

ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
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**THE EFFECT OF ELECTRONIC BANKING SERVICE
QUALITY ON CUSTOMER SATISFACTION:
IN THE CASE OF COMMERCIAL BANK OF ETHIOPIA**

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**St. Mary's University
Addis Ababa, Ethiopia**

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SCHOOL OF GRADUATE STUDIES
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STUDY ON THE COMMERCIAL BANK OF ETHIOPIA**

BY

SISAY ABEBE BALCHA

**A Thesis Submitted to St. Mary's University School of Graduate
Studies in Partial Fulfillment of The Requirements For The Degree
of Masters Of Business Administration**

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DECLARATION

I, the under signed, Declare that this thesis is my original work prepared under the guidance of Zemenu Aynadis (Ass.Prof). All sources of material used for the thesis have been duly acknowledged. I further conform that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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ABSTRACT

One of the biggest contemporary challenges of management in service industries is providing the right quality to maintaining customer satisfaction and getting positive word of mouth from the consumers. Service quality and customer satisfaction has increasingly been identified as key factors for influencing Electronic banking customers for their being loyal to the bank. This study seeks to examine the effect of electronic banking service quality on customer satisfaction among saving account customers in six selected branches of west Addis district (Habtegiorgis, Geja sefer, Teklehaymanot, pawlos, sumaletera and Anwar mesgid) of the CBE. A survey research was conducted that primarily used quantitative data. A total of 190 bank customers from all selected branches responded to the questionnaire items that measured the research variables. A descriptive ANOVA and correlation analysis was carried out and revealed that service quality dimensions are significant predictors of customer satisfaction. More over logistic regression analysis carried out and the result; Speedy and Quick service, adequate Amount of cash limit to be withdrawn in a day, Employees readiness to response quickly, easiness to regain the captured, expired and lost cards, simplicity and clear language, Appearance of the ATM facility and its Attractiveness, availability of statement printing are identified as a determining factors of Customer satisfaction. The effects of demographic and personal banking detail indicators of service quality perception, and customer satisfaction are also examined. The result revealed that saving account customers' perception of service quality influenced by differences in age, level of education, occupation and average re-patronage per month. Age and sex were the demographic variables influencing customers' satisfaction. To overcome the methodological limitation of this study, the branches shall use an in depth full study with a longitudinal design and relatively increased sample size. The result of this study implies management of the six branches shall design appropriate marketing strategies to achieve an increased service quality via boosting customer satisfaction.

Key words: Service quality, Customer Satisfaction, Electronic banking.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The new economy, also called e -economy, is the most frequently used term in economic and technical literature, discussions of scientists, businessmen and politicians beside globalization and information technology society. Three planes of understanding of the new economy can be distinguished: as a system of new principles explaining how economic subjects function on the market; as activities of economic subjects in the strongly changed Conditions (Anisoara, 2008). Owing to the dynamic development of technical progress, especially in information technology economic subjects change completely strategy of their activities many times. Information and knowledge as main economic categories, which are the basis of the contemporary business, are the foundation of activity another term is assigned to this understanding, namely knowledge - based-economy. The third plane, new economy treated as a subject, namely determining activities of an enterprise in the IT sector. Therefore, the new economy, also called cyber-economy, constitutes a new paradigm of business. On this virtual market E-business is a new form of an exchange of resources by means of information technology systems and internet technologies, conducted on-line through electronic connections and an information exchange by use of electronic multimedia such as Internet, cable and satellite television, telephony, electronic cards, Intra and Extranet at the national and international level (Camelia, 2008).

E-banking can improve a bank's efficiency and competitiveness, so that existing and potential customers can benefit from a greater degree of convenience in affecting transactions. This increased level of convenience offered by the bank, when combined with new services, can expand the bank's target customers beyond those in traditional markets. A bank may be faced with different levels of risks and expectations arising from electronic banking as opposed to traditional banking (Olanipekun, 2013).

Furthermore, customers who rely on e -banking services may have greater intolerance for a system that is unreliable or one that does not provide accurate and current information. Clearly, the longevity of e-banking depends on its accuracy, reliability and accountability. The challenge for many banks is to ensure that savings from the electronic banking technology more than offset

the costs and risks involved in such changes to their systems (Wahid, 2013). While financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counterparties, poor portfolio risk management or a lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counterparties (Karen, 2002).

An increase in social expectations in relation to subjects rendering financial services, dissemination of new technologies, more developing technical culture of society, an increase in importance on information technology in economy, business globalization, consolidation of banks and an increase in competitiveness are only a few reasons which had an influence on a type and quality of services rendered by banks. It leads to a necessity of bank strategies modification imposed by costs reduction, change of clients, consumption patterns, dynamic development of new technologies, and polarization of clients because of their ability to use the Internet and positive attitude towards electronic media. As a result, a new quality of bank services is being provided and clients will gradually change their perception of bank sector institutions (Mirabi, 2008).

Satisfaction is a crucial concern for both customers and organizations especially for banks. However, the concept of satisfaction is subjective and varies from person to person as well as product to product. Value and quality are the main concepts incorporated in many literatures of the customer satisfaction. According to (Zeithaml, Bitner, & Gremler, 2006) value is the importance attached to services based on their usage and the amount paid in exchange. On the other hand, there is no universally accepted definition of quality. For some quality is achieving or reaching for the highest standard instead of being satisfied with the sloppy or fraudulent (Parasuraman Z. &, 1991). To others, differences in quality amount to differences in the quality level of some desired ingredient or attribute. To many academics, quality refers to the amounts of the non priced attributes contained in each unit of the priced attribute (Garvin, 1988).

Service providers must render quality service to their customers. Moreover, understanding and meeting customers' expectations and subsequently being different from competitors are important in order to survive and excel throughout the stiff competition (Kumbhar, 2011).

Customers in Ethiopia are late adopters of the internet and its applications with regard to electronic banking. It looks that electronic banking is facing difficulties in Ethiopia. Ethiopian

banking system is still developing as compared to the rest of the world and electronic payment systems are at an embryonic stage. Creating an electronic banking in Ethiopia is the same as to building a web business for all who are participating in the economy of the country. This leads the country to the electronic business (e-business). The e-business or E-commerce is about using electronic techniques to create opportunities, create new markets, new processes and growth the creation of wealth using electronic mediums (Abreham., 2012).

The advancement of information technology in today's banking system has become simple, speedier and readily accessible through various devices such as personal computers, mobile phones, etc. The electronic banking services include Automated Teller Machines (ATM), Mobile banking, Internet Banking, Tele Banking, Electronic Credit cards, (Abdi, 2006).

As a result of technological improvement and dynamism the Banking sector is experiencing rapid changes and this demands banks to serve their customers electronically. The evolution of e-banking started from the use of Automatic Teller Machine (ATM) and Finland is the first country in the world to have taken a lead in e-banking (Geeta, 2014).

The National bank of Ethiopia (NBE) inaugurated its new centralized, online, real-time, electronic (CORE) Banking system in effect since Nov 2013 in order to facilitate the payment of the banking system and also a mandatory to use electronic banking that enable banks to provide mobile, internet and card banking services. Following the implementation of the NBE's national payment system(NPS) in 2011, a plat form which integrates all electronic inter-bank money transactions, all Ethiopian banks were required to deploy CORE banking solutions.

