

**IMPACT OF E-BANKING SERVICE ON CUSTOMER  
SATISFACTION COMMERCIAL BANK OF ETHIOPIA IN  
JIMMA CITY**



**BY  
TAMIRU GIZAW**

**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF  
JIMMA UNIVERSITY IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE MASTER OF BUSINESS ADMINISTRATION  
(MBA)**

**JIMMA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES**

**OCTOBER, 2017  
JIMMA, ETHIOPIA**

**IMPACT OF E-BANKING SERVICE ON CUSTOMER  
SATISFACTION COMMERCIAL BANK OF ETHIOPIA IN  
JIMMA CITY**

**BY**

**TAMIRU GIZAW**

**UNDER THE GUIDANCE OF  
CHALCHISSA AMENTIE (Ass.Prof)**

**And**

**SEID YIMAM (MBA)**

**A THESIS SUBMITTED TO JIMMA UNIVERSITY SCHOOL OF  
GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS  
ADMINISTRATION (MBA)**

**JIMMA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES**

**OCTOBER, 2017**



**Jimma University**  
**School of Graduate Studies**

This is to certify that the thesis undertaken by Tamiru Gizaw entitled “Impact of E-banking Service on Customer Satisfaction: A study on Commercial Bank of Ethiopia in Jimma City”.

A Thesis submitted in partial fulfillment of the requirements for the degree of Masters of Business Administration (MBA) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

**Signed by the Examining Committee:**

_____	_____	_____
External Examiner	Signature	Date
_____	_____	_____
Internal Examiner	Signature	Date
_____	_____	_____
Main Advisor	Signature	Date
_____	_____	_____
Co-Advisor	Signature	Date
_____	_____	_____
Chair Person	Signature	Date
_____	_____	_____

Chair Person of Department or Graduate Program Coordinator

## DECLARATION

I hereby declare that this thesis entitled “Impact of E-banking Service on Customer Satisfaction: A study on Commercial Bank of Ethiopia in Jimma City” has been undertaken by me under the guidance and supervision of Chalchissa Amentie (Ass. Prof.) and Mr. Seid Yimam (MBA).

This thesis is my original work and has not been presented for the award of any degree or diploma to any university or institutions.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Tamiru Gizaw Benti

## CERTIFICATE

As university advisors, we hereby certify that we have read and evaluated the thesis undertaken by Tamiru Gizaw under our guidance, which is entitled “**Impact of e-banking services on customer satisfaction: a study on commercial bank of Ethiopia in Jimma city**”. We recommend that the thesis to be submitted to school of graduate studies of Jimma University with our approval as it fulfill the requirements to award the degree of Masters of Business Administration (MBA).

**Main Adviser’s Name**

**Date**

**Signature**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Co- Adviser’s Name**

**Date**

**Signature**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## ABSTRACT

*The study focused on impact of e- banking service quality on customer satisfaction in the commercial bank of Ethiopia. The main objective of the study was to identify the relationship between electronic services quality and customer satisfaction using the seven quality dimension model such as reliability, Transactional efficiency, customer support, services security, easy use, performance and service content. Explanatory research design was used to find out how electronic services quality affects customer satisfaction in commercial bank of Ethiopia. For data collection, primary and secondary data were used. The simple random sample techniques were used in selecting the respondents. A sample size of 387 was used for the study and the data collecting was analyzed by using SPSS version 21. For data analysis both descriptive and inferential statically were used. Descriptively tables, percentages, mean and standard deviations were used to analyses demographic variables. Inferentially, regression and correlation were used. Regression was employed to test the impact of e-banking services quality on customer satisfaction while correlation was used to determine the strength of the relationship of the variables. The research findings from the hypothesis test using the electronic service quality dimension shows that strong predictor of customer satisfaction in commercial bank of Ethiopia with R-Square 0.694. The other findings indicate that performance, easy use, customer support and service content are all positively correlated and significant at 1% level. Additionally the regression analysis indicates reliability, transaction efficiency and service security all are negatively correlation with customer satisfaction and significance at 5% level. Finally, based on the findings of the study, it was recommended that there is the need to train majority of the e-banking user's people on internet banking.*

**Key words: E-banking, Customer Satisfaction, Service Quality dimension**

## ACKNOWLEDGEMENT

First, I would like to thank almighty God, the compassionate, the most merciful and source of knowledge and wisdom, who bestowed upon me the health, the power of communication and the audacity to accomplish this thesis.

I would like to sincerely thank my advisor Chalchissa Amentie (Ass.Prof) and Mr. Seid Yimam for constructive comments, valuable suggestions and good guidance.

I also would like to thank to the staff and management of all the four commercial bank of Ethiopia in Jimma city for their response to research questionnaire and interview.

Lastly, but not the least, my appreciation also goes to my spouse Burtukan Girma for her unflinching support me.

# Table of contents

ABSTRACT .....	1
ACKNOWLEDGEMENT .....	2
Table of contents.....	3
List of Tables .....	6
List of Figures.....	6
Acronyms.....	7
CHAPTER ONE.....	1
INTRODUCTION .....	1
1.1. Background of the Study .....	1
1.2. Statement of the problem.....	4
1.3. Objective of the study .....	5
1.3.1. General Objective .....	5
1.3.2. Specific objective of the study.....	5
1.4. Hypothesis.....	5
1.5. Significance of the study.....	6
1.6. Scope of the study .....	6
1.7 .Limitation of the study .....	7
1.8 .Organizations of the paper .....	7
CHAPTER TWO .....	8
REVIEW RELATED LITRATURE .....	8
2.1 THEORETICAL REVIEW .....	8
2.1.1 Forms of E-Banking .....	9
2.1.2. Benefits of Electronic Banking .....	13
2.1.3. Customers and internet banking.....	15



2.1.4 .Impact of electronic banking.....	16
2.1.5. Service Quality .....	17
2.1.6. Customer Satisfaction .....	18
2.1.7. Customer Satisfaction in Banking.....	19
2.1.8. The Relationship between Service Quality and Customer Satisfaction .....	20
2.1.9. Measuring Customer Satisfaction .....	21
2.1.10. Definition of independent Variables .....	22
2.1.9. Demographic characteristics of internet banking adopters .....	25
2.2. Empirical Review .....	27
2.2.1 CONCEPTUAL FRAMEWORK .....	31
2.2.2 Research Hypothesis .....	32
CHAPTER THREE .....	33
RESEARCH METHODS .....	33
3.1. Research Design and Research approach.....	33
3.2. Source and Types of Data .....	33
3.3 Target Population .....	34
3.4. Sample Techniques and sample size .....	34
3.5. Data collection tools .....	36
3.6. Data analyses Techniques .....	36
3.7. Research Model .....	36
3.8 Cronbach’s Alpha Test of Reliability.....	37
CHAPTER FOUR .....	38
RESULTS AND DISCUSSION.....	38
4.1. Descriptive Findings.....	39
4.1.1. Demographic Profile .....	39
4.2. Mean and Standard Deviation Of the variables .....	40
4.3. Inference Findings .....	43

4.3.1. Chi-Square Test.....	43
4.3.2. Regression Analysis .....	44
4.3.3. Diagnosis Test .....	44
4.3.3.1. Multicolinearity Test between Study Variables.....	44
4.3.4. Correlation Matrix between Customers Satisfaction of e-banking and explanatory variables.....	48
4.3.5. Regression Analysis between Customer Satisfaction on E-Banking and Explanatory Variables. ....	49
4.3.6. Multiple Regression Analysis .....	50
4.3.7. Hypotheses test.....	53
CHAPTER FIVE .....	56
SUMMARY, CONCLUSION AND RECOMMENDATION .....	56
5.1. Summary of the findings .....	56
5.2. Conclusion .....	56
5.3. Recommendations .....	57
References.....	59
APPENDIX-A .....	69
APPENDIX-B.....	72

## List of Tables

Table 3.1: Population and Sample Size Determination.....	35
Table 3.2. Cranach’s Alpha Test of Reliability for each variable.....	37
Table 4.1. Demographic characteristic table .....	39
Table 4.2 Mean and Standard deviations .....	41
Table 4.3: Chi-Square test for association between demographic characteristic and customer satisfaction of E-banking .....	43
Table 4.4 Correlation Matrix between Explanatory Variables.....	45
Table 4.5 Correlation Matrix between (CSEB).....	48
Table 4.6: Model Summer .....	49
Table 4.7: ANOVA Analysis.....	50
Table 4.8 Regression Coefficient Analysis of the Model .....	51

## List of Figures

Figure 1: conceptual framework.....	32
Figure 4.1: Linearity Test .....	46
Figure 4.2: Normality Test .....	47

## **Acronyms**

ATM	Automated Teller Machine
POS	Point Of Sale
SMS	Shortages Message Services
CSEB	Customer Satisfaction E-banking
SERQUAL	Service Quality
ICT	Information and Communication Technology
EFT	Electronic Fund Transfer
TA	Technology Assistance
TOE	Technology Organization Environment
ANOVA	Analysis of Variance
SPSS	Statistical Package for Social Science

# CHAPTER ONE

## INTRODUCTION

### 1.1. Background of the Study

Technology played vital role in the today's world. Internet has made this world a global village and the same has revolutionized the banking industry. Conversion from the manual based ledger system to systemized process and the overture to internet-based facility has given a new facet to the banking sectors. The completion in the banking sector augmented over the last few years and to stay competitive, banks are espousing novel tools and techniques to attain customer retention and satisfaction and E-banking is one tool towards it (Karjaluo, Mattila, & Pento, 2002). The banking industry and its environment in the 21<sup>st</sup> century are highly complex and competitive and therefore the need for information and communication technology to take Centre stage in the operations of banks (Stevens, 2002).

E-banking plays a crucial role in the banking industry by creating value for banks and customers. E-banking has enabled banking institutions to compete more effectively in the global environment by extending their and services beyond the restriction of time and space (Turban, 2008).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, thereafter becoming more important (Allen L. & Rai A., 1996). It has been widely used in developed countries. However, in developing economies, the spread is much limited. As suggested by Classens, Glaessner, & Klingebiet (2002), developing countries in general have an advantage as they can learn from the experience of advanced economies.

E-banking is critical in the transformation drive of banks in areas such as products and services and how they are delivered to customers. Thus, it is seen as a valuable and powerful tool in the development, growth, promotion of innovation and enhancing competitiveness of banks (Gupta, 2008; Kamel, 2005). Given the significant role of e-

banking in the developmental drive of banks, information technology has been found to lead to improvement in business efficiency and service quality and hence attract customers as well as retain those (Kannabiran & Narayan, 2005). To realize the contributions of internet-banking to the growth of a country, Nupur (2010) noted that there was the need for the increase in internet access, development of new online banking features, growth of household internet usage, and the development of a good legal and regulatory framework. The advent of electronic banking in general and internet banking in particular has led to the development of service quality (SERVQUAL) dimensions to measure the extent of customers' satisfaction. Service quality developed by Zeithaml (1988) is one of the more widely used instruments for assessing customer satisfaction. The extensive use of the SERVQUAL instrument since the rise in the usage of internet according to Mols (2000) is because internet based home banking might bring a radical change in the way banks maintain their relationships with their customers.

The rise in the information communication Technology has significant impact on services in most of the organization adopting information system (wisdom, 2012). New information technology and emerging business forces have triggered a new wave of financial innovation, electronic banking (wu et al 2006). Electronic banking has benefited banks as competitive advantage for achieving higher efficiency, control of operation and reduction of cost by replacing paper based and labor intensive methods with automated process, which will lead to higher productivity and profitability. The term electronic banking refers to the users of computer and telecommunication to enable banking transaction to be done by computer or telephone instead of human interaction (Okoro, 2014). Khrawish and Al-Sadi (2012) also defined electronic banking as the adaption of electronic means in the delivery of banking product and services. Such product and services include deposit taking, lending and payment products and provision of other electronic payment product and services such as electronic money. From the definition we understand that electronic banking is delivery of banking products services to the customers and general electronically through the use of electronic banking instruments or products like Automated Teller Machine (ATM), Mobile, internet and point of Sale (POS) terminal among others. Sumrat et al (2011) argued that transformation from

traditional to electronic means has not affected banks in the negative way in fact, profit trends to increase as number of transaction increases. E- Banking appeal as well its product development is rapidly growing and the global acceptance has strongly encouraged its penetration (Abaenew et al, 2013).

Electronic banking contributes significantly to the distribution channels of banks such as automated teller machine (ATM), Phone –banking, Tele-banking, PC-banking and now internet banking (Chang, 2003). In addition, transfer of funds, viewing and checking savings account balances, paying mortgages, paying bills and purchasing financial instruments and certificates of deposits processes have improved significantly as a result of internet banking (Mohammed et al., 2009). This implies that, e-banking has resulted in efficiency in service delivery in the banking sector because customers can transact business from one side of the country to another and from both long and short distance. According to Robinson (2000), online banking ensures customer satisfaction as it extends financial services to customers outside the banking hall. Similarly, e-banking has provided banks with a large customer base as it has resulted in increased customer loyalty and satisfaction (Oumlil & Williams, 2000). Customer satisfaction plays great role in the success of business strategies (Gil and Cervera, 2008), customer satisfaction helps keep customer from request services or product from competitors. Customer satisfaction helps organization and business to increase their return and achieve competitive advantage (Iewin, 2009). In addition, customers satisfaction leads to long term profit by making the customer loyal to organization (Joch, 2003), so customer satisfaction stems, from recognition companies that they have to interact with changing environment consistent with the behavior of customer to maintain the survival and continuity of firms in competitive markets (Smith, 1996). In this digital age, interest has increased in the financial services over past the past year that require development and modernization, which become a major challenges for marketers and academicians unlike promoting banks to seek improve their electronic services offered to customers in order to maintain current customers, and trying to attract new customers, and even to make banks able to distinguished in providing its services, they must keep pace with technology.

In Ethiopia, online banking is infant stage. Even though, the concept of online banking implemented in Ethiopia with a single services of SMS message during late 2008. It does not show that much improvement as its age. Now a day some banks are adopting e-banking system which is the state of the art. In addition, many banks are making what seem like huge investments in technology to maintain and upgrade their infrastructure, in order not only provide new electronic information based services, but also to manage their risk position and pricing. The earliest forms of electronic and communication technology used mainly in Ethiopia banking offices were automation.

