using the above mentioned address.

Part I: General Information

Please, provide your response by putting () mark in the space provided.

Please put right mark (?) in front of your choice box that express yourself

1. Gender: Male Female

2. Age:

1. 18-25

2. 36-50

3 .> 50

3.Education level

1.Primary school

2.high school

3.diploma

4.degree

5.master degree or above

4. Job:

1. student

2. employee at government
or private organization

3. self employee

4. not employed

5. Which type of electronic banking service delivery do you use?

1.ATM 2. POS 3. Mobile banking

4.Internet banking

Part II: customers feeling about selected e banking attributes.

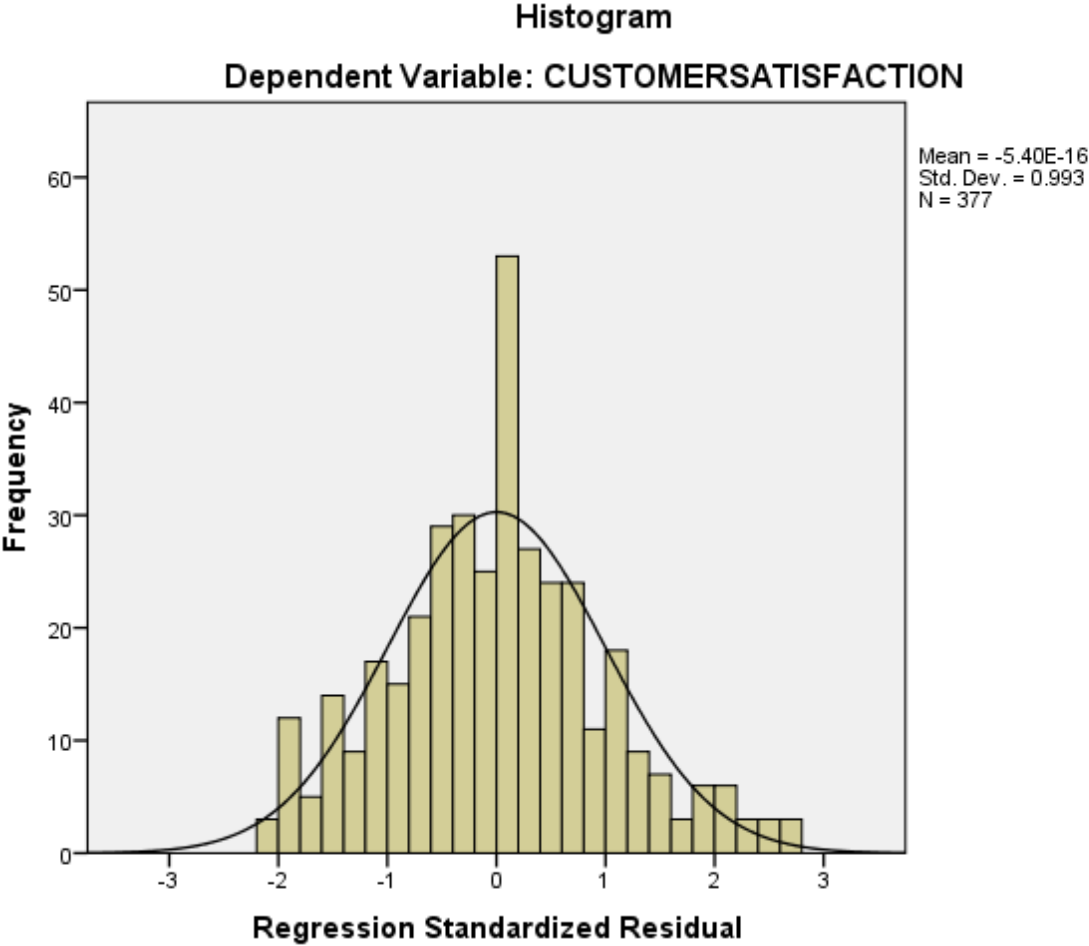
Rating scale

- 1. Strongly Disagree 2. Disagree 3. Indifferent 4. Agree 5. Strongly Agree**

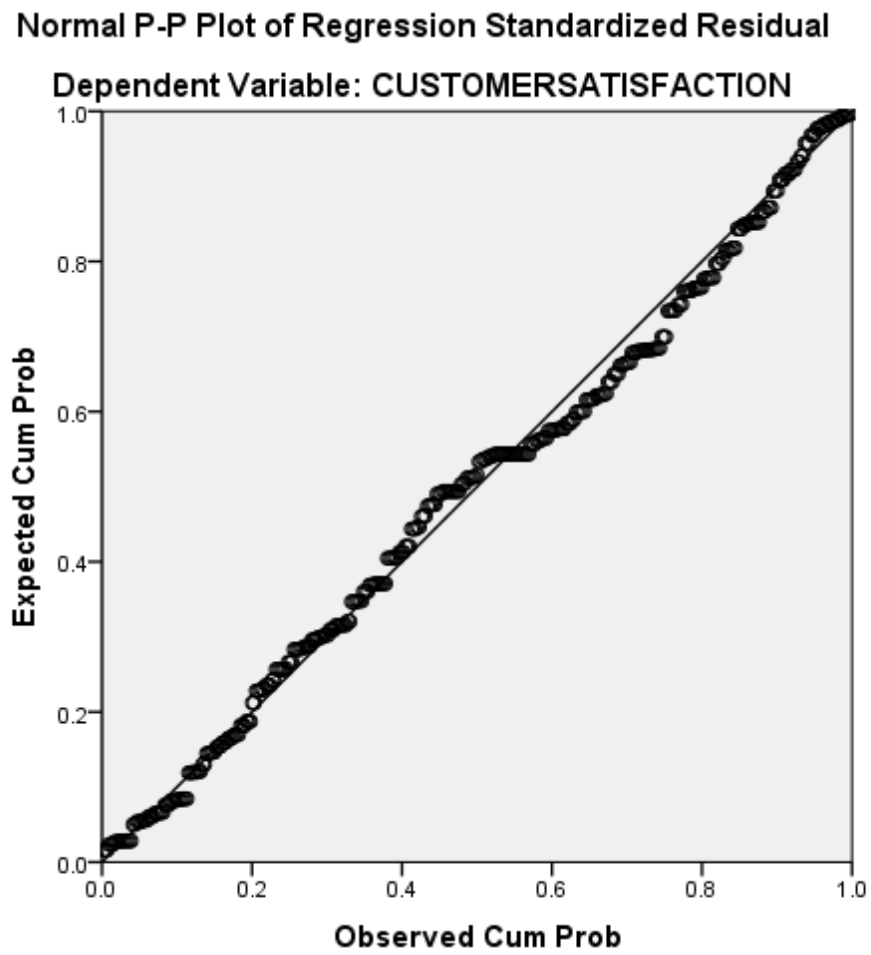
No.	Dimensions	Strongly Disagree	Disagree	Indifferent	Agree	Strongly Agree
<i>A. Reliability</i>		1	2	3	4	5
1	E-banking completes a task accurately.					
2	E-banking delivers the service exactly as promised.					
3	E-banking performs the service right at the first time.					
<i>Transactions efficiency</i>						
1	E-banking provides complete help function.					
2	Transaction process is fast.					
<i>Service Security</i>						
1	E-banking keeps accurate record of transaction.					
2	E-banking provides security for transaction data and privacy.					
3	Feel safe when using e-banking.					
4	Can check validity and detail of past transaction every time.					
<i>Ease of use</i>						
1	Easy to find information in the e-banking system.					