The Commercial Bank of Ethiopia is one of the publicly owned banks in Ethiopia. Currently under fifteen districts it has more than 980 branches all across Ethiopia. Aiming at enhancing efficient and effective service delivery, since November 2008 the bank engaged in full implementation business process reengineering.

Out of the 74 branches under West Addis district of the Commercial Bank of Ethiopia, this study was conducted on six branches which are Habtegiorgis, Geja sefer, Teklehaymanot, pawlos, sumaletera and Anwar mesgid Branches. It focuses on effect of E-banking service quality on customer satisfaction.

1.2 Statement of the Problem

One of the major significance of e-banking product and services is improved efficiency and effectiveness of the operations so that transactions can be processed faster and most conveniently. Thus, it has enhanced customer services, effective distribution, improved operations, faster access to information and improved internal processes. This implies that customers benefit ranges from reduced frequency of going to the banking halls to handling of cash (Wahid, 2013; Karen, 2002; Bordens & Abbott, 2011).

However, despite this importance of e-banking, closer observation shows that there are still long queues seen in some banking halls even as customer still handle too much cash, problem of frequent network failure which have adverse effect and inadequate awareness of available e-banking production and services, even as empirical evidence shows that level of understanding of a product and its commensurate benefits determines the reactions of customers to it and patronage (Simon, 2013).

The introduction of electronic banking in to the banking sector helps to bring customer satisfaction and service quality to enhance the banks' profitability. This technology improves customer satisfaction and service quality. The old age people are generally shy of using ATM because of perceived risk of failure, complexity, security and lack of personalized service (Nupur, 2010). (Abreham., 2012) described several benefits of electronic banking like transferring money, collecting receivable, paying bill, productivity gains, transaction cost reduction, customer service improvement and the same time establishing a means to control the overall activities on banking accounts.

Since e-banking service adoption by banks, customers seem not willing to adapt to these services and this is evident by increased queues in the banking halls, customers are still carrying large amount of cash, which points to their being dissatisfied with the services. However, banks have tried to improve their systems by building more infrastructures and new services like mobile banking to increase customer satisfaction but the problem has persisted. This is probably due to the increasing problems associated with e-banking systems.

Currently there are some factors which affect customer satisfaction and service quality in electronic banking service in most banks in general and in Commercial Bank of Ethiopia in particular. Those are machine out of service, machine run out of cash, failure to provide printing

statement, card get blocked, frequent breakdown of ATM service, lack of sufficient technician for maintenance of the breakdown of ATM machine, lack of sufficient alternative system which substitute ATM service for the customer when temporary problem happen in the machine, interruption of network, and reversing a transaction and refund is not possible and hardly do people talk about problems of these services. Besides, lack of fair distribution of e-banking service in all over branches of CBE.

Satisfaction and service quality is a crucial concern for both customers and organizations including banks. Although many studies support the relationship, service quality measurement remain a controversial issue. In terms of measurement methodologies, some authors suggested that the service quality concept results from the comparison of performance perceptions with expectations (Parasuaman & Zeithmal, 1988). This conceptualization of service quality guided by a gap theory which uses a service quality scale called SERVQUAL to measure the quality of a service (Siddiqi K. O., 2011) studied the interrelationship between service quality and customer satisfaction using the five service quality dimensions (i.e. Tangibility, Reliability, Responsiveness, Assurance and Empathy) and the two dimensions (i.e. relative attitude and repeat patronage behavior) results showed in Bangladesh retail banking industry tangibility, reliability and responsiveness dimensions has medium correlation to customer satisfaction while assurance and empathy has a large positive correlation to customer satisfaction.

Standing on the above problems; the researcher is interested to investigate and analyze the Effect of e-banking Service Quality on customer satisfaction.

1.3 Research Question

1. What are e-banking service quality factors to determine customer satisfaction?
2. Does e-banking service quality reduced branch visits for customers?
3. Which service quality dimensions (i.e. Tangibility Reliability, Responsiveness, Assurance and empathy) have significant positive contribution to customers' satisfaction?

1.4 Objective of the Study

1.4.1 General Objective

The general objective of the study is to assess and examine the Effect of e-banking service Quality on customers' satisfaction of saving account holders of the commercial bank of Ethiopia with particular selected branches.

1.4.2 Specific Objectives

1. To analyze if e-banking service has reduced the visits of branches for customers
2. To identify factors that determine customer satisfaction
3. To examine the major challenges of e-banking from customers point of view.
4. To determine the effects of service quality dimensions (Reliability, Responsiveness, Assurance, Empathy and Tangibility) have on customers' satisfaction.

1.5 Research Hypothesis

Based on the research objectives and questions of the study the following hypotheses are developed and were tested in this study:

H₁: Reliability dimension of service quality has a significant positive effect on customer satisfaction.

H₂: Responsiveness dimension of service quality has a significant positive effect on customer satisfaction.

H₃: Assurance dimension of service quality has a significant positive effect on customer satisfaction

H₄: Empathy dimension of service quality has a significant positive effect on customer satisfaction.

H₅: Tangibles dimension of service quality has a significant positive effect on customer satisfaction

1.6 Scope and Limitation of the study

1.6.1 Delimitation (Scope) of the Study

The scope of this study is delimited to see the effect of e-banking service quality on customer satisfaction by using the five dimensions of service quality; these are reliability, responsiveness, assurance, empathy, and tangibles (Parasuaman & Zeithmal, 1988). The study was conducted on Commercial Bank of Ethiopia selected branches. The study was restricted to specific area which is west Addis District six selected branches (Habtegiorgis, Geja sefer, Teklehaymanot, pawlos, sumaletera and Anwar mesgid) as opposed to the entire branches of CBE all across the country. The study only focus on Ebanking services ATM, POS and Mobile banking.

1.6.2 Limitation of the study

First, in this study those customers who have saving account and waiting for e-banking services at Commercial Bank of Ethiopia, selected branches in the time of data collection was taken as respondents. For instance like customers who send and receive local transfers were not included in the study unless they are account holders as e-banking service is given to account holders in the bank.

The Second limitation of this study is that it only considers customers perspective of e-banking and it does not take in to consideration what perspective do all bankers, employees and other stakeholders have on the technology. In addition to this, a larger and more representative sample will give broader representation to identify the effect of e banking service quality on customer satisfaction.

Third, only the five service quality dimension variables were used to see their Effect. Incorporating other variables like company reputation, access, security etc may give a more comprehensive picture.

1.7 Significance of the Study

First, the study would be useful for Commercial Bank of Ethiopia in order to see the Effect of E-banking service quality on customers' satisfaction. Second, it helps in understanding what

attitude customers' have towards e-banking. Third, it would be a good indicator for the managers to identify the gap between the perception about electronic banking and the actual customer satisfaction generated from this service. This will shade some light on what actions the branches should take in order to benefit from the opportunities.

1.8 Organization of the Paper

This study is organized in five chapters. The first chapter presents, background of the study, statement of the problem, objectives of the study, Scope and Limitation of the study Significance of the study, and Organization of the paper. Chapter two presents literature review. Third chapter deals with the methodology of the study in which data type and source, method of data collection and instrumentation, research design and sampling procedure, data processing and method of data analysis. Chapter Four presents the results and discussion. Finally, chapter five provides conclusions and recommendations.