## **1.2. Statement of the problem**

In a relatively short period of time, the internet has moved from an occasional tool to one of the principal ways we communicate, entertain ourselves, and do work. And all that time we spend online has to come at the expense of something else. One main advancement technology has brought to us is the introduction of online banking or e-banking, Traditional banking is characterized by physical decentralization, with branches scattered around populated areas to give customers easy geographical access (Ainin et al, 2005). E-banking does away with the need for most visit to the bank. However, according to the Locket and Littler (1997), physical banks assure customers that their banks has substantial resources and guarantee the security of their savings. A study indicated the electronic banking has been available in the UK since the early 1980s. It is not clear whether all customers want or are comfortable with electronic banking (Daniel & Storey, 1997). Technology is changing at rapid pace making it difficult for both the customer and the bank to determine the best approach. Particular problems arise with trying to integrate new channels with legacy channels. It is for this reason that academic research is needed in this news emerging delivery channel (Daniel & Storey, 1997).

Similarly, in Ethiopia, most banks practicing online banking are facing challenges such as customer as customer preferences of the online banking facility, very poor connection, and trust of the people in the modern tools, convenience of clients to utilize and adopt online banking facility. While numerous study have been undertaken to examine issues in



the wider context of Ethiopia has been rather limited. This study attempted to identify the impact of e-banking services on the customer satisfaction, in case of Commercial bank of Ethiopia Jimma city.

### **Basic questions**

H1: e-banking reliability service positive impact on customer satisfaction.

H2: e-banking transaction efficiency positive impact on the customer satisfaction.

H3: e-banking customer support services positive impact on the customer satisfaction.

H4: e-banking service security services positive impact on the customer satisfaction.

H5: e-banking easy use services positive impact on the customer satisfaction.

H6: e-banking performance services positive impact on the customer satisfaction.

H7: e-banking service content services positive impact on the customer satisfaction.

H8: demographic variable associate with e-banking services on the customer satisfaction.

## **1.3. Objective of the study**

### **1.3.1. General Objective**

The main objective of this study is to identifying the impact of e-banking service quality dimensions on customer satisfaction in case commercial banks of Ethiopia Jimma town.

### **1.3.2. Specific objective of the study**

To analysis the impact of e-banking reliability service on customer satisfaction

To analysis the impact of e-banking transaction efficiency service on customer satisfaction

To analysis the impact of e-banking customer support service on customer satisfaction

To analysis the impact of e-banking easy use service on customer satisfaction

To analysis the impact of e-banking services security service on customer satisfaction

To analysis the impact of e-banking performance service on customer satisfaction

To analysis the impact of e-banking service content service on customer satisfaction

To identify the association of demographic variable with customer satisfaction

## **1.4. Hypothesis**

**H1:** To e-banking reliability service has positive impact on customer satisfaction

**H2:** To e-banking transaction efficiency service has positive impact on customer satisfaction

**H3:** To e-banking customer support service has positive impact on customer satisfaction

**H4:** To e-banking easy use service has positive impact on customer satisfaction

**H5:** To e-banking service security service has positive impact on customer satisfaction

**H6:** To e-banking performance service has positive impact on customer satisfaction

**H7:** To e-banking service content service has positive impact on customer satisfaction

**H8:** H8: To identify the association of demographic variable with customer satisfaction

### **1.5. Significance of the study**

The findings of this study are considered important to provide insight into the relationships between electronic banking services and customer satisfaction. Particularly, the study is significant because, provide crucial facts about the impact of electronic banking services on customer satisfaction and understand the impact of variable of electronic banking on customer satisfaction and how the banks overcome the impacts. The study would be used as sources of reference material besides suggesting areas where future research may be conducted. The last but not least the researcher would be benefit to the existing knowledge related to electronic banking and customer satisfaction in financial institution.

### **1.6. Scope of the study**

The scope of the study concentrates on two major areas. This comprises of the contextual and geographical scope of the study. Contextually, the research would emphasize on impact of electronic banking on customer satisfaction. There are numerous and emerging types electronic banking such as ATM (Automated Teller Machine), Internet banking, Mobile banking and POS (point of sale). There are many banks that offer electronic banking in Jimma town. Commercial bank of Ethiopia is selected among the banks because banks have been operating long enough to give academic insight on what the study seek to offer. On top of this commercial banks of Ethiopia the first public bank to adopt electronic banking.

Geographical scope of this study is situated within the commercial bank of Ethiopia in Jimma town. However banks of Ethiopia are many and it's practically impossible for the researcher to study the entire customer in banks. For this reason the scope encompasses on commercial bank of Ethiopia in Jimma town.

### **1.7 .Limitation of the study**

In assessing the impact of e-banking on customer satisfaction of Commercial Bank of Ethiopia in Jimma town which were chosen because these banks were the only banks that have started to provided electronic banking services to the customers. These study does not include who do not use the current e-banking services and limited to customer of commercial bank of Ethiopia due limitation of time and resources.

### **1.8 .Organizations of the paper**

The paper would be organized as follows; Chapter One contains back ground of the study, statement of the problem, general objective of the study, scope of the study, and significance of the study .Chapter two deals with review related literature and empirical review. Chapter three would include methodology of research design, method of data collection and sample size, research approach and analysis data and Cronbach's alpha reliability test. Whereas Chapter four deals with descriptive findings such as mean and standard deviation of variables and inference finding, such as chi-square test, correlation matrix, multicollinearity test, linearity test, normality test and multi linear Regression analysis. Lastly, chapter five will provide conclusions and recommendation.

# **CHAPTER TWO**

## **REVIEW RELATED LITRATURE**

### **2.1 THEORETICAL REVIEW**

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 or internet banking which is the use of the internet as a remote delivery channel for banking services (Furst & 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 transaction (payments, transfer, requests for services, etc) directly with a bank or with other financial services provider remotely via a telecommunication network (Yang, 1997). It should be noted that electronic banking is a bigger is a platform than just banking via the internet. E-banking could be defined as variety of platform such as internet banking or (online banking, TV-based banking, mobile banking, and PC (personal computer) banking whereby customers access these services using an intelligent electronic devices, like PC, personal digital assistant(PDA),Automated Teller Machine (ATM), Point of sale(POS),Kiosk, or touch tone telephone (Alagheband,2006). The bank uses online banking system, as it is one of the cheapest delivery channels for banking products (pikkarainen et al, 2004). such a services also saves the time and money of the bank with an added benefit of minimizing the likelihood of committing errors by bank tellers (Jayawardhena, 2000).The supply of electronic banking services enables banks to establish and extent their relationship with the customers (Robinson, 2000). There are other numerous advantages to banks that offered by online banking. Such as mass customization to suit the likes of each user, innovation of new products and services, more effective marketing and communication at lower cost (Tuchilla, 2000), development of non- core products such as insurance and stock brokerage as an expansion strategy, improved marketing image, better and quicker

response to market evaluation (Jayewardene and Foley, 2000).

## **2.1.1 Forms of E-Banking**

There are many electronic banking delivery channels to provide banking service to customers. Among them ATM, POS, Mobile banking, internet banking, Debit card and Credit card are the most widely used and discussed below.

### **2.1.1.1 Automated Teller Machine**

Automated Teller Machine (ATM) is an electronic machine in a public place, connected to a data system and related equipment and activated by a bank customer to obtain banking services without going in to the banking hall. It allows customers to access banking services such as withdrawals, transfers, inquiries about account balances, requests for cheque books, account statements, direct deposits, foreign Currency exchange etc. (Fenuga, 2010). Using an ATM requires an ATM card and a pass code, often referred to as a PIN (Personal Identification Number). The ATM is also called 24hour teller are electronic terminal which gives consumers the opportunity to bank at almost any time and one of the easiest and widely adopted retail electronic banking (Nyangosi et al .2009). it is described as combination of computer terminal, record keeping system and cash vault in one unit , permitting customers to enter the banks book keeping system with plastic card containing a personal identification number or purchasing a special code number into the terminal linked to the banks computerized record 24 hours a day (Rose, 1999). To withdrawal cash, making deposit or transfer funds between accounts a consumers need automated teller machine card and personal identification number. Once the customer login, access to transaction are displayed on the screen. It offers several retail banking services to customers. They also located outside of banks, and are also found airport, malls, and places far away from the home bank of customers. They were introduced first to functions as cash dispersing machine (Abor, 2004). Some ATM charge a usage fee for this services, with a higher free for consumers who do not have an account at their institution. If a fee is charged, it must be revealed on the terminal screen or on a sign next to the screen Rose (1999).ATM services have a lot of advantages. They include increase in productivity during banking hours if the services

are available in addition to the human tellers. They are cost –effective way of achieving higher productivity per period of time. According to Rose (1999), an ATM transaction is an average of about 6,400 per month compared to 4,300for human tellers. Furthermore, it saves customers time in in services delivery as alternative to queuing in bank halls, customers can invest such time saved into other productive activity (Abor, 2004). In addition, ATM continue to serve customers while human tellers stopped work, thereby increasing productivity of banks.

### **2.1.1.2. INTERNET BANKING**

Internet banking is conducted by completing bank transactions by directly accessing the bank through the internet. Nowadays, internet banking customers can access many different services online, which makes physical banks open even after office hours. Internet banking allows customers of a financial institution to conduct financial transactions on a secure website operated by the institution. Internet banking can be conducted either by accessing the internet with a computer or by using a phone that has internet features (Alabar & Timothy, 2012).

Broadly, the level of banking services offered through internet can be categorized in to three types: First, basic level are services is the banks website which disseminate information on different products and services offered to customers and members of public in general. It may receive and replay to customers queries through email. Second, simple transaction Websites which allows customers to submit their instructions, application for different services, queries on their account balance, etc but do not permit any fund based transaction on accounts. Third, level of internet banking services are offered by fully transactional websites which allows the customers to operate on their accounts for transfer of funds, payments different bills, subscribing to other products of the bank and to transact purchase and sale of securities. The above form of internet banking services is offered by traditional banks as an additional method of serving the customer. There are also banks that delivery channels. Some of these banks are known as virtual banks or internet banking and may not have any physical presence in a country despite offering different banking services (Adriana, 2006).

### **2.1.1.3. POINT OF SALE (POS)**

An electronic fund transfer at the POS is an on-line system that allows customers to transfer funds instantaneously from their bank account to merchant account when making purchases. POS uses debit card to activate an electronic fund transfer process. A point of sale transfer allows customers to pay for retail purchase with a check card, a new name for debit card Chorafas, (1988). Increased banking productivity results from the use of point of sale to services customers shopping payment requirements instead of clerical duties in handling cheques and cash withdrawal for shopping. Furthermore, the system continues after banking hours, hence continual productivity for the bank even after banking hours. It also saves customers time and energy in getting to bank branch or Automated Teller Machine for cash withdrawals which can be harnessed into other productive activity (Abor, 2004). Some banks issued international card (such as Visa card, Master card, etc.) to their customers. Such cards can be used wherever accepted, and payment on the cards can only be done through an ordinary domiciliary account of the card holder, or any other account that may be permitted. Some these cards are credit or debit cards.

### **2.1.1.4. Mobile banking**

Mobile banking (also known as M-banking ) is a term used for performing balance checks, Account transaction, payments, credit application and banking transaction through a mobile devices such as a mobile phone or personal Digital Assistant (PDA).The easiest 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 my included facility to conduct bank and stock market transaction, to administer account and to access customized information (Tiwari & Buse, 2007).

### **2.1.1.5 .Debit Cards**

A debit card (also known as a bank or cheque card) is a plastic card that provides alternative payments methods to cash when making purchase. Functionally, it can be called electronic cheques, as the funds are withdrawn directly from either the bank account or from the remaining balance on the card. In some cases, the cards are designed exclusively for use on the internet, and so no physical card (Mavri and Ioannou, 2006). In many country the use of debit card has becomes so widespread that their volume of use has overtaken or entirely replaced the cheque and, in some instance transaction. Like credit cards debit cards are used widely for telephone and internet purchase and unlike credit cards, the funds are transferred immediately from the bear's bank account instead of having the bearer pay back the money at a later date. Debit cards may also allow for internet withdrawal of cash, acting as the ATM cards for withdrawing cash and as a check guarantee card.

### **2.1.1.6. Credit Cards**

Credit cards are small plastic card issued to users as a system of payment. It allows its holder to buy goods and services based on the holder's promises to pay for those good and services. The issuer of the card creates a revolving account and grants a line of credit to the consumer (or the user) from which the user can borrow money for payment to a merchant or as cash advance to the users (Mavri &Ioannou, 2006). A credit card is different from a debit cards in that it does not withdraw money from the users account after transaction. The issuer lends money to customer to be paid to the merchant. Holders of the valid credit card have the authorization to purchase goods and services up to a predetermined amount, called credit limit. The vendor receives essential credit card information from the cardholder, the ban issuing the card actually reimburses the vendor, and eventually the cardholder repays the bank through regular monthly payments. If the entire balances are not paid in full, the credit card issuer legally charge interest fees on the unpaid portion.



### **2.1.2. Benefits of Electronic Banking**

The technological innovation has brought about several gains to the banking industry. Some of these can be identified as convenience to banking, enhanced customer access and awareness, speedy or faster process and transmission of information, reduction of fraud levels and improved risk management. Other benefits are global compliance that is, adopting trends to provide seamless and standardized services worldwide and easier marketing of banking services among others. Howcroft *et al.*, (2002) in a study, found that the most important factors encouraging consumers to use online banking are lower fees followed by reducing paper work and human error, which subsequently minimize disputes (Kiang *et al.*, 2000). Byers and Lederer, (2001) concluded that it was changing consumer attitudes rather than bank cost structures that determines the changes in distribution channels; they added that virtual banks can only be profitable when the segment that prefers electronic media is approximately twice the size of the segment preferring street banks. Convenience of conducting banking outside the branch official opening hours has been found significant in cases of adoption of e-banking. Banks provide customers convenient, inexpensive access to the bank 24 hours a day and seven days a week. Moutinho *et al.*, (1997) pointed out that each ATM could carry out the same, essentially routine, transactions as do human tellers in branch offices, but at half the cost and with a four-to-one advantage in productivity. Given that the ICT is now creeping into the banking industry in Ethiopia, its functions could not be completely regarded as substitute for teller in the banking hall. There are a number of times where the ATMs fail to function thus making the customer unable to access the service. Gerrard and Cunningham (2003) found a positive correlation between convenience and online banking and remarked that a primary benefit for the bank is cost saving and for the consumers a primary benefits is convenience.