2	E-banking is easy to use.					
3	The language in e-banking displays is easy to understand.					
4	Information and text are clear and easy to understand.					
5	E-banking system provides clear instruction.					
<i>Performance</i>						
1	E-banking is provided in multi-languages.					
2	E-banking provides 24 hours -7 days service.					
3	E-banking allows transferring between the different banks.					
<i>Customer satisfaction</i>						
1	I am satisfied with the reliability of the e-banking services of CBE.					
2	I am satisfied with the transaction efficiency of					

No.	Dimensions	Strongly Disagree	Disagree	Indifferent	Agree	Strongly Agree
	the e-banking services of CBE.					
3	I am satisfied with the security of the e-banking services of CBE.					
4	I am satisfied with the ease of use of the e-banking services of CBE.					
5	I am satisfied with the overall performance of the e-banking services of CBE.					

APENDIX 2 : HISTOGRAM FOR NORMALIY TEST OF THE DATA



APENDIX 3: NORMAL P-P PLOT TO TEST NORMALITY OF THE DATA



APENDIX 4:MODEL SUMMERY

Model Summary^b

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.770 ^a	.593	.587	.63642	1.920

a. Predictors: (Constant), PERFORMANCE, RELIABILITY, SERVICESECURITY, TRANSACTIONEFFICENCY, EASEOFUSE

b. Dependent Variable: CUSTOMERSATISFACTION

APENDIX 5: ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	218.576	5	43.715	107.930	.000 ^b
	Residual	150.267	371	.405		
	Total	368.843	376			

a. Dependent Variable: CUSTOMERSATISFACTION

b. Predictors: (Constant), PERFORMANCE, RELIABILITY, SERVICESECURITY, TRANSACTIONEFFICENCY, EASEOFUSE