CHAPTER TWO

LITRATURE REVIEW

2.1 Introduction

This chapter presents the review of past literatures to clarify the various terms used in this study that constitute the variables tested. Firstly, it looks into the term E-banking service quality and its characteristics followed by dimensions of service quality. Then, the definition and explanation of the concepts of customer satisfaction as mediating and ultimate dependent variable of the study are discussed in detail.

Finally, citations of past research concerning the relationship between E-banking service quality and customer satisfaction.

2.2 E-Banking

2.2.1 Meaning of E-Banking

The concept of electronic banking has been defined in many ways; (Daniel, 1999) defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as personal computers and mobile phone with browser or desktop software, telephone or digital television.

According to (Abdi, 2006) electronic banking defined as any use of information and communication technology and electronic means by a bank to conduct transactions and have interaction with stakeholders.

(Simon, 2013) also defined electronic payment as a system of payment whereby transaction takes place electronically without the use of cash. (Magemhe, 2002) Defined electronic banking (e-banking) is nothing but e-business in banking industry. E-banking is a generic term for delivery of banking services and products through electronic channels, such as the telephone, the internet, the cell phone, etc. The concept and scope of e-banking is still evolving. It facilitates an effective payment and accounting system thereby enhancing the speed of delivery of banking services considerably (R.K.Uppal, 2007). (Ovia, 2001) Argues that electronic banking is a product of e-

commerce in the field of banking and financial services. In what can be describe as business to consumer domain for balance enquiry request for cheque books recording stop payment instruction balance transfer instruction account opening and other forms of traditional banking service. Banks are also offering payment services on behalf of their customer who shop indifferent e-shops.

Electronic banking has been around for quite some time in the form of automatic teller machines (ATMs) and telephone transactions. In more recent times, it has been transformed by the internet a new delivery channel that has facilitated banking transactions for both customers and banks (R. Nitsure, 2003).

2.2.2 Types of E-Banking

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

ATM

Automated Teller Machine (ATM) is a machine where cash withdrawal can be made over the machine without going in to the banking hall. It also sells recharge cards and transfer funds; it can be accessed 24 hours/7 days with account balance enquiry (Fenuga, 2010).

INTERNET BANKING

Internet banking allows customers of a financial institution to conduct financial transactions on a secure website operated by the institution, which can be a retail or virtual bank, credit union or society. It may include of any transactions related to online usage. Banks increasingly operate websites through which customers are able not only to inquire about account balances, interest and exchange rates but also to conduct a range of transactions. Unfortunately, data on Internet banking are scarce, and differences in definitions make cross-country comparisons difficult (Alabar, 2010).

POS

Point of sale (POS) also sometimes referred to as point of purchase (POP) or checkout is the location where a transaction occurs. A "checkout" refers to a POS terminal or more generally to the hardware and software used for checkouts, the equivalent of an electronic cash register. A POS terminal manages the selling process by a salesperson accessible interface. The same system allows the creation and printing of the receipt. Because of the expense involved with a POS system, the eBay guide recommends that if annual revenue exceeds the threshold of \$700,000, investment in a POS system will be advantageous. POS systems record sales for business and tax purposes. Illegal software dubbed "zappers" is increasingly used on them to falsify these records with a view to evading the payment of taxes (Shittu Olorunsegun, 2010).

MOBILE BANKING

Mobile banking (also known as M-Banking, mbanking) is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA). The earliest mobile banking services were offered over SMS, a service known as SMS banking. Mobile banking is used in many parts of the world with little or no infrastructure, especially remote and rural areas. This aspect of mobile commerce is also popular in countries where most of their population is un-banked. In most of these places, banks can only be found in big cities, and customers have to travel hundreds of miles to the nearest bank. The scope of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information (Tiwari, 2007).

2.3 Service

2.3.1. What is Service?

A lot of definitions have been given to service by different scholars. Two decades ago, According to (Webster, Reprinted 1983) cited in (Nukpezah & Nyumuyo, 2009) service is defined as "Anything provided by a dealer or manufacturer, that is helpful for people who have bought things from him like maintenance, supplies installation, assemblies, repairs, etc, ". But now, this definition is not sufficient to explain what service means. Currently, many scholars are modifying the definition of service which makes it compatible with today's business world.

According to (Kotler & Armstrong, 2011) service is “Any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything”. Grooroos (2007) also defined service as activity or series of activities of more or less intangible nature that normally, but not essentially, take place in communications between the customer and service providers and/or their systems, which are provided as solutions to customer problems.

Quinn and Gagnon (1986) mention that services have different characteristics and they differ based on the nature of the service. The main purpose of service industry is to manage customer satisfaction.

According to Grooroos (2007) services are provided with high customers’ involvement and it is intangible. According to Parasuraman, Berry and Zeithaml (1985) services are characterized by inseparability, intangibility, heterogeneity, and Perish ability. Gilmore (2003) explains the services feature as follows. Services are intangible i.e. that cannot be feel, see, or test. Services are perishable, if there is no one who will use the services, that particular service is lost and perishable. Inseparability or simultaneous provision and consumption, and it cannot be stored for future.

2.3.2. Service Quality

Service quality has been defined as a breach between the customer’s prospect of a service and the customer’s perception of the service providers (Parasuraman, Berry, & Zeithaml, 1985). Now, there is no practical, worldwide, or all inclusive definition of service quality. Grooroos (2007) defines it as “the result of an evaluation process where the user compares his expectations with the service he perceived he has consumed”. Definitions of quality incorporated: (a) satisfying the customer or exceeding expectations; (b) product of service features that please declared needs; (c) conformance to obviously specific necessities; and (d) robustness for use, whereby the product meets the customers’ needs and is free of deficiency (Toyin, David, & Stodnick, 2008).

2.3.3. The Five Service Quality Dimensions

Exploratory research by (Parasuraman, Berry, & Zeithaml, 1985), first identified ten overlapping dimensions of service quality which consumers use to assess the quality of a service. The dimensions were: - responsiveness, reliability, competence, courtesy, communication, access, credibility, understanding, security and tangibles. In their 1988 work, the ten dimensions reduced to five: reliability, tangibles, responsiveness, remained the same, but the other seven components merged into two aggregate dimensions called empathy and assurance.

(Kotler & Keller, 2012) in their book defined the five service quality dimensions as follows:

Reliability – the ability to perform the promised service dependably and accurately. This dimension is critical as all customers want to deal with firms that keep their promises and this is generally implicitly communicated to the firm’s customers (Zeithaml, Bitner, & Gremler, 2006).

Responsiveness:-willingness to help customers and provide prompt service. This dimension is concerned about dealing with the customer’s questions, requests, and complaints attentively and promptly (Andaleeb & Conway, 2006).

Assurance: - the Knowledge and courtesy of employees and their ability to convey trust and confidence. The trust and confidence may be represented in the personnel who link the customer to the organization (Bolton & Saxena-Iyer, 2009).

Empathy: - the provision of individualized attention and caring to customers. There are numerous ways that empathy can be provided: knowing the customer’s preference, his name, and his needs. Many small companies use this approach to render customized services as a competitive advantage over the larger firms (Zeithaml, Bitner, & Gremler, 2006).