Multi-functionality of an IT based services may be another feature that satisfies customer needs (Gerson, 1998). A reduction in the percentage of customers visiting banks with an increase in alternative channels of distribution will also minimize the queues in the branches (Thornton and White, 2001). Increased availability and accessibility of more self-service distribution channels help bank administration in reducing the expensive

branch network and its associate staff overheads. Bank employees and office space that are released in this way may be used for some other profitable ventures (Birch & Young, 1997). This ultimately leads towards improved customer satisfaction & White, 2001). A reduction in the percentage of customers visiting banks with an increase in alternative channels of distribution will also minimize the queues in the branches (Thornton and White, 2001). Increased availability and accessibility of more self-service distribution channels help bank administration in reducing the expensive branch network and its associate staff overheads. Bank employees and office space that are released in this way may be used for some other profitable ventures (Birch & Young, 1997).

The Internet increases the power of the customer to make price comparisons across suppliers quickly and easily. As a consequence, this pushes prices and margins downward (Devlin, 1995). Institutional encouragement of the use of IT-based services and IT service fees are another important dimension (Zhu *at al.*, 2002). Cantrell (1997) conducted a banking survey in the US and found that increases in service fees were one of the main driving forces behind the move of some large bank customers to smaller community banks.

Yakhlef (2001) pointed out that banks are responding to the Internet differently, and that those which see the Internet as a complement and substitute to traditional channels achieved better communication and interactivity with customers. Robinson (2000) argued that the online banking extends the relationship with the customers through providing financial services right into the home or office of customers. The banks may also enjoy the benefits in terms of increased customers' loyalty and satisfaction (Williams, 2000), Nancy *et al.* (2001) viewed the same situation differently and argued that customers like to interact with humans rather than machines. They found more possibilities for asking questions and believe that bank clerks are less prone to errors. It is thus essential that any face-to-face transactions are carried out efficiently and courteously. This increases the possibility of selling the customer another service that they need and also promotes a good image and enhances customer loyalty. The findings obtained by Nancy *et al.* (2001) suggest that, attitude is an important variable which influence the usage of e-banking

services such as telephone banking and ATM services. Therefore, customers who have negative attitude towards e-banking services especially individuals who cannot read and write, are less likely to use such services than those with positive attitude.

Polatoglu and Ekin (2001) found that low levels of email usage and a preference for doing over-the-counter transactions at bank branches are the main reasons for not using e-banking in Turkey. The opportunity to conduct a trial may help to convince reluctant customers (Black *et al.*, 2001). Boon and Ming (2003) concluded that banks in Malaysia should concentrate on enhancing their operation and product management through a mixture of branch banking and e-channels, like ATMs, phone banking and PC banking.

### **2.1.3. Customers and internet banking**

Lamb, et al. (2000, p.142) customer behavior as the acts of decision –making units (families as well as individuals) directly involved in obtaining and using need satisfying products and services, this also includes the decision –making process that precedes and determines these acts. These acts refer to activities like traveling to and from the stores, evaluation of both goods and services available in the market and the actual purchasing of goods. When referring to customers, Rice (1997), p.78) explains that customers are people who use services and products, and pay for those things. Customer behavior is about learning customers and their buying behavior. Schiffman and Kanuk (2000, P.8) explain that a customer is used to describe two kinds of customers, i.e. personal and business or organizational customers. Personal customers are customers, who buy goods and services for their own use, and business customers are those buying products, equipment's and services in order to run a business. Block and Roaring (1979, P132) define customer behavior as the acts of individual directly involved in obtaining and using economic goods and services. This includes the decision making process that consumers go through when buying goods with a better understanding of consumers behavior banks will be able to identify customer profiles. Beckett, et al. (2000, p.20) suggest that the types of financial product being purchased influences customer purchased behavior. Secondly, the emphasis on trust and having a relationship is also highly pertinent to the strategies of banks and other financial providers. Thirdly, the

ability to retain customers and increasing customers profitability is very important (Karialuoto, et al. 2002, p.263). According to Wang (2002, p.3) the emergence of internet banking has created highly competitive market conditions, which have a critical impact upon customer behavior. Internet banking providers must therefore attempt to better understand the factors affecting customer acceptance of internet banking. If they succeed, banks will be able to influence and even determine customer behavior which will become a major issue in creating competitive advantage in the future.

#### **2.1.4 .Impact of electronic banking**

According to M.M.Rahman (2008) in Bangladesh despite huge demand from the business community as well as the retail customers particularly the urban customers, electronic banking is still at a building state due to many number of constraints such as unavailability of a backbone network connecting the whole country, inadequacy of reliable and secure information infrastructure especially Telecommunication infrastructure, sluggish ICT penetration in banking sector, insufficient legal and regulatory support for adopting banking and so on. The concept of electronic banking includes all types of banking activity performed through electronic networks. It is the most recent channel of banking services which is used for both business to business and business to customers' transactions. However, in true sense, e-banking includes activity like payment of bills and invoices, transfer of funds between accounts, applying for loan, payment of loan installments, sending funds to third parties via email or internet connection regardless of where the client is located.

Leow, Hock Bee (1999) state that the term PC banking, online banking, internet banking, telephone banking or mobile banking refers to a number of ways in which customer can access their banks without having to be physically present at the bank branch. Therefore, e-banking covers all these ways of banking business electronically. Since e-banking offers some smart services benefiting both banks and customers compared with traditional banking system, it has become imperative to make necessary room for banks to flourish e-banking. Among others, attractiveness of electronic banking includes it lowers transactional cost, provides 24-hour services, ensures increased security and control

over transaction, reduces fraud risk, perform higher volume transaction with less time, increase number and volume of value payment through banks, allows remote transaction facilities that replace physical presence of customer in a bank branch and increases transaction speed and accuracy. On other hand, traditional banking is time consuming and more costly and therefore, electronic is replacing traditional banking all over the world.

Liao and Cheung (2002) found that individual expectations regarding accuracy, security, transaction speed, user friendliness, user involvement and convenience are the most important attributes in the perceived usefulness of Internet-based e-retail banking Confidentiality of consumer data is another important concern in the adoption of online banking (Gerrard & Cunningham, 2003). Customers fear that someone will have unlimited access to their personal financial information. White and Nteli (2004) conducted a study that focused on why the increase in Internet users in the UK had not been paralleled by increases in Internet usage for banking purposes. Their results showed that customers still have concerns with the security and the safety aspects of the Internet. Lack of specific laws to govern Internet banking is another important concern for both the bankers and the customers. This relates to issues such as unfair and deceptive trade practice by the supplier and unauthorized access by hackers. Larpsiri *et al.*, (2002) argued that it is not clear whether electronic documents and records are acceptable as sufficient evidence of transactions. They also pointed out that the jurisdiction of the courts and dispute resolution procedures in the case of using the Internet for commercial purposes are important concern.

### **2.1.5. Service Quality**

Research on “quality” in the goods sector has been in existence long before it started in the service sector (Gummesson, 1991). All the same, the meaning of quality in the goods sector is inadequate for it application into the service sector due to the fundamental difference between the two terms (Parasuraman, Zeithaml, and Berry, 1985). Parasuraman, Zeithaml, and Berry (1985, pp. 42) posit that service quality is ‘performance based’ rather than object oriented, therefore “precise manufacturing specifications concerning uniform quality can rarely be set”. Tapiero (1996) also

indicates that the definition of the term quality differ from author to author and it is usually based on the person making the definition, the measures applied and the context within which it is considered. Service quality is an important contemporary issue in service management and marketing (Clotey and Collier, 2008). Banking is seen as a service that captures all the characteristics of service (Chakrabarty, 2006).

Notwithstanding this, literatures sampled from the 1980's and 1990's have examined service quality from two points of view. Researchers like Carman (1990), Garvin (1983), Parasuraman et al. (1985, 1988) have defined and measured service quality by looking at its attributes contrary to Bitner and Hubbert (1994), Iacobucci, Grayson, and Ostrom (1994), Oliver (1993), and Parasuraman, Zeithaml, and Berry (1994) who examined the application of services to conceptualize the relationship between service quality and customer satisfaction. Donnelly et al (1995) also defines service quality as the degree of excellence or superiority that an organization's product possesses and further argues that it is influenced by three service quality dimensions. These three dimensions are customer service, service knowledge and service infrastructure and technology. Just like customer satisfaction, service quality is equally difficult to measure elusive and an abstract construct (Carman 1990). In support of the above statements, while Shostack (1977) looked at the intangibility of service that is rendered or experienced, Parasuraman et al. (1985) argues that service quality goes beyond outcomes and involves the delivery process. Based upon available literatures sampled, service quality shares some similarities with customer satisfaction, although the two are not the same (Cronin and Taylor, 1992; Parasuraman et al., 1985). This according to Clemes et al has led to the combination of service quality and customer satisfaction literature as the basis service quality theory (Clemes et al., 2007).

### **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 (Farris, Paul et al., 2010). 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). Customer satisfaction will vary from person to person, depending on a whole host of variables which may be both psychological and physical.

According to Saha & Zhao (2005), 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, Saha and Zhao further defined customer satisfaction as 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 (Carl & McDaniel, 2005). 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 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 (John & Joby, 2003).

### **2.1.7. Customer Satisfaction in Banking**

Customer satisfaction is a key determining factor why customers leave or stay with a bank. Fornell (1992) cited in Thakur (2011) noted that although customer satisfaction and quality appear to be important for all firms, satisfaction is more important for loyalty in services industry like bank. Because even if the customer appear to be satisfied, they may look for other bankers if they believe they might receive better elsewhere (Reichaheld, 1996) cited in Thakur (2011). Thus the banking organization needs to know how to keep

their customers. 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 services quality is a crucial element which impact customer's satisfaction in the banking industry. Generally in banking quality is multivariable concept, which includes differentiate their firms from competitors through services quality. Services quality deferring types of convenience, reliability, services portfolio and critically the staff delivering the service storbacka et, (1994) Cited in Thakur (2011). Minimum price with maximum usage and profit always breeds higher level of satisfaction (Jamal & 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 of the usage of on line services such as ATM machine and the processing fee is a major source of conflict between the bank and its customers. If thinks that the charges are more than it should become paring to their needs, they switch. Competition is now in banking industry as it has become too easy to open an account in any others 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 bankers for a 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 provide services achieving a high level of services meet the need of customer's. Studies confirmed that service quality and customer satisfaction have strong relationship ((Alagheban, 2006, Bedi, 2010; Keiningham, 2005) when the customer receive high quality services his behavior 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**

The term "e-customers" refers to the online purchase/users whether it is individual or corporate. It can be define as e-customer is an individual or corporate one who are using e-portal to purchase, ordering, receiving information and paying price or charges through various types of e-channels i.e. internet banking, mobile banking, ATM, POS, Credit card, debit card and other electronic deiced. Traditionally the level of customer satisfaction was determined by the quality of services, price and purchase proses. Consequently, the level of e-satisfaction is also determined by the quality of e-services the price level and e-purchasing process (Ming, 2003). Literature on customer satisfaction realizes that there are different factors of e-customers satisfaction than formal customer, e-satisfaction are modeled as the consequence of attitude towards the e-portals (Chen and Chen, 2009).

Customer satisfaction is measured at the individual level, but it is almost always reported at an aggregate level. 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). The main characteristics of services in general and banking services in particular are: It's intangible, 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 and Service cannot be stored (Parasuraman, Zeithmal, & Berry, 1988). Most researchers found that service quality is the antecedent of customer satisfaction (Bedi, 2010; Kumar et al., 2010; Kumar et al., 2009; and 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). 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.

## **2.1.10. Definition of independent Variables**

### **2.1.10.1. 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). It involves two concepts, dependability and uniformity in performance. Reliability also means honoring the commitments in areas such as billing accuracy, proper record maintenance and delivering the service within acceptable time limit (Saha and Zhao, 2005). It also "refers to the correct technical functioning of a self-services technology and the accuracy of service delivery. Many authors have detected that reliability is significant in the determination of service quality (Zeithaml & Bitner, 2000).

In addition, Van Gorder (1990) posited that reliability is the most crucial characteristics for customers in the evaluation of service quality. Zeithaml and Bitner (2000) advised that customers should be specifically influenced by the reliability of new technology because they might be associated with risks such as the technology malfunctioning (Sham Dasani et al., 2008). Parasuraman et al. (1988) also considered reliability of the service as a important factor of service quality. Furthermore Van Gorder also discovered that reliability is the most crucial determinant of service quality (Van Gorder, 1990). Research on the use of computers or technologies which share similar characteristics also affect performance (or dependability) as it is an important attribute (Davis et al., 1989; Davis et al., 1992). Finally, Dabholkar (1996) in his study revealed that reliability and accuracy are appropriate measure for assessing service that has to do with technology.

### **2.1.10.2. Transaction 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 (Leelapong prasut et al, 2005).

### **2.1.10.3. Customer support**

Customer support includes before sell and after sell support. Before customer make decisions, the company should give some support to attract them, let customers feel they are at home. The relationship is like a good friend not like a business. After customers buy the services or products, company should solve the problem that customers met or respond to customers 'questions immediately and according to the problems, company can ameliorate them. In the e-banking industries, support is also important. Not everyone is good at different technology so they need guide on how to use the service. Sometimes, after services on the e-banking, customers might have questions waiting to answer, so he or she also needs support. So, support is very important for customers (Rangsan & Titida, 2013).

#### **2.1.10.4. 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 are consistently 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 services providers (Jon stone, 1997). Security is another essential determinant in the decision of consumers to use Internet banking. Strong issues on security are a common concern to individuals hence their unwillingness to use internet banking (Madu, 2002). Finally, Cunningham (2003) indicated that one of the most important future challenges facing individuals or customers of a bank is the fear of higher risks associated with using the Web for banking and financial transaction.

#### **2.1.10.5. 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). Additionally, Gurting (2006) examined the determinant to use internet banking “the perceived ease of use and perceived usefulness factors are considered to fundamental in determining the acceptance and use of various information technologies”.

#### **2.1.10.6 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 heures-7 days service, allow to transfer funds between banks (Garvin, 1987).