Tangibles: - the appearance of equipment, physical facilities, personal and communication materials. It translates to the restaurant’s the appearance and condition of the cutlery, interiors, uniform of the staff, the appearance and tableware, and design of the menu, restaurant signage and promotion system (Andaleeb & Conway, 2006).

Service quality is an elusive and abstract construct that is difficult to define and measure (Parasuaman & Zeithmal, 1988).As a result of the difficulty in defining quality, the service quality measurement has also turned to be a debating issue. In terms of methodologies and measurement, some authors recommended that the service quality concept results from the comparison of performance perceptions with expectations (Cronin & Taylor, 1992). While others argue that it is derived from perceptions of performance alone (Parasuaman & Zeithmal, 1988),and that the expectations are irrelevant and even provide misleading information for a model intended to evaluate perceived service quality. Thus, the inclusion or not of the expectations as a determinant of the service has led to two distinct paradigms: the disconfirmation paradigm and the perception paradigm.

There have been a variety of service quality models SERVQUAL was one of the widely used model, which was developed by (Parasuraman, Berry, & Zeithaml, 1985). The model proposed that service quality is measured by five dimensions: assurance, reliability, empathy, tangibles and responsiveness. Each dimension is measured with four to five items. SERVQUAL consists of 22 pairs of items: one member of each pair assessing the customer's expectations, while the other assesses perceptions of service quality. Service quality is determined by calculating the difference between expectations and perceptions for each item (Jain & Gupta, 2004).

This aspect of the administration of SERVQUAL has been criticized on the grounds that there is a lack of evidence supporting the expectation-performance gap as a predictive measure of service quality (Cronin & Taylor, 1992). Other researchers suggested that the calculation of difference scores could result in poor reliability, especially if the expectations scale was truncated by ceiling effects (Jain & Gupta, 2004). This would occur if customer expectations of service were very high.

However, one serious trouble with the SERVQUAL scale is that it entails enormous data gathering task. Employing a long questionnaire, one is necessary to collect data about consumers' expectations as well as perceptions of the performance on each of the 22 service quality scale attributes (Jain & Gupta, 2004).

Cronin and Taylor (Cronin & Taylor, 1992) found that the performance element out-performed SERVQUAL in case of reliabilities, providing some proof to sustain these concerns.

2.3.4. Electronic banking services quality dimensions

Electronic services quality is also a concept studied so much. Nevertheless, the dimensions composing these services quality and applied items for evaluating these dimensions are changing. Electronic services quality dimensions have developed by (Parasuraman, Berry, & Zeithaml, 1985), in order to measuring consumers' comprehended services quality. In this research fourfold dimensions of electronic services quality have been studied according to Zintheimel and Parasuraman viewpoints. These dimensions include four dimensions efficiency, System Availability, Fulfillment, and Privacy.

Efficiency refers to facility and System Availability and using speed of site. Efficiency is an effective key factor for electronic services quality consists of reference facility, access to desirable services, finding information related to services and access to information with minimum effort (Parasuraman et al, 2005). This dimension consists of indexes like facility in using bank site, facilitate searching requirements, and speed in providing information and doing trades and so on.

Fulfillment is amplitude in which site expectations about order delivering and access to those items is provided. The significant dimension in traditional services quality is "performance" also known in electronic services quality.

System Availability refers to correct technical use of site. Probability of permanent access to company site, correct operation and performance and absence of its disablement and not blocking site pages after entering information related to the order, show suitable technical function of bank site (Parasuraman et al, 2005).

Privacy emphasize on site security and protecting information related to customers (Lee and Chen, 2011). Since websites often collect customers' sensitive personal information, personal frontage includes this issue that there is a guarantee for preserving and not sharing data related to purchase behavior, and also credit cards information is protected. Or in other words a degree that

customer believes their personal information and private frontage are protected against violation (Zinthamel et al, 2000; Parasuraman et al, 2005).

Customer is the key player for the development of trade, industry and service sector particularly in financial services. So, the significance of customer service in the banking sector came to force to compete in a market driven environment. Measuring service quality in the service sector particularly in the banking sector is more difficult than measuring the quality of manufactured goods. The service sector as a whole is very heterogeneous and what is heterogeneous may hold true for one service and may not hold for another service sector. For example, the nature of banking services is very different provided by a hospital and hotel. In fact, in banking industry there are a variety of services like retail banking, corporate banking, investment banking, commercial banking, personnel banking, wholesale banking, internet banking etc; each banking having a variety of services. Due to this differentiation, services in this industry could not be standardized, moreover these services are intangible in nature which could not be compared or seen.

The concept of customer satisfaction and service quality is interrelated with each other. Moreover satisfaction of customer depends upon service quality and service quality is increasingly offered as a strategy by marketers to position themselves more effectively in the market place (Parasuraman et.al 1988; Cronin and Taylor 1992). Due to the era of e-banking quality of service has been improved a lot as compare to traditional banking services. Internet banking, Mobile banking, automated teller machine, electronic fund transfer has totally changed the way of providing services by the banks. However some banks like in private sector are providing it in a very efficient way while others are making efforts to adopt it.

According to Shahin and Samea (2010) customer's perception is much more crucial to managing customer's relation management because it shows how customers perceive the quality of the services. This is the result of the comparison customer's expectation to the real view or experiences of the customers. According to Grooroos (2007), the view of customer's over the bundle of services provided to them, the dimension may be the technical and functional. And he added that the result of the difference between the evaluated (measuring) expectation and received service process.

Customer satisfaction has become a major area of marketing that has received considerable publications from practitioners and scholars in the last two decades. Satisfaction is a person's feeling of pleasure or disappointment resulting from comparing a product's performance (outcome) in relation to his or her expectation. Customer satisfaction has been recognized as an important element that drives customer retention, loyalty and post-purchase behavior of customers. It is well documented that the measurement of customer satisfaction regarding the service quality of firms is a necessary means by which organizations delve into the minds of its customers for useful feedback that could form the basis for effective marketing strategy. Since firms exist to satisfy customers by meeting their requirements, it is crucial for banks that offer internet banking services to periodically and consistently measure the satisfaction of their customers. As customers use the banking internet services, it might be that they are not satisfied, to some extent, with certain dimensions of the service quality.

Customer satisfaction is more critical in internet companies because customers demand a high quality products or services and if they are unsatisfied, it is easy for them to move away to another site and leave those companies forever. Thus, the internet companies need to know the customer's requirements for satisfactory level. Some parameters of customer's satisfaction include numbers of clicks needed to find what they want, amount of information they need, response time and speed of webpage. Service quality has found as one of the significant factors in distinguishing services and products. Service quality is an important tool to measure customer satisfaction. There is a close relationship between service quality and customer satisfaction. Customer satisfaction can be protected by providing products or services with high quality. One of the famous tools to assess customer satisfaction is SERVQUAL model.

2.4. Customer Satisfaction

2.4.1. Customer Satisfaction

Satisfaction became a popular issue in marketing during 1980s and is a doubtful topic during both business expansions and recessions. Most thoughts on customer satisfaction involve customer expectation of the service provision, actual delivery of the customer expectation and experience that are either unmet or exceeded (Holjevac, Marković, & Raspor, 2010). If expectations are exceeded the perception, positive disconfirmation occurred, while a negative

disconfirmation occurred due to customer experience is poorer than expected, the key to sustainable competitive advantage lies in delivering high quality service that will in turn result in satisfied customers (Yoo & Park, 2007).

Kotler and Keller (2012) explained customer satisfaction as the customer's observation that compares their pre-purchase expectations with post purchase observation. Oliver (1997) defines satisfaction as “the consumer’s final response about their consumption”, after utilization choice by the consumer that a service provided an enjoyable level of consumption-related fulfillment, including under or over-fulfillment. Oliver (1997) point of view Customer satisfaction is the assessment a customer makes to a certain exchange, which reflect the relationship of the customer's anticipation and their real opinion to products and services they receive (Rahman, Khan, & Haque, 2012).

Some authors think customer satisfaction can be measured. For example: Luke (2007) suggested using overall measurement to record customers' response to different attributes of products and services. Luke recognized seven factors that manipulate customer satisfaction: price, service content, corporate image, convenience, equipment, staff and procedure. (Huang, 1998) Cited in (Ragavan & Mageh, 2013)also defined five factors used to evaluate customer satisfaction: service, product, overall performance of products, staff, and closeness to expectation.

2.5. The Relationship between Service Qualities and Customer Satisfaction

Pleased customers tend to be devoted to the company and more likely to return. Understanding satisfaction is vital in the sense that dissatisfied customers hardly ever complain, but rather simply purchase from another service provider (Mueller, Palmer, Mack, & McMullan, 2003). Satisfaction is most commonly described in terms of the disconfirmation approach, which describes it as the difference between a customer’s pre-purchase expectations and post-purchase perceptions of the concrete service performed (Chang, 2009).The general thought is that satisfaction mediates the relationship among perceived service quality and firm performance (Babikas, Bienstock, & Van Scotter, 2004). However, some researches propose that satisfaction is a precursor to service quality (Millán & Esteban, 2004).

Substantial confusion continues to exist concerning the relationship between customer satisfaction and service quality. Millán and Esteban (2004), maintains that service quality and satisfaction have frequently been used interchangeably. Differences between customer satisfaction and service quality include: a) satisfaction is a post- experience decision customer experience while quality is not; b) in the satisfaction literature “expectations reflect anticipated performance” made by customers about levels of performance during their contact (Burns, 2003).

According to (Babikas, Bienstock, & Van Scotter, 2004) there is no obvious definition of satisfaction, although most definitions would include “affective, evaluative or emotional response.” The distinction between perceived service quality and satisfaction is important because higher officials need to know whether their purpose is to present the maximum level of perceived service quality or to have satisfied customers. The standard of contrast in forming satisfaction is predictive expectations, or what the consumers consider will happen. Perceived service quality is the consequence of a comparison of performance and what the consumer senses a firm should provide. Burns (2003) explains negative disconfirmation as a happening when performance is less than expectations. Positive disconfirmation is obvious when performance is greater than expectations. Customer satisfaction results in the disconfirmation of prior expectation that is if the service provider meets or exceeds expectations then the customer is more likely to be pleased (Laroche, Ueltschy, Shuzo, & Cleveland, 2004).

Millán and Esteban (2004) assert that satisfaction is perceived as the final result of all actions carried out during the process of purchase and consumption. All evaluated definitions entail: a) the existence of an objective that the consumer wishes to reach; 2) the attainment (satisfaction) of this objective can only be judged by taking a standard of comparison as a reference; and c) the evaluation process of satisfaction involves the intervention of at least two stimuli; a result and a reference or standard of comparison (Kandampully & –Hui-Hu, 2007). Satisfaction is related to size and direction of “non-confirmatory: experience defined by the difference between initial expectations of the individual and the real outcome resulted.” While expectations are the needs or desires of the consumer, based on what the consumer senses should be delivered prior to receiving it. Perceptions are the viewpoints of the consumer relative to the service received. The

consumer's judgment of satisfaction or dissatisfaction rely on how the consumer perceives the real result obtained relative to what was anticipated (Bakr, Mustafa, & al-Din, 2005).

A great deal of the attention given to service quality is motivated by the foundation that it will increase customer satisfaction and ultimately lead to better financial performance (Babikas, Bienstock, & Van Scotter, 2004). The quality of products and services has also been associated to external indicators of customer satisfaction like warranty, complaints, litigation and market share (Kandampully & –Hui-Hu, 2007). Pleased customers often lead to loyal customers who continuously repurchase the service or product. The industry challenges that not all companies are equally affected by customer satisfaction. Though, all organizations are relied upon repeated purchases that lead to higher profitability. Empirical evidence suggests that customer satisfaction arbitrates the relationship between service quality and firm performance (Babikas, Bienstock, & Van Scotter, 2004).

2.6. Difference between Physical and Virtual Banking

Physical banking has been the usual way that customers make use of a banking transaction and financial services company. Physical banking involves physical branches that are located around the most populated areas to serve their clients and allow people to complete their transactions and services in person (Sulaiman, 2005). Virtual banking, which does not involve any physical action (going to a bank building, standing in a line, and face to face communication), exists in the form of ATMs, phone banking, home banking, and Internet banking. A virtual bank is a non-branch bank that involves the provision of fully automated banking services. Online shopping has become available and more convenient, and secure because of the appearance of online banking (McDougall, 1996).

The major function of banking is to mobilize savings and transfers to entrepreneurs. Banks, financial organizations, or financial applications such as Microsoft banking, Quicken, ADP, and Bank of America have found easy and secure ways to complete commercial and individual transactions through the use of Internet and also emphasized that Internet banks are the most important financial tools and services in the modern economy.

2.7. Conceptual Framework

Figure 2.1, shows the relationship between variables (service quality and customer satisfaction).

It is developed based on the service quality dimensions developed by (Parasuraman, Berry, & Zeithaml, 1985) which are (Tangibility, Reliability, Responsiveness, Empathy and Assurance) with the objective of assessing their impact on dependent variables.

The left side of the figure shows the five service quality dimensions while the right side shows customer satisfaction which is affected by service quality. The right side is the ultimate dependant variable which is affected by service quality Dimensions.