#### **2.1.10.7 Service content**

Service content is all information that is provided to customers. For electronic banking service, it means the content that banks provide to customers through their website, ATM & POS terminal and Mobile. High value added content is essential. The dimension covers the design of content includes like web content layout, content upgrading navigability and user friendliness. These are consistent with findings of previous studies Aladwania and Palvia (2002) agree that for the service content of respective software used in provision of e-banking services to achieve customer satisfaction it should have some comma features. The features or items included sought to answer some key question to the customer which are will completion of online transaction be done easily will logging into the portal done easily, will easy to understand which button to be clicked for the next step.

### **2.1.9. Demographic characteristics of internet banking adopters**

Demography is the study of human population statics, including age, sex race, location, occupation, income, education, and other characteristics. Each of these characteristics influences the nature of customer needs and wants, ability to buy products the perceived importance of various attributes or choices criteria used to evaluate alternative brands, and attitudes towards and preference for different products (Loudon and DellaBitta, 1993, p.35).marketers often segment market on the basis of demographics information because it is widely available and often relates to consumers buying and consuming behavior. Only with a clear understanding of major consumers characteristic can the implication of environmental and individual determinants of consumer behavior begin to be appreciated (Duplessis and Rousseau, 1999, p274). Age, educational level, income and occupation are the most influential demographic variables affecting internet usage.

Typically, internet banking users tends to be well educated, relatively young and are high income earners .it has been widely recognized that demographic factors have a great impact on consumer attitudes and behavior towards internet banking (Karjaluoto,2002,p.360 ) the consumer demographics factors relevant to this study are therefore age, education level and occupation. These are discussed in the following sections.

### **2.1.9.1. Age**

The goods and services people buy varies during the different stages of their lives. For example the kind of food that appeals to youths is unlikely to be the choices of adults. Furthermore people's taste in clothes, furniture and recreation are also age related (Kotler, 2000, p.180). People in different age groups often share distinctive values, meanings and behaviors. Markets must be cautious, however, about segmenting consumers on the basis of actual age. Many adult American consumers think of themselves as ten to fifteen years younger than they really are. Their behavior and cognition is more closely related to their psychological age than their chronological age (Peter and Son, 1994, p363)

According to Stone (2001,p.4) the greatest concentration of computer owners who have banked online in the USA are in the 18 to 34 years age group and represents 30percent of the market. By way of contrast only 15percent of the population in 55 to 64 year age group owns a computer and only 9percent of this group banks online. Karjaluoto, et al (2002,p271) shows that age has an impact on the use of internet banking . The results imply that the typical users are between 35 and 49. Therefore, this study undertaken to determine whether age has an impact on customer satisfaction of e-banking.

### **2.1.9.2. Education Level**

Educated level is defined as means by which access to a particular occupation is granted (Kotler and Armstrong, 2000, p.75). There is strong relationship between income and education level. More educated consumers have more money available to spend, due to better education and this affects their life styles. As people attain higher education, it affects which types of products they buy, what kind of stores to buy them in, and what price they are willing to pay (Wilkie, 1990, p.78). A person level of education can impact strongly on their ability to generate income and their consumer spending potential. In short, better educated consumers tend to have better paying occupation than those who are not well educated (Schiffman and Kanuk, 2000, p.4).

### **2.1.9.3. Occupation**

A personal occupational also influences his or her consumption pattern. Marketers try to identify the occupational groups that have above –average interest in their products and services. A company specialize their product for certain occupational groups (kotler, 2000, p.181). Demographical variables are often used as basis to describe different types of consumers. High-level occupations that are rewarded with high incomes usually require advanced educational training. Individual with little education rarely qualify for high –level occupation (Schiffiman and Kanuk, 2000, p.42). Karjaluoto (2002,p359) relates this to internet banking where those currently using online services are well-educated and have better occupations than non-users. In conclusion, occupation has an impact on internet banking and current users tend to be employed in better position than non-users.

## **2.2. Empirical Review**

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 concluded 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 rate of illiteracy and absence of financial network that 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 question that emerges through the review of literature and experience of the researcher in respect of the e-banking system in Ethiopia. The study statically analyzes data obtained from the survey questionnaire. A research frame work 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 industries and by government to address varies challenges identified. These measures include establishing a clear set of legal frame work on the use of technology in banking industry, supporting banking industries 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 statics in analyzing this study and it was limited to customers of two private banks only.

The result of the study implied that majority of users of e-banking are the young, the educated, salaried and students ,business person are not actively using the services of e-



banking , e-banking currently provided for saving and current account holders only, e-banking reduced frequently of bank hall for banking services, reduced waiting time for customers these 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 services 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 customers also identified, security concern among banks and customers are keeping both away from internet banking (Sathye,1999). The study of kerem(2003) on adaption 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 days of interactive channels in Estonia, as Estonia is internationally renewed for being a pioneer in the acceptance of new technology. The adaption of internet banking better prices, recommendation, better services, marketing effort, better access and higher privacy.

The most important factor of 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. On line questionnaire was used to collect empirical data and the result of the study shows that intention to adopt internet banking can be predicted by attitudinal factor, perceived behavior control factors to a 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.

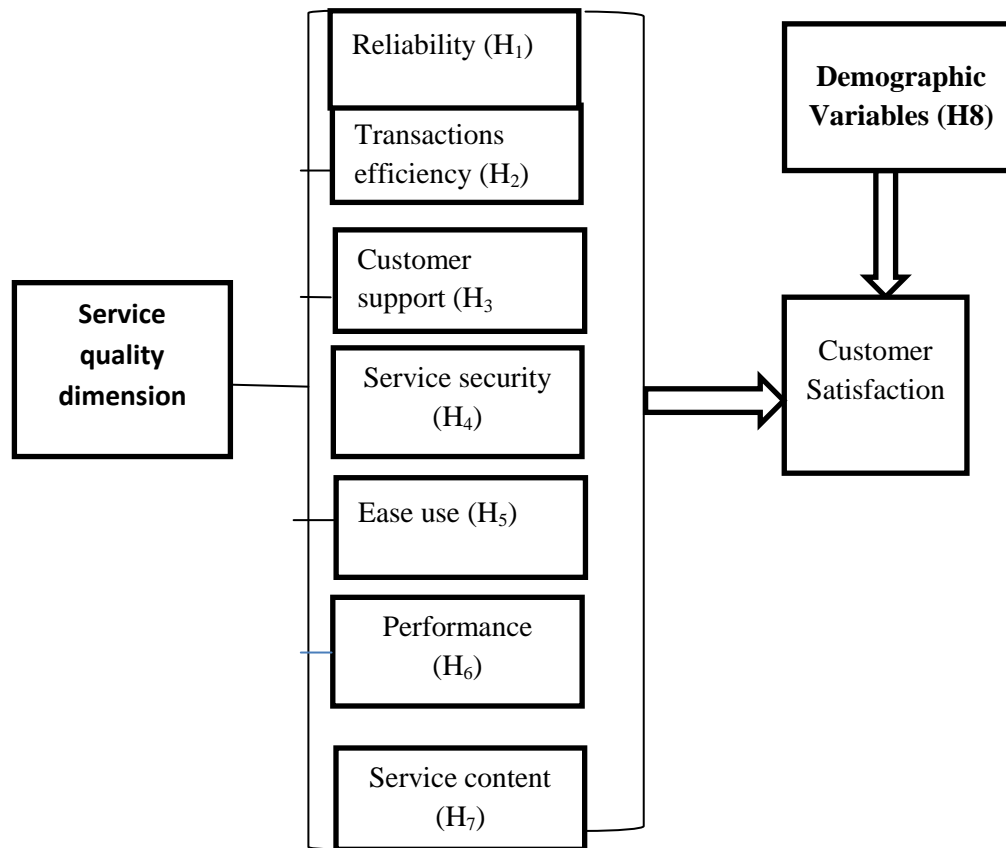
Jannatul (2009) in his study of e-banking and customer satisfaction which focuses on understanding the impact of variables of e-banking , on customer satisfaction in Bangladesh, five services quality dimension namely reliability, responsiveness, assurance, empathy, and tangibles are established based 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, empirical and question of representativeness this study is designed to examine the impact of e-banking on the satisfaction of customers in four Private Banks and one public bank in Jimma town.

### **2.2.1 CONCEPTUAL FRAMEWORK**

The basic objective of this study is to investigate the impact of E-banking service on customer satisfaction. The research model for this research is given in Figure 3. .The independent variables taken into account in the explanation of service quality are the seven identified characteristics. I hypothesize that all those attributes have a positive impact. The service quality dimension Service efficiency, customer support, service security, easy use, performance, services content and Reliability. Santos (2003) explained that e-banking service quality consists of active dimension and each dimension composed by seven determinants as illustrate below. The models can assist the companies to understand e-service quality and customer satisfaction. Before launching website the dimension considered and insures that, the website is easy to use, search and navigates, there is attractive presentation of factual contents and links are set up and maintained and broken links are avoided.

**Figure 1: conceptual framework**



**Sources: Santos (2003)**

### **2.2.2 Research Hypothesis**

H1: To e-banking reliability service has positive impact on customer satisfaction

H2: To e-banking Transactional efficiency service has positive impact on customer satisfaction

H3: To e-banking customer support service has positive impact on customer satisfaction

H4: To e-banking service security service has positive impact on customer satisfaction

H5: To e-banking easy use service has positive impact on customer satisfaction

H6: To e-banking performance, service has positive impact on customer satisfaction

H7: To e-banking service content service has positive impact on customer satisfaction

H8: To demographic variables has relationship with impact on customer satisfaction.

# **CHAPTER THREE**

## **RESEARCH METHODS**

### **3.1. Research Design and Research approach**

The researcher were used Explanatory research design, because, it is suitable to explain the relationship between variables as quoted in Mark, Philip & Adrian (2009). Explanatory research helps to establish the relationship between independent and dependents variables. The researcher also used descriptive studies to describe the characteristics of the sample by using mean, percentages and frequency. There are two basic approaches, these are qualitative and quantitative. The quantitative research approach makes use of statistics and numbers which are mostly would present in figures while qualitative approach relies on describing an event with the use of words. According to Yin (1994), a research approach chosen shall be doing according to the research questions in the particular situation since each approach has its own advantage and disadvantage and how empirical data is would be collecting and analyzing. In conducting study researcher used quantitative research approaches were used.

### **3.2. Source and Types of Data**

The source of data is primary and secondary data. Primary sources of data included, questionnaire and interview. Structured questionnaire would be used to gather data from respondents of the study. Active users of e-banking customers of Commercial bank of Ethiopia Jimma city branch were used for the study. The questionnaires were distributed for respondent at working hour and distributed after researcher sight permit from branch manager and gave brief explanation for customers how to filled questionnaire. The questionnaire would be designed based on previous empirical literature and its consistency is pre-tested using Cronach Alpha. And structured interview also asked the branch manager of commercial banks of Ethiopia Jimma town.

And secondary data would be using for supporting the studies and to get the findings of others research in the area (empirical study) the source of secondary data would be library books and annual report of commercial banks of Ethiopia).

### 3.3 Target Population

The target population of this study was active user of e-banking customer's commercial banks of Ethiopia who have been using the service from introduction to December 31, 2016 years. According to annual report of CBE of Jimma District offices the total population was 14,291 as of December 31, 2016 in the seven branches which found in Jimma city.

### 3.4. Sample Techniques and sample size

Probability sampling techniques used to select a reasonable number of subject, objects or cases that represent population and where every subjects equal chance of being selected. It provides an efficient system of capturing in small groups, the variation or heterogeneity that exists in target population. The study adapted probability techniques. Therefore, simple random method was used to consciously select customers who meet the criteria of having used e-banking and interview branch managers for cross check. According to annual report of CBE of Jimma District offices the total population was 14,291 as of December 31, 2016 in the seven branches which found in Jimma city. To calculate sample size, simplified formula provided by Taro Yamane (1967) is used

$$n = \frac{N}{1 + N(e)^2}, \text{ therefore according to my data } n = \frac{14,291}{1 + 14,291(0.05)^2} = 387$$

Where, n = number of sample size,

N = Total number of study population,

e = level of confidence to have in the data or degree of freedom which is 95% for this study.

To select number of respondent from each branch proportional formula is used. Because the all branches has no equal number of customers who using electronic banking services ,therefore take equal chances for all branch customers proportional formula is used.

$$n! = \frac{n*N!}{N}$$

n!= sample size for each branch

N= total number of population

N! = total number of population targeted branches

According data Jimma main  $n! = \frac{387*7,307}{14,291} = 198$ , Hermata branch,  $= \frac{387*2010}{14,291} = 54$

Abajifar branch  $= \frac{387*1,455}{14,291} = 39$ , Jiren  $= \frac{387*2012}{14,291} = 55$ , shenen ghibe,  $\frac{387*860}{14,291} = 24$ ,

Ginjoguduru  $= \frac{387*407}{14,291} = 11$  and Mentina branch  $= \frac{387*240}{14,291} = 6$

**Table 3.1: Population and Sample Size Determination**

<b>Branches</b>	<b>Total Active No. of E-Banking Users</b>	<b>Distributed questionnaires</b>	<b>Returned questionnaires</b>
Jimma Main	7,307	198	190
Hirmata	2,010	54	51
Abajifar	1,455	39	36
Jiren	2,012	55	52
Shenen ghibe	860	24	22
Ginjoguduru	407	11	11
Mentina	240	6	6
<b>Total</b>	<b>14,291</b>	<b>387</b>	<b>368</b>

**Source: Annual Reports December 30, 2016 of each Branch**

The above table indicates that 368 out of the 387 questionnaires were successfully completed and returned. This means that 95.09% of the respondents successfully completed and returned the questionnaire. This percentage was deemed adequate for the analysis to continue. The total Sample size of determined would be proportionally

distributed to branches according to total population of active e-banking users. The 52% highest percentages of questionnaire were distributed to Jimma main branch.

### **3.5. Data collection tools**

A self-administered, structured questionnaire (Appendix A) was used to gather data from respondents to the study (Cooper and Schindler 2006; Malhotra and Birks, 2007). The researcher first sought permission from the Branch Manager of all the five (5) banks used for the study. The permission was to allow their premises to be used for this study. Each respondent to the study was made to fill a questionnaire after a brief introduction and objective of the study has been explained. . The components of e-banking and outcomes of customer satisfaction items are would be measure on 5-point Likert- scale ranging from 1 (strongly disagree) to 5 (strongly agree).