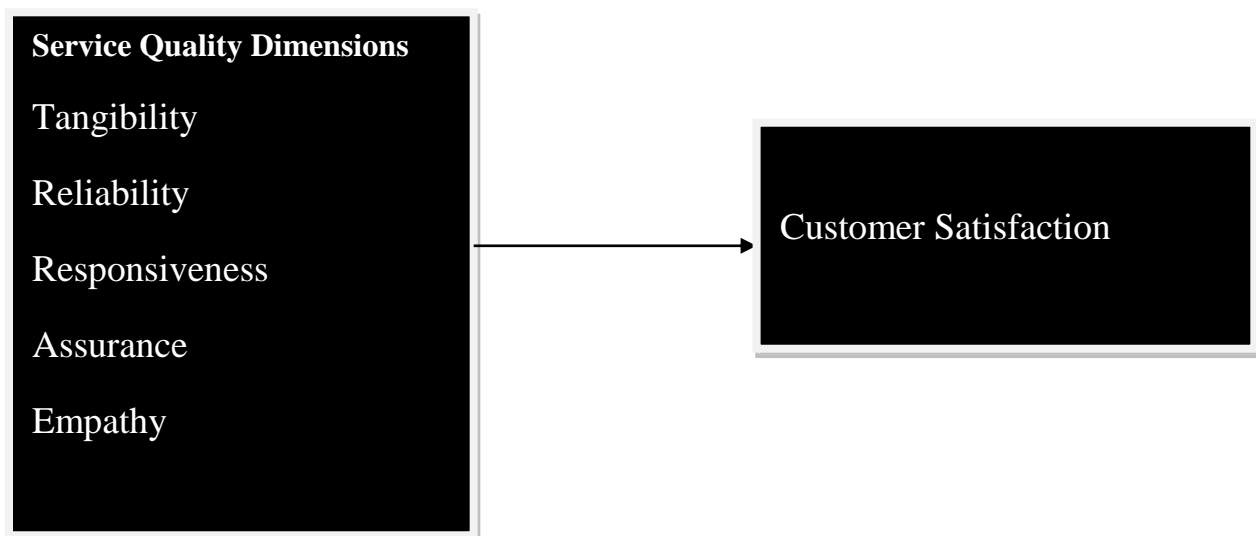


Fig 2.1 conceptual Framework (Source: Parasuaman & Zeithmal, 1988)

2.8 Empirical Framework

Growth of Electronic banking in a country depends on many factors, such as success of internet access, new online banking features, household growth of internet usage, legal and regulatory framework. E-banking can offer speedier, quicker and dependable services to the customers for which they may be relatively satisfied than that of manual system of banking. E-banking system not only generates latest viable return, it can get its better dealings with customers. The rationale of this research is to recognize the impact of variables of e-banking on customer pleasure in Bangladesh. (c.rajendran, 1995) argued that a transitional period in the banking sector of

Bangladesh has been passing through since shifting from the traditional banking system to the online banking system. These comments indicate that gradually electronic banking is gaining its importance in Bangladesh. Customers' liking is necessary for the banking sector to elevate profitability, business expansion and accomplishment. Now a day's banking sector is modernizing and expanding its hand in different financial events every day. At the same time the banking process is becoming faster and easier. In order to survive in the competitive field of the banking sector commercial banks are looking for better service opportunities to provide their customer.

(V.M, 2011) in an investigative study on factors affecting the customer satisfaction with e banking in India evaluated major factors (i.e. service quality, brand perception and perceived value) affecting customers' satisfaction in e-banking service settings. His study also evaluated influence of service quality on brand perception, perceived value and satisfaction in ebanking. The results of his study pointed to the importance of perceived value, brand perception; cost effectiveness, easy to use, convenience, problem handling, security/assurance and responsiveness in customer's satisfaction with e-banking.

(Neeli Prameela, 2012) in another investigative attempt assessed the influence of electronic banking on commitment, trust and attraction of clients in using the Internet Banking of EN (EghtesadeNovin) Banking Industries and found the degree that e-banking affects commitment, trust and attraction of using e-banking in banking industry. The data of her study were analyzed using structural equation modeling and LISREL software and the results showed that e-banking services have a meaningful relationship with commitment, trust and customer-orientation.

(Ibrahim, 2006) In their investigation of electronic banking compared Jordanian banking system and American banking system and specified major differences between Jordanian and American bank web application. Their study shows the gap between web usage in developing and developed countries. The findings illustrated that the difference between these two systems lies in the way services are provided in their websites. American banks use their web sites not only to provide classical operations but also financial calculators, investment advice, and bill payments, while Jordanian banks have exhibited weaknesses in this regard.

In the study conducted on e-banking and customer satisfaction in Bangladesh, (Nupur, 2010) found that five service quality dimensions namely reliability, responsiveness, assurance, empathy, and tangibles are the core service quality dimensions for customer satisfaction in e-banking and reliability, responsiveness and assurance have more contribution to satisfy the customers of e-banking in Bangladesh.

The influence of the banking industry employees' customer-orientation was investigated and He mentioned the performance of service organization staff as an influential factor in the service provided for customers of service organizations.

(Olanipekun, 2013) in another study investigated the realization of electronic banking in improving Banks' customer satisfaction in Iran Melli Bank. Their findings show that Melli bank's electronic services which are provided via various ways such as ATM, sale terminals, telephone banking, Internet and mobile, are among the customer needs and this means that the relationship between their development and customer satisfaction degree is a direct-linear relationship.

(McDougall, 1996) studied customer satisfaction with the quality of banks' ATM services. They found that the customer satisfaction is on an average level. Despite the lack of high customer satisfaction, they would prefer to use the ATM rather than referring to bank staff. Final, the multiple regression analysis showed that safety of the devices and providence of enough money has the largest share in predicting customer satisfaction.

(Karen, 2002) in another attempt compared customer satisfaction in the community college and department of employment security operated WIN Job centers in Mississippi. Results showed that those customers who were using the WIN Centers for the first time were more satisfied with the overall services of community college centers; however, customers who were using the job center for 2-5 times were more satisfied with overall services from the Mississippi Department of Employment Security job centers. Finally, the data also displayed that the customers who had a higher level of education (i.e. 2 or more years of college) were more satisfied with the WIN Job Centers overall than those with a high school diploma or less.

Washburn (2009) in a survey studies customer satisfaction perceptions of dislocated workers served by WIN Job centers in the Mississippi. Four WIN job centers participated in the study.

Each of the four WIN job centers rated in the excellent to good rating in satisfaction for staff, facilities, services, self-service facilities and overall satisfaction. Of the five null hypotheses, three were rejected due to there being a statistically significant difference in at least one of the centers with regards to facilities, staff and services.

Electronic banking as assessed by a number of Malaysia Multi-Media university lecturers introduced developments in information technology and telecommunications as the major factor which have made an electronic revolution in the Malaysian banking sector. This change in turn has resulted in new delivery channels for banking products and services such as the automated teller machines (ATM's), telebanking and PC-banking. These changes were all made for customer satisfaction. Among the services introduced, ATM has been the most used and telebanking has the lowest application rate. Based on this study, electronic banking has not yet been settled in Malaysia but it seems that the government is looking for conditions for its settlement (Garvin, 1988).

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

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

The American Psychological Association (APA) referencing style is used to give credit for the resources.

3.1 Research Design

The study uses a descriptive survey type of research design because this type of research is commonly conducted to collect detail description of existing phenomena with the intent of employing data to justify current conditions and whenever possible to draw valid general conclusions from the facts discovered.

3.1.1 Population

The population about which analysis was made was the total customers of the west Addis district of commercial bank of Ethiopia. The target populations from which the sample respondents were selected are the total number of saving account customers of the six conveniently selected branches (Habtegiorgis, Geja sefer, Teklehaymanot, pawlos, sumaletera and Anwar mesgid branches).

3.1.2 Unit of Analysis

The unit of analysis for this study was the saving account customers of selected branches of west Addis district.

3.2 Sampling Techniques and Sample size

Out of the 74 branches under the West Addis district of the CBE; taking the relative size, year of operation of the branches, cost and availability of time for the study in to consideration, for this study six branches were be selected namely Habtegiorgis, Geja sefer, Teklehaymanot, pawlos,

sumaletera and Anwar mesgid branches by convenience sampling technique and believed to provide a representative sample.