### **3.6. Data analyses Techniques**

The data gathered from the field through the questionnaires is record and coded into Statistical Package for Social Science (SPSS) software version 21. In analyzing the data gather from the field (questionnaire), frequencies, means, and reliability, Linearity test, Chi-square test are primarily calculate using SPSS, and content reliability of the questionnaire are establish by reviewing existing literature. The data analyses using statistical techniques, these techniques are multiple regression analysis such as Multicollinearity, linearity, Normality and analysis of variance.

### **3.7. Research Model**

The aim of this study is to identify the impact of seven e-banking quality dimensions on customer satisfaction in the Commercial Bank of Ethiopia. The researcher employed the Multi linear regression model to study the relationship between e-banking services and customer satisfaction. The research deemed regression method to be useful for ability to test the nature of the influence of the independent variables on dependent variables, which best predicted the value of dependent variables.

Customer satisfaction in e-banking = f (electronic banking service quality)



**Basically, CSEB =  $\alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \epsilon$**

Where, CSEB = Customer Satisfaction in E-Banking,  $\alpha$ = constant alpha

X1= Reliability, X2= transaction efficiency, X3= Customer support, X4= service security  
X5 = Ease of Use, X6= performance and X7= service content.

Here  $\alpha$  is constant and  $\beta_i$  is coefficient of estimate and  $\epsilon$  is the error term. Customer satisfaction in e-banking is dependent variable and X1 to X7 are independent variables..

### **3.8 Cronbach’s Alpha Test of Reliability**

To ensure that there is internal reliability of the data used, the Cronbach’s Alpha Test of Reliability was performed. The various dimensions of services quality used for this study were tested. The results of the test show that each dimension was internally consistent.

**Table 3.2. Cronach’s Alpha Test of Reliability for each variable**

<b>Variables</b>	<b>Cronbach Alpha score</b>	<b>No. items</b>
Reliability	0.76	3
Transaction efficiency	0.64	2
Customer support	0.74	5
Service security	0.71	6
Ease of use	0.77	5
Performance	0.73	2
Service content	0.79	3

**Source: SPSS survey/2017**

One of the most commonly used indicators of internal consistency is Cronbach Alpha coefficient. Ideally, Cronbach’s Alpha coefficient scale should be above 0.7 (De Vellis 2003).The Cronbach Alpha score ranges from 0 to 1 (Nunnally and Bernstein, 1994). In the current study the Cronbach alpha coefficient of all constructs are greater than 0.7 except Transaction efficiency 0.64 which exceed the 0.60 minimum threshold and acceptable. This shows almost all constructs of current studies have good the internal consistency (inter--*correlations*) scale with the exception of few Transaction efficiency are acceptable for hypothesis testing.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION**

From 387 totals of questionnaires, 368 were returned and administered to the respondents with close follow up and guided in filling the questionnaires. Most of respondents completed the questionnaires in suitable form. Several questions were asked related to the E-banking service on customer satisfaction of Commercial Bank of Ethiopia in case Jimma town. The basic assumptions are that e-banking service quality dimensions namely (reliability, transaction efficiency, customer support, service security, ease of use, performance, and service content) 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 is analyzed and discussed in this chapter

The statistical analysis of this study was done using by SPSS software version 21. And the results of the study were shown in descriptive and inference statistics parts. In descriptive statistics part are frequency tables, mean and standard deviation and in inference statistic parts are used chi-square, correlation matrix and multiple liner regression was used.

## 4.1. Descriptive Findings

### 4.1.1. Demographic Profile

**Table. 4.1. Demographic characteristic table**

No	Demographic	Frequency	Percentage	
1	Gender	Male	253	68.8
		Female	115	31.2
		<b>Total</b>	<b>368</b>	<b>100</b>
2	Age	18-25	19	5.2
		25-35	166	45.1
		36-50	122	30.4
		51-60	67	18.2
		>60	4	1.1
		<b>Total</b>	<b>368</b>	<b>100</b>
3	Marital status	Single	52	14.1
		Married	279	75.8
		Separate	34	9.2
		Divorced	4	1.1
		<b>Total</b>	<b>368</b>	<b>100</b>
4	Educational status	Primary school	9	2.4
		High school	55	14.9
		TVET	70	29
		Bachelor degree	200	54.3
		Master degree	28	7.6
		Doctorate degree	5	1.4
		Above Doctorate	1	0.3
		<b>Total</b>	<b>368</b>	<b>100</b>
5	occupational	Student	60	16.3
		unemployment	31	8.4
		Employed	189	51.4
		Business person	86	23.4
		Pension	2	0.5
		<b>Total</b>	<b>368</b>	<b>100</b>

**Sources: from questionnaire survey/2017.**

As **table 4.1** above shows that the demographic categories of representing 68.8% were male and 31.2% represents were females. It indicates more percent of e-banking users are Male. The age statistics indicated that the least age groups were those above 60 which were represented 1.1% from the total respondents. Additionally, the highest age groups from the study were those between 25-35 years. These age groups were 166 respondents which represented 45.1% of the respondents. The next highest age group was those

between 36-50 years and 51-60 years old. This age group represents 30.4% and 18.2% of the respondents respectively. Depending on the data age could impact on using e-banking services. Furthermore, the marital status of respondents shows that 4 in number have divorced, 279 were married, 34 were separated and 52 were single. Percentage wise 1.1% were divorced, 75.8% were married, 9.2% were separated and 14.1% were single. The most represented educational levels were those with a Bachelor degree which was 200 respondents or 54.3% of the respondents. This was followed by 70 respondents representing 19% who were with a TVET and 55 respondents representing 14.9% and were 28 (7.6%) Master degree. The least represented educational level were those doctorate degree and above doctorate degree who were 5 in number or 1.4% and above doctorate 1 in number or 0.3% of the respondents respectively. As far as occupation is concerned, the respondents were employed (51.4%), business person (23.4%) and students (16.3%) and there were least respondents from pensioner 0.5% and unemployed category 8.4% in the sample respondents under consideration.

#### **4.2. Mean and Standard Deviation Of the variables**

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 customer satisfaction of the commercial bank of Ethiopia by using the means and standard deviations values. In the respondent's perception on the satisfaction of e-banking service offered by their banks and ranking was done on each variable. 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 agree level with a mean value of 3.45 on a 5 point Likert scale.

**Table 4.2 Mean and Standard deviations**

	N	Mean	Std.d ev
<b>Overall Customer satisfaction</b>	368	3.45	0.904
Reliability	368	3.77	0.613
Transaction efficiency	368	3.61	0.728
Customer Support	368	3.31	0.778
Service security	368	3.59	0.819
Easy use	368	2.22	0.782
Performance	368	2.17	1.62
Service Content	1 368	300 3.30	0.867

**Sources: SPSS Survey/2017**

The above table shows the responses which were based on a likert scale of 1-5 where 1=strongly dis-agree 2=disagree 3=neutral 4=agree 5= strongly dis agree. The measures of central tendency where compute based on responses obtain from the e-banking services of commercial bank of Ethiopia. The discussions of each variable are as follows:

**Reliability**, recorded a mean score of 3.77 inferring that clients agree with the notion that the e-banking services commercial banks of Ethiopia allows for a quick completion of transactions. The variation mean scores of 3.77 were 0.613(standard deviation). This infers that on average the amount of variation between responses from the mean was significant and there is high dispersion to this notion among respondents

**Transaction efficiency** has mean score of 3.61and standard deviation of 0.728. The mean score of 3.61 indicates the most of e-banking service users are agreed to the transaction efficiency of commercial bank of Ethiopia. The observed standard deviation of 0.728 is less than the mean of 3.61; therefore it inferred that there was a consensus among the e-banking services users that there is consistency on the transactional efficiency of commercial of Ethiopia.

**Service security**, the mean score of service security were 3.59 indicates on average respondents are agreed to services security of commercial bank and standard deviation score were 0.819 infer that e-banking services users are consistency on the services security

**Customer support**, the mean score of customer support 3.31.the result shows that on average the user agreed the to the view that the e-banking services facility of commercial Banks in provide s clients with all essential banking information they need. The standard deviation score that variation between the respondents from the mean was 0.778.

**Easy use**, the mean score of easy use 2.22 and standard deviation of 0.782 shows that respondent are not happy with easy use of e-banking service of commercial bank. The variation between responses from the mean is low which shows that respondents agreed to this assentation. However, it can be inferred that most of the user are not aware on easy use of e-banking services of commercial bank of Ethiopia.

**Performance**, mean score of 2.17 indicates many respondents dis-agree on e-banking service performance with standard deviation of 1.625 it means significantly influence customer satisfaction of commercial bank of Ethiopia.

**Service content** also has mean value of 3.72 and standard deviation of 0.807 this also infers that on average the amount of variation between responses from the mean was significant and there is high dispersion to this notion among respondents.

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 electronic banking literature, which substantively advocates that e-banking factors have an impact on customer satisfaction (Hua, 2009; Wise, Victoria & Ali, & Muhammed, 2009).

### 4.3. Inference Findings

#### 4.3.1. Chi-Square Test

Here the Association between demographic characteristics and customer satisfaction on e-banking had been tested using Chi-Square test. The test statistics was chosen because the variable under study was categorical. The result of SPSS statistical package portrayed in the following table.

**Table 4.3: Chi-Square test for association between demographic characteristic and customer satisfaction of E-banking**

Variable	Chi-Square	Df	Asymp. Sig.
Gender	14.921	3	0.002
Age	46.294	12	0.000
Educational level	100.180	18	0.000
Occupation	93.519	12	0.000

Sources: SPSS Survey/2017

Asymptotic significances are displayed and the significance level is .05.

**Table 4.3** shows that the association between customer satisfactions in e-banking and the demographic variables like educational level age, occupational, Marital status are statistically significant as their p-value were lower than 0.05. For, example Gender has degree freedom (Df) 3 and has significant at the value of 0.002 this means there is significance differences between Male and Female and has association with customer satisfaction. The other demographic variables, age Df=12 and significance value of 0.000, educational status Df=18 and significance value of 0.000, occupation Df=12 and significance value 0.000 .It implies that the demographic variables significant contribution in customer satisfaction of e-banking. According to some literatures, individual with little education rarely qualify for high –level occupation (Schiffiman and Kanuk, 2000, p.42). Karjaluoto (2002,p359) relates this to internet banking where those currently using online services are well- educated and have better occupations than non-users. In conclusion, occupation has an impact on internet banking and current users tend

to be employed in better position than non-users. About age, chi-square value is 46.294 associated with less than 0.01 level of precision indicating age has association with satisfaction in e-banking. To put it best, age and customer satisfaction in e-banking are definitely dependent on one another and this is correct at 99% likelihood. Karjaluoto, et al (2002,p271) shows that age has an impact on the use of internet banking. Therefore, depending on the results can accept hypotheses.

### **4.3.2. Regression Analysis**

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

### **4.3.3. Diagnosis Test**

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

#### **4.3.3.1. Multicollinearity Test between Study Variables**

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



**Table 4.4 Multicollinearity Test between Study Variables**

<b>Independent variables</b>	Reliability	Transaction efficiency	Customer support	Service security	Ease use	Performance	Service content
Reliability	1						
T. Efficiency	0.488**	1					
C. support	0.124*	0.328**	1				
Service security	0.399**	0.344**	0.272**	1			
Easy use	0.084	-0.010	0.069	-0.105*	1		
performance	0.012	-0.012	0.103*	0.140**	0.438**	1	
Service content	-0.067**	-0.019	0.136**	0.197**	0.061	0.135**	1

**Sources: SPSS survey/2017**

\*Correlation is significant at the 0.05 level

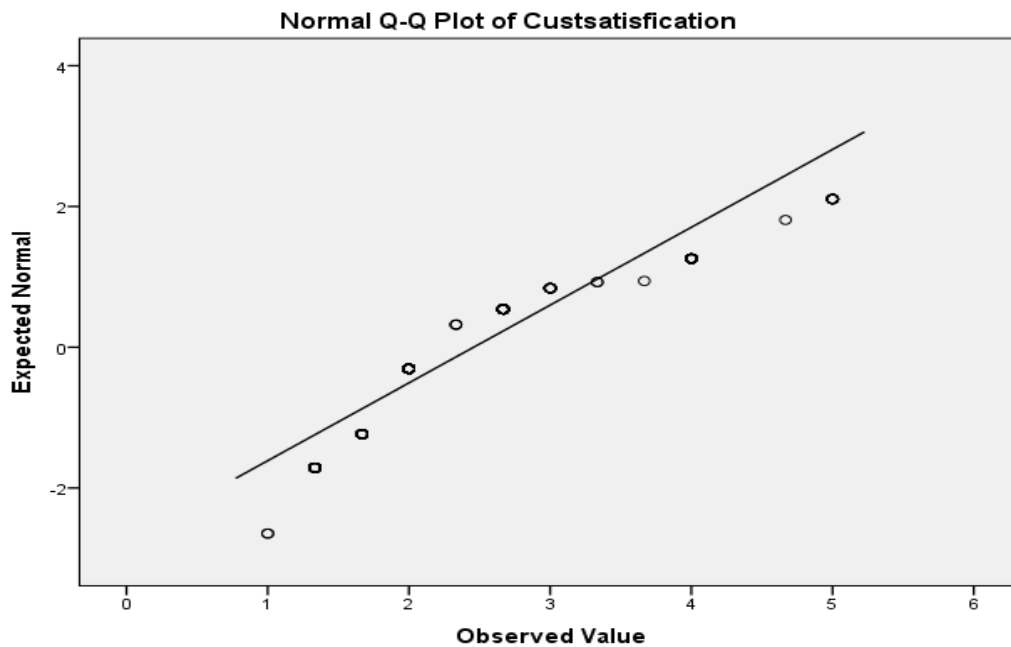
\*\*correlation is significant at the 0.001

All variables are expected to correlate with each other because of they are measuring the same thing. So that any variable that does not correlate ( $r=0$ ) with any other of variables (or very few) then these variables should be excluded before factor analysis is run. The opposite problem when variables correlate too highly. Mild Multicollinearity is not problem for factor analysis; however it is important to avoid extreme multicollinearity (variables that are very highly correlated,  $r>0.8$ ) and singularity (variables that are perfectly correlated,  $r=+1$ )(Hair et al. (2006)).In regression as well as in factor analysis singularity causes problems because it is impossible to determine unique contribution to a factors of variables that are highly correlated in multiple regression and the same case for factor analysis (Hair et al. (2006)).Therefore, any variables that either do not correlate with any other variables or that correlate very highly with other variables must be eliminated.

Hair et al. (2006) argued that correlation coefficient below 0.9 may not cause serious multicollinearity problem. Malhotra (2007) argued that the correlation coefficient can be 0.75. Lastly, 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. Therefore, the correlation of the value current studies all variables less than 0.8 that shows there is no multicollinearity problem.

#### 4.3.3.2. 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 customer satisfaction and the independent linear; plots of the regression residuals through SPSS software had been used.



Source: SPSS survey/2017

**Figure 4.1: Linearity Test**

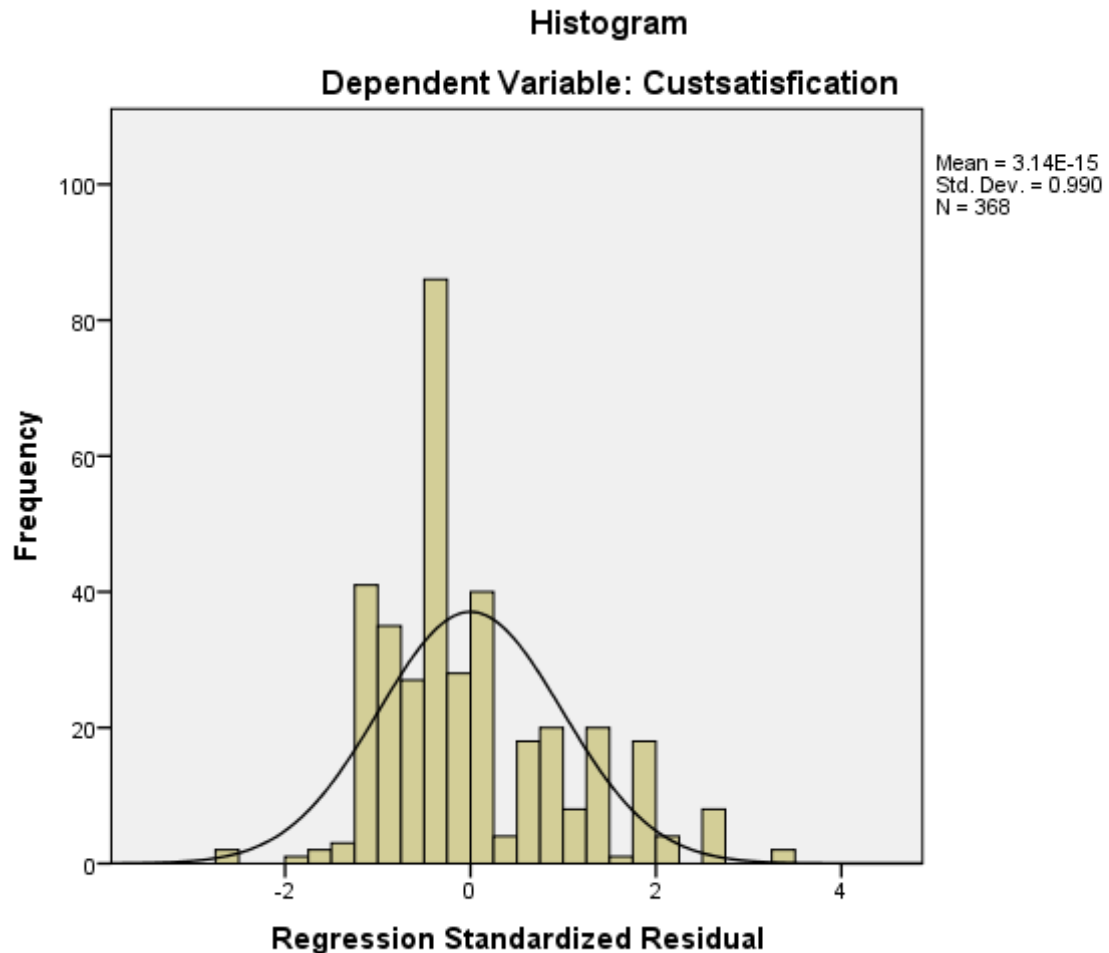
The scatter plot of residuals shows no large difference in the spread of the residuals as you look from left to right on figure 4.1. This result suggests the relationship we are trying to predict is linear.

### 4.3.3.3. Normality Test

As per the Classical Linear Regression Models assumptions, the error term should be normally distributed or expected value of the errors terms should be zero ( $E(U_t) = 0$ ).

Figure 4.2: Frequency Distribution of Standardized Residual

**Figure 4.2: Normality Test**



Source: SPSS survey/2017

**Figure 4.2** shows the frequency distribution of the standardized residuals compared to a normal distribution. As you can see, although there are some residuals (e.g., those occurring around 0) that are relatively far away from the curve, many of the residuals are fairly close. Moreover the histogram is bell shaped which lead to infer that the residual (disturbance or errors) are normally distributed. Thus, no violations of the assumption

normally distributed error term. Thus, from an examination of the information presented in all the three tests I conclude that there are no significant data problems that would lead to say the assumptions of multiple regressions have been seriously violated.

#### 4.3.4. Correlation Matrix between Customers Satisfaction of e-banking and explanatory variables

An explanatory variable has impact on the customer satisfaction of e-banking and has different correlation among independent variables on customer's satisfaction as analyses in the following tables.

**Table 4.5 Correlation Matrix between Customers Satisfaction of e-banking (CSEB)**

Variables	CSEB	Reliability	Transact Efficiency	customer support	Service security	Ease Use	Performance	Service Content
CSEB	1							
Reliability	-0.248	1						
T.Efficiency	-0.174	0.488	1					
C.support	0.194	-0.124	0.328	1				
S.security	-0.123	0.399	0.340	0.272	1			
Easy use	0.179	0.084	-0.010	0.069	0.105	1		
performance	0.205	0.012	-0.012	0.103	0.140	0.438	1	
S.Content	0.010	0.010	0.067	-0.19	0.197	0.139	0.061	1

Source: SPSS survey/2017

\*\*Correlation at the 0.01 level

\*Correlation is significant at 0.05

CSEB= Customer satisfaction of e-banking, T.Efficiency= transactional efficiency, C.support= customer support, S.security=service security, and S.content=service content

As in the above table 4.5 shows that service quality dimension correlation are analyses.

Customer support has positive correlation value of 0.194, ease of use correlation value of 0.179, performance has correlation value 0.205 and service content has positive correlation of 0.010 which is significant at 0.01 levels. Therefore this variable tends to be a better predictor of customer satisfaction of e-banking. Reliability (-0.248), transaction efficiency (-0.174) and service security (-0.123) are negative correlation with customer satisfaction of E- banking. It implies that reliability, transaction efficiency and service security are low contributed in customer satisfaction.

#### 4.3.5. Regression Analysis between Customer Satisfaction on E-Banking and Explanatory Variables.

**Table 4.6: Model Summer**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
<b>1</b>	<b>0.817</b>	<b>0.694</b>	<b>0.659</b>	<b>0.316</b>

**Sources :SPSS survey/2017**

**a. Predictors:** (Constant), Performance, Transaction efficiency, Customer support, service security, Ease of use and Reliability

**b. Dependent Variable:** Customer satisfaction

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, customer support , ease of use, service security, service content and performance ). As clearly described in **Table 4.6** R-square value for the regression model was 0.694. This indicates the explanatory variables; reliability, transaction efficiency, customer support, service security ease of use, performance and service content in this study explain about 69.4% of the variation in the level of customer satisfaction. The remaining 30.6 percent of the variation in the customer satisfaction of

CBE are explained by other variables which are not included in the model. Therefore, e-banking service dimensions (reliability, transaction efficiency, customer support, ease of use, service security, service content and performance) are good explanatory variables of the satisfaction of Commercial banks in Ethiopia.

**Table 4.7: ANOVA Analysis**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	55.548	6	9.258	13.658	0.000
Residual	244.702	361	0.678		
Total	300.250	367			

Source: ANOVA Survey/2017

a) **Dependent Variable:** Customer satisfaction

b. **Predictors:** (Constant), Performance, Transaction efficiency, Customer support, service security, Ease of use, service content and Reliability.

From the ANOVA table 4.7 as the F-value (13.658) that is used to measure the overall test of significance of the model was presented the p-value is 0.000 which is significant; therefore the model is well fitted.

#### 4.3.6. Multiple Regression Analysis

Multiple Regression analysis was employed to test hypothesis. It is useful techniques that can be used to analyze the relationship between a single dependent variable and several independent variables (Hair et al 1998). Before employing the Multiple Regression test Variance inflationary factor (VIF) and Tolerance test were used to test the relationship between independent variable, taking into account that **VIF** should not exceed the value of 10 and Tolerance value should exceed the value of 0.05. The result shows in the following table VIF value of for all variable were less than 10 and the value of **Tolerance** for all variables were greater than 0.05. therefore there is no multicollinearity between independent variable.

**Table 4.8 Regression Coefficient Analysis of the Model**

Model	Unstandardized Coefficients		Standardized Coefficients	95.0% Confidence Interval			
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(Constant)	2.994	0.329		9.092	0.000		
Reliability	-0.274	0.084	-0.186	-3.249	0.001	0.688	1.455
Transaction efficiency	-0.162	0.072	-0.131	-2.254	0.025	0.63	1.487
Customer support	0.310	0.060	0.267	5.164	0.000	0.847	1.180
Service security	-0.120	0.060	-0.108	-1.997	0.047	0.765	1.308
Ease of use	0.146	0.062	0.126	2.366	0.019	0.798	1.253
Performance	0.077	0.030	0.139	2.596	0.010	0.791	1.264
Service content	0.066	0.041	0.024	2.359	0.003	0.769	1.255

**Source:** SPSS Regression survey/2017

The above table 4.8 shows that coefficient of the relationship between dependent and independent variable. As the result of significance value of reliability, transaction efficiency, customer support, service security, ease of use, service content and performance are demonstrating that they have significance correlation with customer satisfaction, as the significance values are less than 5% of level of significant. Moreover, two final tests were conducted to assess the presence of multicollinearity (Table 4.8 above). First, the tolerance value for each predictor variable was calculated and none are found to be **below 0.60**. While Tolerance values **at 0.10 or below** indicate high correlation that create problem of multicollinearity (Hair et al., 2006). Second, variance inflation factors (designated as VIF in the regression models table 4.8 above) for the independent variables are calculated and **are below 2**, which is well below the guideline of **10** recommended by (Mendenhall and Sincich, 1993; Hair et al., 2006). Given the VIF and tolerance levels found in the analysis, there is no problem with multicollinearity. Generally, based on the aforementioned criteria, all scales used in this study proved to be valid and reliable.

Therefore in this case there is no multicollinearity problem because; all the value of VIF is less than 10. And among the above service quality dimension, customer support has produced the most significant results. However, when analyzed individually against customer satisfaction they have been found that there relationship. From the results generated in table above we can develop the regression analysis equation as follows:

$$\text{CSEB} = 2.994 - 0.274X_1 - 0.162X_2 + 0.310X_3 - 0.120X_4 + 0.146X_5 + 0.077X_6 + 0.066X_7$$

Where,

X<sub>1</sub>=one unit change in reliability will change customer satisfaction by -.274 unit in average

X<sub>2</sub>=one unit change in transaction efficiency will change customer satisfaction by -.162 unit in average

X<sub>3</sub>=one unit change in customer support will change customer satisfaction by .310 unit in average.

X<sub>4</sub>=one unit change in service security will change customer satisfaction by -.120 unit in average

X<sub>5</sub>=one unit change in ease of use will change customer satisfaction by .146 unit in average

X<sub>6</sub>=one unit change in performance will change customer satisfaction by .077 unit in average

X<sub>7</sub>=one unit change in service content will change customer satisfaction by 0.066 unit in average

The explanatory variable are negative relationship with customer satisfaction reliability, transaction efficiency and service security whereas low coefficient of -.274, -.162 and -.120 respectively it implies negative impact on customer satisfaction of e-banking of commercial bank of Ethiopia. Customer support, ease of use, performance and service content has a positive coefficient of 0.310, 0.146, 0.077 and 0.066 respectively. This means leads to better satisfaction of customers on e-banking.



### 4.3.7. Hypotheses test

#### **H1: E-banking reliability service has positive impact on customer satisfaction.**

As shows in the above table 4.5 and 4.8 Reliability has negative correlation with customer satisfaction of e-banking -0.248 and the regression coefficient analysis is also negative -0.274 with at significance level of 0.001 this implies that reliability has negatively impact customer satisfaction. Therefore hypothesis rejected. Zeithaml and Bitner (2000) advised that customers should be specifically influenced by the reliability of new technology because they might be associated with risks such as the technology malfunctioning (Sham Dasani et al., 2008). Parasuraman et al. (1988) also considered reliability of the service as important factor of service quality.

#### **H2: E-banking transaction efficiency service has positive impact on customer satisfaction.**

service quality dimension transaction efficiency has negatively correlation with customer satisfaction -0.174 and also -0.162 negative regression coefficient analyses, at the significance level of 0.025 it implies that not much as strongly impact on customer satisfaction. Therefore, depending on hypothesis formulated these hypotheses rejected. 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 (Leelapong prasut et al, 2005).

#### **H3: E-banking customer support service has positive impact on customer satisfaction.**

As result in table 4.8 shows that Customer support is positive correlation with customer satisfaction and 0.194 and positive regression analysis of 0.310 with at significance level value 0.000. This implies that the variables positive correlation with customer satisfaction of e-banking. Therefore hypotheses are accepted. Sometimes, after services on the e-banking, customers might have questions waiting to answer, so he or she also needs

support. So support is very important for customers (Rangsan & Titida, 2013).

#### **H4: E-banking service security service has positive impact on customer satisfaction**

Service security also with significance level of 0.047 which is less than 5% and negative correlation of -0.123 and negative regression coefficient -0.020. Therefore a hypothesis formulated is rejected. Strong issues on security are a common concern to individuals hence their unwillingness to use internet banking (Madu, 2002). Finally, Cunningham (2003) indicated that one of the most important future challenges facing individuals or customers of a bank is the fear of higher risks associated with using the Web for banking and financial transaction.

#### **H5: E-banking easy use service has positive impact on customer satisfaction.**

The independent variable, easy use have also correlation with customer satisfaction and significant at 0.019 as indicated table 4.8 and have positive correlation matrix 0.179(see table 4.5) and regression coefficient 0.146. Therefore, hypothesis accepted depending on the results. 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).and also empirically found that e-banking ease of use and customer satisfactions have positive relationship. Parasurman et al, 1988, (Yang, Jun and Peterson, 2004), (Lui & Amett, 2000), (Storback et al, 1994) cited in (Thahkur, 2011) found ease of use and satisfaction as critical factors on the use of e-banking.