Based on the recommendation of (Eihgie, 2006); to make a more specific study, from all customers of the bank saving account customers were purposely selected. As they are believed to be the regular customers and can better sense e banking service of the bank. Hence, the target population in this study was e banking users among saving account customers who are receiving these services from commercial Bank of Ethiopia.

In order to make generalizations with confidence about the construct under investigation, the appropriate sample size has to be considered. The plan was to select 190 respondents and the basis for choosing this number was in accordance with (Dillman, 2000) that, a sample size of 100 and above is sufficient to present good concise research findings when the population contains a large number of units. The questionnaire was distributed to all six branches respondents equally.

3.3 Data source and collection procedures

Quantitative and qualitative data were gathered from both primary and secondary data sources. While the study was basically dependent on primary sources of data from e banking users of saving account customers, it also used secondary sources of data to fill gap.

The primary data was collected from customers through questionnaires. Primary data are described as those items that are original to the problem under study. This undertaking access and generate primary data from respondents sampled for the study. Primary data are necessary in order to get relevant, original and reliable first hand information about the problem under study. Questionnaires are the major tool of capturing the primary data because of its advantages over the other methods and its efficiency or ability to capture more information from the source (Kothari, 1992).

While the secondary data were gathered from the available literatures, journals, reports and documents. These are accounts offered by the second part, those who did not actually see the object or event but obtained information and provided descriptions of what they learned (Mason & Bramble, 1997). They are usually seen as text that is produced much later than the events being studied, offering an interpretation and conversion of the primary data into an account that may be consulted by others (Mertens, 1998). Secondary data's are like reports journals and written papers are also important in order to get information's that are not possible in primary data's.

3.4 Method of data analysis

The collected data was analyzed by using descriptive statistics. In this study descriptive analysis is chosen because of its simplicity and clarity to draw inferences. Averages, percentages, diagrams and tables were used.

Statistical package for social science (SPSS) was used in data analysis to compute for statistical tables. The collected data are analyzed by using descriptive statistics. In this study descriptive analysis was chosen to assess the Effect of E-Banking service quality on customer satisfaction using percentages, averages and tables. Correlation and ANOVA tests were also used to test the data.

ANOVA (Analysis of Variances):

ANOVA means analysis of variances. The one-way ANOVA procedure produces a one-way analysis of variance for quantitative dependent variable by a single factor independent variable. ANOVA test compares the means for the different variable. In addition to determining that differences exist among the means, one way ANOVA can also be used to calculate which means differ. The cut of point which was considered for being significant was 5%. This determined the importance of each variable over the other basing on the model developed. The one way analysis of variance was used to determine the effects of service quality dimensions (Reliability, Responsiveness, Assurance, Empathy and Tangibility) have on customers.

Correlation Analysis:

The correlation analysis refers to the techniques used in measuring the closeness of the relationship between the variables. Correlation analysis attempts to determine the degree of relationship between variables. One very convenient and useful way of interpreting the value of coefficient of correlation between two variables is to use the square of coefficient of correlation, which is called coefficient of determination.

Binary Logit Model

Multiple Linear regressions cannot be used for the data analysis when the dependent variable is qualitative, however Logit model is the most appropriate and efficient model for analyzing the data when dependent variable is dichotomous dummy variable where the explanatory or independent variables can be either continuous or categorical variables. The model typically used to predicate whether or not some events will occur and hence the dependent variable take only two values, 1 and 0. Due the nature of the dependent variable, in this study, binary logit model was used to analyze data and the dependent variable will take dummy 1, otherwise 0, in the model and predicate the likelihood that increase in the customer satisfaction.

Logit models estimate the probability that dependent variable to be 1 ($Y=1$). This is the probability that some event happens. Hence, mathematically, the logit model as presented (Stock & Watson, 2007),

$$\Pr(Y=1 \mid X_1+X_2+\dots+X_k = 1 \mid X_1+X_2+\dots X_k) = F(\beta_0+\beta_1X_1+\beta_2X_2+\dots+\beta_kX_k)$$
$$F(\beta_0+\beta_1X_1+\beta_2X_2+\dots+\beta_kX_k)$$

Where,

$\Pr(Y=1=1)$, probability that dependent variable is 1 or increase in customer satisfaction.

$X_1+X_2+\dots +X_k$ = independent variable

β_0 = constant and,

$(\beta_1+\beta_2+\dots +\beta_k)$ = coefficient estimate that means if increase X by one unit, the log of the odds ratio will change by $\beta\beta$ units or the probability that $Y=1$ increases.

Software: it is complicated and time consuming to compute and analyze the data by Descriptive and inferential analysis through manually due to large sample size. However, To this end, software package, Statistical Package for Social Sciences (SPSS) version 20, which has capabilities and flexibilities of analyzing a huge data within a seconds and generating simple and sophisticated statistical results was employed .

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1. Introduction

This chapter presents the results of the data analysis according to the research methodology discussed in chapter three. The general background of the characteristics of the respondents and a detailed discussion regarding the four specific objectives of the study are also presented. Logistic regression analysis and analysis of variance test are used to provide a valid result. Results of logistic regressions, analysis of variance tests are presented and hypotheses are tested. The questionnaires are distributed to the customers of six branches of commercial bank of Ethiopia which are conveniently selected from west Addis district (Habtegiorgis, Geja sefer, Teklehaymanot, Pawlos, Sumaletera and Anwar mesgid branches). Accordingly the data collected from the questionnaire is analyzed as follows.

4.2 General Characteristics of Respondents

Part one of the survey questionnaire was designed to identify bank customer's demographic characteristics and banking service experience. All respondents participated in this study were from saving account customers of the commercial Bank of Ethiopia, Habtegiorgis, Geja sefer, Teklehaymanot, pawlos, sumaletera and Anwar mesgid Branches. Results of the demographic variables and bank service experiences of the respondents are presented.

Sex of the Respondents

Table 4.1 Sex of the Respondents

Sex	Frequency	Percentage (%)
Male	116	61.1%
Female	74	38.9%
Total	190	100%

Source: Own Survey 2015

Table 4.1 above depicts respondents' sex in this study. It indicates that respondents almost split between males (61.1%) and females (38.9%), suggesting both sexes represented in the study depicts that majority of respondents who were visiting the bank were males.

Age of the Respondents

Table 4.2 Ages of the respondents

Age Group	Frequency	Percentage (%)
Less than 20 Years		
20 to 30 Years	74	38.9
31 to 40 Years	85	44.7
41 to 50 Years	18	9.5
51 to 60 Years	13	6.8
Above 60 Years		
Total	190	100

Source: Own Survey 2015

Table 4.2 above indicates, the majority of the respondents (83.6%) were within the age range of 20-30 and 31-40, each these group comprises (38.9%) and (44.7%) respectively. (9.5%) of the respondents were within the age group of 41 to 50 years, 6.8% of the respondents were within the age group of 51-60 years. In this study saving account customers above the age of 60 and less than 20 years were not represented.