#### **H6: E-banking performance service has positive impact on customer satisfaction.**

According to findings Performance has positive correlation with customer satisfaction at the value of 0.205 it means strong relationship with customer satisfaction and the regression coefficient of 0.077(see table 4.8). Since the researcher formulated positive hypotheses, the hypotheses are accepted. The findings are also consistent with other

research findings for example (Garvina, 2010) found that Performance provides higher degree of customer satisfaction on e-banking.

**H7: E-banking service content service has positive impact on customer satisfaction.**

From statically analysis **service content** has positive correlation with customer satisfaction and positive regression coefficient as explained in table 4.5, service content has 0.010 correlations with customer satisfaction and 0.066 has positive regression analysis, it implies that strongly contribution on impact of customer satisfaction. The measures of significance value or p-value less than 5% which means the variables has great contribution on impact of e-banking of services of customer satisfaction, depending on the result the hypothesis clearly accepted. These are consistent with findings of prevision studies Aladwania and Palvia (2002) agree that for the service content of respective software used in provision of e-banking services to achieve customer satisfaction.

# CHAPTER FIVE

## SUMMARY, CONCLUSION AND RECOMMENDATION

### 5.1. Summary of the findings

When start from the descriptive findings under the demographic variables most of the respondents 68.8% were Male, Age 25-35 are most participant of the respondents 45.1%, Educational status most respondents are Bachelor degree holder (54%) and 51.4% respondents were employed from occupational. When analyses the demographical variables all are statically significant at level of 1%.

The analyses of independent variables using requirement model, all variables plays crucial role in impact of e-banking services on customer satisfaction. These reliability, transaction efficiency and service security are -0.248,-0.174 and -0.123 respectively correlation with customer satisfaction and customer support (0.194), easy use (0.179), performance (0.205) and service content has 0.010 with customer satisfaction. The negative correlation indicates low contribution of variables in the customer satisfaction and the positive indicator high contribution of the predictors in customer satisfaction or high impact on customer satisfaction. When also check the regression analyses of independent variables on customer satisfaction reliability -0.274, transactional efficiency -0.162, service security -0.120, customer support 0.34, easy use 0.146, performance 0.077 and service content 0.066. The negative coefficient of independent variables implies the variables negatively affect customer of commercial bank of Ethiopia and also the positive coefficient implies the amount by which independent variables affect the customer satisfaction.

### 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

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 results revealed that the majority of current e-banking users are, Male, adult ages between 25-35, from Occupational, employed are the majority users, from educational level of the respondent were predominantly bachelor degree and the.

In general, adult people, employed, more educated and male are major e-banking users. From Service quality dimension, such as customer support, Easy use, Performance and service content has positive impact on customer satisfaction or these variables significance contribution in customer satisfaction. As a whole service quality dimension together has impact on the customer satisfaction of e-banking in commercial bank of Ethiopia. But some independent variables, customer support, ease use, services content and performance has positive correlation and positive regression coefficient with customer satisfaction of electronic banking and while, the other independent variables such as Reliability, transactional efficiency and service security, are negative correlation which means has less contribution in impact of customer satisfaction.

Under the demographic variables educational level, age, gender, and occupational have statistically significant and association with customer satisfaction In other words customer satisfaction in e-banking definitely dependent on one another with age, gender, educational level, marital status and occupational. And also e-banking services quality affected due to poorly developed telecommunication infrastructure, lack of reliable power supply and lack of knowledge from customers. Researcher concludes that increasing e-banking service quality, increasing customer satisfaction.

### **5.3. Recommendations**

The analysis of this work includes implications for commercial bank of Ethiopia as far as the satisfaction of their customers with different aspects of the e-banking services is concerned. Therefore, based on the study results, I would like to forward the following recommendations for Commercial Bank of Ethiopia.

Commercial Bank of Ethiopia should work on increasing the number of users from all aspects that are from gender, age, educational level, marital status and occupational. Commercial Bank of Ethiopia should give more attention on all service quality dimensions to improve customer satisfaction of e-banking as a general because; they are impact on customer satisfaction. Commercial Bank of Ethiopia should hard work on the e-banking service quality variables such as, customer support, ease use, performance and service content which have positive impact on customer satisfaction and also Commercial Bank of Ethiopia should emphases on the reliability, transaction efficiency and service security, to increases more service quality. The Banks advisable work with Ethio-telecom and Ethiopian electric power to solve services interruption and minimize the brunt of the consequence of unreliable services. And Commercial Bank of Ethiopia should increase the confidence of their customer as well as develop their skills and knowledge in using e-banking services. They could also employ the use of video presentation at Bank branches and on television to showcase the user friendliness of such services. This will help customer to be more familiar with the e-banking services.

At last, this study investigates the dimensions of e-banking service quality that has major impacts on customer satisfaction in case of commercial banks 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 and this thesis only concentrated on Commercial Bank of Ethiopia which is public bank, the researcher recommends future study carried out in other financial sectors.

## References

- Abaenew. (2013). An evaluation of service quality :A Critical Review and Mesuarement. *Journal of Cotenporary Management*, vol19, pp 15-18.
- Abor. (2004). service quality and its impact on the customer satisfaction ;emperical study on Ghana customer . *Internation Journal of America*, vol.56 pp. 98-99.
- Adriaana. (2006). service marketing and integration across the firm. *International journal of Management*, vol.45. pp.77-80.
- Afsar. (2010). Determinants of Customers Loyalty in the Banking Sector: Case of Pakistan. *African Journal of Business Management*, 1040 -1047.
- Ahmed, B. (2005). The Impact of E-Banking on Customer Satisfaction. *International Journal of Management*.
- Ala Eddin, M and Hassen, A. (2011). E- Banking functionality and out comes of customer satisfaction. *International Journal of Marketing Studies*, 3(1).
- Alabar,T.& Timothy. (2012). Electronic banking on customer satisfaction in Nigeria Banking industry. *International business and tommorrow*, 2(3).
- Aladwania and Palvia. (vol.56, pp 76-79). A national Customer satisfaction barometer :The sweedish experience. *International Journal of Marketing* .
- Alagheband, P. (2006). Adoption of Electronic Banking Service by Iranian Customers. <http://www.epubl.ltu.se>, 1653 - 1687.
- Allen, L. and Rai A. (1996). Operational Efficiency in E-Banking: An International Comparison . *Journal of Banking and Finance*, 655-672.
- Anin. (2005). Banking service quality provided by Commercial Banks and customer satisfaction . *American Journal*, vol 34 pp 889-92.
- Armstrong, R,W. and Seng, T.B. (2000). Corporate Customer Satisfaction in Banking Industry of Singapore. *International Journal of Bank Marketing*, 18(3).
- Assefa, M. (2013). The impact of Electronic Banking on Customer Satisfaction in Ethiopian Banking Industry. *MBA Thesis at Gonder Universirty*.

- Bateson. (1985). E-services opportunity and threats . *International Journal of management* , vol.21 pp 894-897.
- Bedi, M. (2010). An Integrated Framework for service quality, Customer Satisfaction and Behavioral Responses in Indian Banking Industry: A Coparision Public and Private Sector Banks. *Journal of Service Research*, 1, 157-172.
- Bitner and Hubbert. (1994). Electronic Banking in Malaysia; Note on evaluation of services and customer reaction. *International Journal of marketing* , 6(56), pp 221.
- Black,N.F, hockett,A.,Winkhofer,H and Ennew,C. (2001). The adaption of internet financial services :A Quality study ., *Retail and distribution management* , pp390-398.
- Block,c and Roering J. (1979). *Essential of consumer behavior : Concepts and Application*. dry den press.
- Bon and Ming . (2003). Leadership and service qualityin higher education . *International Journal Total quality Management* , vol 45 .pp 532-5344.
- Boyers,K.K Halloweu,R and Rath,A, V. (2002). e-Services operation strategy ; case study and method for analyzing operational benefit . *OERATION AMANGEMENT* , PP175-188.
- Brich and Young . (1997). Risk and Mnagement for electronic banking and electronic money activities. *European Journal* , vol 34 pp 89-92.
- Bultum, A. (2014). Factors affection adoprtn of e-banking system in Ethiopia. *Journal of Management Information System and e- Commerce*, 1.
- Byers and Lederer. (2001). Bankers perception of electronic banking in Pakistan . *Journal of internet banking* , vol. 63 pp. 700-705.
- Carl and Macdoniel. (2005). Factor affecting customer satisfaction in online banking services. *Journal of Marketing development and competative*, 59(655), pp 990.
- Caruna, A & Malta, M. (2002). Service Loyalty- The effect of service quality and the mediating role of customer satisfaction. *European Journal of Marketing*, 36, 811-828.
- Chakrabarty. (2006). Assesement of the relationship between service quality and customer satisfaction. *american journal of marketing*, vol.6, pp 87.



- Chen and Chen. (2009). identify the significant factor of influencing customer trust in the trust travel. *international journal of information technology*, vol.3 56-63.
- Chorafas. (1998). Mesuaring customer percieved online services quality management and managerial implication . *International Journal of Production and Operation Mangement* , vol. 12 pp 34-36.
- Classens, S., Glaessner, T. and Klingebiet. (n.d.). E-Finance in Emerging Market : Is Leap Fogging Possible? *World Bank Financial Sector Discussion*.
- Clemes. (2007). A Review of twenty years of SRQUAL research. *International Journal of quality and services* , vol,31, pp 119-120.
- Clottey and Collier. (2008). An examination of the relationship between service quality,customer satisfaction . *International Journal of Retail and Distribution*, vol.8, pp 890.
- Contrell. (1997). Service quality in the banking sector :the impact on service delivery . *European Journal of Research*, vol.8 pp 90-95.
- Corman. (1990). Service Management and A customer relationship management Approach. *International Journal of England*, 56(7), pp 19-21.
- Cronin JR,J.J and Tylor, S.A. (1992). The effect of fee banking on over all satisfaction : the use of automated teller machine. *international journal of bank marketing*, 13(4), pp33-40.
- David, J. (2010). Marketing matrixs: the difitive guide to measuring marketing performance .pearson education. In *New Jersey, Upper Saddle River: Inc*.
- Devidtin. (1995). Community banks are going online banking . *Journal Market*, vol 10 pp 456-459.
- Dhandabani, S. (2010). Linkage between service quality and customer loyalty in commercial banks of India. *International journal of management and strategy*, 1.
- Dobholkar. (2003). *Pschometrics theory*. New York: McGraw.
- DollaBitta. (vol.59,pp. 8-10). Productivity, quality, and relationship marketing in service operation . *International Journal of Cotemporary Hospitality Mngement*.
- Donnelly. (1995). The impact of internet banking service quality on customer satisfaction in the in the banking sector of Ghana. *School of Management* , vol.56, pp 875.
- Duplessis and Roussea. (1993). *Bankers in west Africa ; the story of British west Africa Limited*. London: Hutchinson.

- Farris, p. (2010). The determinant of satisfaction of e-banking on customer of Nigeria. *International Journal of Marketing* , vol 21, pp 76-77.
- Fenuga, O. (2010). The effect of electronic payment on customer service deliver. *International journal of economics development research & investment*, 1.
- Fornell, C. (1992). A national customer satisfaction barometre: The Swedish Experience. *Journal of Marketing*, 1, 6-21.
- Furs, K. & Nolle, D. (2002). *Internet Banking: Development and Prospets Working Papaer*. Office of Comptroller.
- Garvin, D. (1987). Computing on the eight dimension of quality. *Journal of Harvard Business* , 101-109.
- Gerrard ,P and Barton cunningham,J. (2003). the deffusion of enternet banking among singaporeconsumers. *Banking market*, 21, pp16-18.
- Gerrard, P., & Cunningham, J. (2006). The diffusion of internet banking in Singapore Customers. *International Journal Bank Marketincg*, 21, 16-28.
- Gersan. (1998). The impact of e-banking on customer satisfaction in Nigeria. *International Journal* , vol.34 pp 56-70.
- Gil and cervers . (2008). computing the eight demension of quality services . *international journal* , vol.5 pp 890-91.
- Gloessner and Klingebet. (2002). A customer perspective of e-services quality and transactional on engineering management. *International journal* , vol.21,pp 91-93.
- Gupta and Kemal. (2008). An explore study of young chinese customerers online shoping behaviour and service quality perception. *international journal of market*, vol,45,pp.39-41.
- Gurmmesson. (1991). Servise quality as competetive oppurtunity. *Journal of services marketing* , vol.3, pp 88.
- Gurting. (2006). *Marketing Research*. US: Prentice-Hall.
- Howcraft. (2000). Multiple item scale for assesing electronic services qquality . *International Journal of Research*, vol.97. pp.665-700.
- Hua, G. (2009). An expermental investgation of online banking adoption in China. *Journal Banking and Commerce*, 14.

- Iacobucci, Grayson, and Ostrom. (1994). Digital Banking in Asia: what do consumers really want? *Mckinsey and Company*, pp, 669-70.
- Jannatul, M. N. (2009). E-banking and customer satisfaction in Bangladesh: An analysis. *International review of business research papers*, 6(4), 145-156.
- Jayawardhena. (2002), pp 175-176). E-services operation strategy: case study and method for analyses operation benefit. *Journal of Operation Management*.
- Joch. (2003). the effect of service loyalty mediating role of customer satisfaction . *European Journal of Marketing* , vol.8 pp 90-94.
- Johansen, S. (1988). Statistical Analysis of Cointegrating Vectors. *Journal of Economic Dynamics and Control*, 12, 231-54.
- John and Joby. (2003). The antecedent of service quality and their influences on bank reputation evidence from the bank industry. *Managing service quality*, 13(1), pp79-80.
- Johnston, R. (1997). Identifying the critical Determinant of services Quality in Retail Banking : Importance & Effective. *International Journal of bank marketing*, 15(4).
- Joseph, M, McClure, C & Joseph, B. (1999). services quality in the banking sector: the impact of technology on service delivery. *International journal of bank market*, 17, 182-91.
- Jun, M, & Cai, S. (2001). The key Determinant of internet banking service quality : A content Analysis. *Journal of Bank marketing*, 19(7), 276-291.
- Kamrul, H. (2009). E-banking in Bangladesh : The feature of banking , School of Business study MA Thesis. *journal of state university of Bangladesh*.
- Kannanbirra and Narayan. (2005). service quality on banking sector ; the impact of technology on service delivery . *International Journal of banking market* , vol.12 pp 182-291.
- karjaluetto, H. Mattilo, M and Pentto, T. (2002). (2002). Factor underlying attitude formation to words online internet banking in Finland. *International journal of Bank market*, 261.
- Karjuloto, H, Mattilo, M and Pentto, T. (2002). Factor underlying attitude formation towards online internet banking in Finland. *bank marketing*, pp.261.
- Keiningham, T. (2005). Does customer satisfaction Lead to Profitability? the mediating role of Share of Wallet. *Journal of Marketing*, 15(2), 172-181.

- Kerem, K. (2003). Adaption of electronic Banking :Underlying customer Behaviour & Critical Success Factors Case study of Estonian . *Conferance of Technology and Every daylife Network Landon U.K.*
- Khalil, & Pearson. (n.d.). Influence of Trust on Internet Banking Acceptance. *Journal of Internet Banking & Commerce, 12(2).*
- Khrawish and Al-Sadi. (2012). Adaption of e-banking: emperical study on the Hong kong. *Journal of banking , vol.4 pp 810-816.*
- Kiang. (2000). The adaption of electronic banking in developing countries . *journal of articles of research, vol,12(2) pp . 49-53.*
- kinang,m.v,Raghu,T.s, Hcu-Minshaung,K,. ((2000)). marketing on the internet -who can benefit on the market. *1.27, pp. pp-383.*
- Klugman, J. a. (2007). Welfare impacts of food price inflation in Ethiopia; Poverty reduction and Economic management unit. *15, 34-41.*
- Kotler, p. (2000). marketing mangement. *New jercy;PRINTICE hall.*
- Kotler, P. and Armstrong ,G. (2002). *An introduction of Marketing.* New york.
- Kotler,p and coshione, J.A. (2009). the business of management and marketing in the age of furbulance AMACOM Dive. *business manging and marketing.*
- Laidler, E. (1985). *The demand for money: Theories and evidence* (second edition ed.).
- Lamb. (2000). Evaluation of e-banking : study of India and technology awarness . *International Journal of Banking , vol. 49 pp 622-627.*
- Larpsiri. (2002). Service management and marketing ; Customer management in service competition. *Journal of Management , 43(5), pp 91.*
- Lederer. (2001). Modeling the consequences of e-services quality.Marketing Intelegency and planing . *Marketing journal, pp 88-89.*
- Leelpongprasut,Prasong, P & Natsapun, P. (2005). A quality study of internet Banking in Thailand. *Journal of Information Technology and Management, 323-45.*
- LeGOW-Guarg. (2005). *Customer perception of e-banking service quality online shopping.* Emorland.
- Leow, H. (1999). Measuring service quality:Reexamination and extension . *The journal of Marketing , vol 51,pp 76.*

- Lewin. (2009). identifying the critical service quality determinant in retail banking .  
*International Journal of Marketing* , vol. 7 pp 24-27.
- Liao and Cheung. (2002). The effect of free banking on overall satisfaction ;the use of  
automated Teller Machine . *International journal of Banking market*, 21(6) ,pp  
65-66.
- Liol, C. (1974). *Inflation in developing countries*. Amesterdam Netherlands: North-  
Holland publishing company.
- Lockel and Littler. (1997). Service quality and critical revenue of service quality. *Journal  
of science of research*, vol 1. pp 56-62.
- Lui,C., & Arnet, K. (2000). Exploring the Factors Associated with Web site Succses in  
the context of Electronic commerce. *Journal of Information and Management*, 38.
- M, M. (2008). The deployment of e-learning in UK/European Corporate. *European  
Business Journal*, 14(30, pp 105.
- Madu,C.N and Madu,A.A. (2002). demension of quality. *internation jpournal of quality  
and Reliability Management*, 19, pp 246-259.
- Malak, J. (2007). Readiness of the Palestinian Banking Sector in Adapting the electronic  
Banking System : EXploratory Study , Ma Thesis . The Islamic University of  
Pales . *journal of Management* , 118-23.
- Mavri, M and Ioannou,G. (2006). customer perception on the online banking services.  
*international journal of customer study*, 30(61), pp.5552-560.
- Ming. (19(5), 995-996). Customer acceptance of electronic commerce : Integrating trust  
and risk with the technology. *International Journal of Banking* .
- Mols. (2000). the impact of the electronic services on the customer satisfaction :Case  
bank of Ghana. *Internation Journal of operation research*, vol.56 pp 98-102.
- Mountinoh. (1997). Determinant of the internet adaption by banks in India. *Journal  
Articles of Marketing*, vol.9 pp 499-502.
- Nency. (2001). An emperical Assesement and Appilication of SERQUAL in the minland  
china departement store. *TQM of China*, vol 54 pp 78-80.
- Nupur. (vol.64, pp,50--55). self-service technology:Understanding customer satisfaction  
with technology based services . *Journal of marketing* .
- Nyangos. (2009). Determining and assesing the determinant of e-services operation .  
*Managerial service quality*, vol.37, pp 677-678.

- Okoro. (2014). Internet based e-banking customer attitude :an emperical study information management. *Journal of research*, vol 67 pp 1555-1559.
- oliver, R. (1980). A cognitive model of the antecedent and consequence of satisfaction. *marketing research*, pp-460/469.
- Oumlil and Wilian. (2000). Customer satisfaction with online banking . *International Journal of Marketing* , vol.11 pp 567-70.
- Parasuraman, A, Zeithamal, V, and Berry, L. (1985). A conceptual model of service quality & its Implication for Future Research. *Journal of Marketing*, 49.
- Parasuraman, A., Zeithaml, V., & Berry, L. (1988). SERVQUAL: A Multiple -item scale for Measuring Customer Perception of Service quality. *Journal of Retailing*, 64.
- parasuraman, A, Zeithamal, V.A. and Berry LL. (1983). Conceptual model of services quality and its implication for future research . *marketing*, pp-41-45.
- Peter and Son. (1994). The model of customer satisfaction in the commercial bank of Pakistan. *International Journal of Banking*, 4(87), pp 881-87.
- Pikkarainen. (2004). Marketing Health services . In A. Jordan, *Scientific* (p. pp 90). Jordan: Aliazoi.
- Polatoglu and Ekin. (2001). E-services quality and virtual services quality demension . *International Journal of research marketing* , vol 18 pp 993-997.
- Rabsan. (2000). service quality insight and managerial implication from the fortier. *Journal of American marketing* , vol 9 pp 9-13.
- Rangsan, Nochai, & Titida. (2013). The impact of Internet Banking Services on Customer Satisfaction in Thailand : A Case study in Bangkok. *International Journal of Bank Marketing* , 987-91.
- Reichuheld. (1996). Internet banking patronage : an emperical investigation of Malaysia. *Journal of Internet banking and commerce*, 15(3), 330-333.
- Rice. (1997). National Network Operation center for the Telecommunication . *America Journal of research*, vol.60 pp 6-9.
- Saha and Zhao. (2005). Analysis of the literatures : Towards a resesch agend . *internet research* , vol.44, pp 557-559.
- Santose, J. (2003). E-services quality a model of Virtual services quality demension. *international journal of Management*, 13, pp233-246.

- Sathye, M. (1999). Adaption of Internet Banking by Australian consumers; An Emperical Investigation. *International Journal of Bank Marketing*, 17(7), 324-34.
- Schiffman and Kanuk. (2000). Identifying the determinant of the e-banking services quality . *International Journal of banking market*, vol.3. pp 34-37.
- Shostack. (1997). E-banking service quality and customer loyalty: Changing Dynamic of Puplic. *Global business and Management research*, vol 15, pp 881-83.
- Smith. (1996). Technology innovation and Banking in Negeria . *International Journal of America*, pp 67-77.
- Stevans. (2002). E-service quality :Definitioon,demension, and conceptual model. *Marketing science institute, cambridge*, vol.1,pp 445-457.
- Stone, M. (2001). E-services quality and impacts on customer satisfaction in Ghana. *International Journal of Marketing* , vol.8, pp 453-55.
- Tapiero. (1996). Service quality in the Banking Sector. *Journal of banking market*, vol.9(5), pp 165.
- Thakur, S. (2011). Service quality , Customer Satisfaction Loyalty : A Study with special referance of Indian Banking Industry. *Journal of Sri Krishma Research & Educational Concertunm*, 1(5), 8.
- Thornton and White. (2001). product market and technology strategy in banking and communication . *Journal of Ammerica research*, vol 24 pp 773-777.
- Tiwari and Buse. (2007). Financial services and internet services . *International Research* , vol.4 pp 1110-1118 .
- Tse, D. & Wilton, P. (1988). Models of customers satisfaction formation. *Journal of Marketing Research*, 25(2), 204-212.
- Tuchilla. (2000). Segementing online customers based on electronic service quality demension . *International conferance of acadamy of win business research*, pp 90-101.
- Turban, D. (2008). Electronic Commerce . In R. B. Tiwari, *Strategy Analysis*. Hamburg University Press.
- Wang and Wang. (2006). impact of internet service quality in banking sector . *banking management* .
- White and Nteli. (2004). A service quality model and its marketing implication. *Journal of marketing* , 15(7),pp 90-93.

- Wilkie. (1990). Financial Services and service quality. *International Journal of Management*, vol.13 pp 23-28.
- Willians. (2000). demensioniling ,measuring and predicting retail quality . *Journal of Retail*, vol 7 pp 183-97.
- Wolfinbarger, M. & Gilly, M. (2002). Dimensionalizing, Measuring & Predicting Quality of The E- Bankingl Experience. *Journal of Cambridge University*.
- Wondossen, T & Tsegai, G. (n.d.). E-payment Challenges and opportunities in Ethiopia. *Economic Commission For Africa*. Addis Ababa.
- Wu. (2006). Model of service quality demension ;manging service quality. *International Journal of research*, vol.31. pp 88-93.
- Yakhalef. (2001). The key determinant of internet banking service quality. *Internal Journal of Market*, vol 1 pp 56-70.
- Yang, Y. (1997). The security of electronic banking. *National Information Systems Security*, 26, pp. 505-525.
- Yang, Z & Peterson, R. (2004). Measuring customer perceived online service quality. *International Journal of Operation and Production Management*, 24(11).
- Yang, Z. & Fang, X. (2004). Online service quality dimesions and the relationship with satisfaction: A content Analysis of customer review of security brokerage services. *International journal of industry management*, 15(3).
- Yang, Z. & Jun, M. (2002). Customer perception of E-service quality: From internet purchaser and non-purchaser perspetives. *Journal of business strategy*, 19(1).
- Zhu. (2002). service quality and e-commerce in pakistan bank. *International Journal*, vol.18 pp 233-245.
- Zithml, V., Parasuraman, A., & Malhotra, A. (2002). Service Quality Delivery through Website: ACritical Review of Extant Knowledge. *Journal Academy of Marketing Science*, 30(4), 362-375.



# APPENDIX-A

## Questionnaire for Customers

### Jimma University Faculty of Business and Economics Department of Management: Post Graduate Program

This questionnaire is designed specifically to carryout research on the impact of e-banking services on customer satisfaction in case of Commercial Bank of Ethiopia Jimma town for partial fulfillment of the requirement for the Masters of Business Administration. I will be very happy if you will please answer the following questions **as candidly as you can**. It takes only 10-15 minutes. Please be assured that the responses you give are for academic purposes only.

I thank you in advance Tamiru Gizaw

Tell: 0912673359

#### Part I

##### Background of the information

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

1. **Gender:** Male  Female
2. **Age:** 18-24  25-35  36-50  51-60  above 60
3. **Marital status:** Single  Married  Separated  Divorced  Widowed
4. **Educational status:** Primary  High school  TVET  Bachelor degree   
Master's Degree  Doctorate Degree  above Doctorate Degree
5. **Occupation:** Unemployed  Student  Employed  Business man/woman  Pensioner   
Other \_\_\_\_\_

**Part II**  
**Customer Feelings about Electronic Banking**

Comment on scale from 1(Strongly dis agree) to 5 (strongly agree)

No	Service quality Dimensions	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
		1	2	3	4	5
<b><i>Reliability</i></b>						
	E-banking completes a task accurately					
	E-banking deliver the service exactly as promise					
	E-banking perform the service right at the right time					
<b><i>Transactions efficiency</i></b>						
	E-banking provide complete help function					
	Transaction process is fast					
<b><i>Customer support</i></b>						
	E-banking contains enough services					
	Case of problem happen, can contact staff immediately					
	E-banking contains responsible section to guide for common problem					
	E-banking provide knowledgeable staff to solve problem					
	Staff can describe step to use and condition to use clearly					
<b><i>Service security</i></b>						
	E-banking provide complete help function					
	E-Banking provide security for transaction					
	No problem during using e-banking					
	E-banking is secure					
	Feel safe when using e-banking					
	Can check validity and detail of past transaction every time					

<b>Ease use</b>						
	Easy find information in the e-banking system					
	E- banking easy to use					
	The language in e-banking displays is easy to understand					
	Information and text are clear and easy to understand					
	E- banking system provides clear instruction					
<b><i>performance</i></b>						
	E-banking is provided services in multi-language					
	E-banking provide 24hrs -7days services					
	Staff can describe step to use and condition to use clearly					
<b><i>Service content</i></b>						
	E-banking provide information that exactly fits needs					
	E-banking provides accurate information					
	E-banking provides information that trust					
<b><i>Customer satisfaction</i></b>						
	you are satisfied with the e-banking services provided by your bank					
	Overall service of e-banking is better than your expectation					
	You are completely satisfied with E-banking services					

## **APPENDIX-B**

### **Interview for each Branch manager**

**Q1.** Do you think satisfaction customer of e-banking services related age, gender, occupation and educational status?

1. Yes 2. No

If your answer is “Yes” or “No”; how? Write your opinion

**Q2.** What is the impact of e-banking services that affect customer satisfaction in commercial bank of Ethiopia?

**Q3.** Do you think customers are satisfied with the delivery of e-banking service?

1. Yes 2. No

**Q4.** Do you think e-banking providing services as expected and gives services for 24hr?

1. Yes 2.No, if your answer “No” justifies the problem.