Educational Status of the Respondents

Table 4.3 Educational Status of the respondents

Level of Education	Frequency	Percentage
Below grade 12	8	4.2
12 th grade complete	37	19.5
College Diploma	47	24.7
First Degree	65	34.2

Level of Education	Frequency	Percentage
Second Degree (Masters)	33	17.4
Total	190	100

Source: Own Survey 2015

Table 4.3 above depicts that the highest Percentage, (34.2%) of respondents were first degree holders, 4.2% of Respondents were below grade 12 and those who were college diploma holders took 24.7% of Percentage in this study. 17.4% of the respondents in this study were Masters holders and no respondent found possessing a (Ph.D) third Degree, as a result in this study saving account customers who hold a Ph.D were not represented.

Occupation of the Respondents

Table 4.4 Occupation of the respondents

Occupation	Frequency	Percentage
Government organization	68	35.8
Private organization	33	17.4
Self employed	73	38.4
Not Employed	16	8.4
Total	100	100

Source: Own Survey 2015

As depicted in Table 4.4 the majority of respondents (38.4%) in this study were self employed, (35.8%) of the respondents were employed in Government organizations, (17.4%) of the respondents were Private organization employee, (8.4%) of the respondents were unemployed.

Respondents average Bank visit per month before introduction of E-banking

Table 4.5 Respondents average re patronage per month

Bank visit per month	Frequency	Percentage (%)
Rarely	50	26.3
Very Frequently	57	30
Frequently	83	43.7
Total	190	100

Source: Own Survey 2015

Table 4.5 indicates, the majority of the respondents (43.7%) on average uses the bank service frequently, (30%) of the respondents use the bank service very frequently per month on average, (26.3%) of the respondents use the bank service rarely per month before introduction of e-banking.

Respondents' Banking experience with the bank

Table 4.6 Respondents' Banking experience with the bank

Length of Banking with the bank	Frequency	Percentage (%)
Less than 12 months	10	5.3
Between 1 and 3 years	48	25.3
Between 3 and 5 years	43	22.6
Between 5 and 7 years	48	25.3
Between 7 and 10 years	23	12.1
More than 10 years	18	9.5
Total	190	100

Source: Own Survey 2015

Table 4.6 depicts the length of time since each respondents has opened his/her saving account. (22.6%) of the respondents has opened their saving account with in the past 3 to 5 years, (25.3%) of the respondents opened their saving account with in the part 1-3 years and 5 to 7 years both, (12.1%) of the respondents opened their account with in the past 7-10 years, and only (9.5%) of the respondents found having a banking experience of more 10 years with the bank. (5.3%) of the respondents has less than one year banking experience with the bank.

Frequency of Banking Before introduction of E-Banking

Table 4.7 Respondents' frequency of banking before introduction of e-banking

	Frequency	Percentage (%)
Rarely	50	26.3
Frequently	83	43.7
Very frequently	57	30
Total	190	100

Source: Own Survey 2015

Before introduction of E-banking 43.7% of respondents visit the banking frequently. 30% of the respondents visit branches very frequently and 26.3% visits rarely.

Frequency of Banking with introduction of E-Banking

Table 4.8 Respondents frequency of banking with introduction of E-banking

	Frequency	Percentage (%)
Never	75	42.1
Rarely	58	30.5
Frequently	15	15.3
Very frequently	42	12.1
Total	190	100

Source: Own Survey 2015

One of the implications of electronic banking is that it should reduce the need to visit bank branches. In fact, the electronic banking delivery channels are often considered as potential substitutes for brick and mortar bank branches. However, contrary to expectations, the survey results indicated that 42.1% of the respondents may never visit their bank branch and 30% of respondents rarely visit their bank branch in month. This would indicate that some consumers of banking services in Ethiopian commercial bank still find it useful to visit their bank branches regularly every month to perform some banking transactions. However, some of these customers

indicated that they sometimes used automated teller system for other transactions such as cash withdrawals and funds transfer.

Problems/ Challenges pertain E-Banking

Table 4.9 Problems/ Challenges pertain E-Banking

	Frequency	Percentage (%)
Illiteracy	29	15.3
Security	27	14.2
Network	128	67.4
inadequate technology	6	3.2
Total	190	100

Source: Own Survey 2015

From the table above, it is clear that customers are not very keen in going for electronic banking products due to lack Network and security in the system. Only 15.3% of the respondents indicated that customers' attitude toward electronic banking is due to illiteracy and the least indicated problem is 3.2% due to inadequate technology.

As it is indicated on the questioners collected; high rate of illiteracy and low level of telecom infrastructure hinders the accessibility of electronic banking services. For the customers to fully enjoy the benefits of e banking, they should not only know to read and write but also possess basic ICT literacy. Besides low level of the banks awareness creation are identified.

Type of E-Banking service

Table 4.10 Type of E-Banking service

	Frequency	Percentage (%)
ATM	83	43.7
Mobile Banking	52	27.4
ATM & Mobile Banking	55	28.9
Internet Banking	0	0
Total	190	100

Source: Own Survey 2015

Table above indicates, the majority of the respondents (43.7%) on average uses the ATM banking service, (28.9%) of the respondents use both ATM and Mobile banking service, (27.4%) of the respondents use mobile banking service alone and none of respondents are using internet banking.

4.3 Descriptive Analysis of the Dependent and Independent Variables

A descriptive statistics has conducted for the dependent variable (Customer Satisfaction) and independent variables (Reliability, Responsiveness, Assurance, Empathy and Tangibility). It includes mean, median, maximum, minimum, standard deviation and others statistics value. The result of the descriptive statistics and its interpretations are presented as follows.

Table-4.11 has shown that the statistical description of service quality where it has found that banks customers perceived Assurance and Responsiveness (with the highest mean scores, i.e. $M = .6789$, $SD = 0.46811$) to be the most dominant service quality dimension and evident to a considerable extent, followed by Reliability ($M = .6737$, $SD = 0.47010$), Tangibility ($M = .6579$, $SD = 0.47567$) which were rated as moderate practices of the bank. Empathy ($M = .6316$, $SD = 0.48365$) with the lowest mean score was perceived on the overall as least dimension of service quality in commercial bank of Ethiopia. The standard deviations were quite high, indicating the dispersion in a widely-spread distribution. This means that the effects of service quality on customer satisfaction are an approximation to a normal distribution. This also indicates that respondents were in favor of customer satisfaction.

Table 4.11- Descriptive Statistics							
		Customer Satisfaction	Reliability	Responsiveness	Assurance	Empathy	Tangibility
N	Valid	190	190	190	190	190	190
	Missing	0	0	0	0	0	0
Mean		0.7	0.6737	. 6789	. 6789	. 6316	. 6579
Median		1	1	1	1	1	1
Std. Deviation		. 45947	. 47010	. 46811	. 46811	. 48365	. 47567
Minimum		0	0	0	0	0	0
Maximum		1	1	1	1	1	1

Source: Own Survey 2015

4.4 Econometric Analysis and Results

The researcher had used the econometric model of logistic regression for this study. The one way ANOVA test method is also used having dependent variable, five independent variables, the constant term and the error term. For the ANOVA 5 % (0.05) significant level is used to reject or not to reject the null hypothesis.

4.4.1 Correlation between explanatory variables

The table-below shows that the degree of correlation or the relationship among variable. The correlation coefficient between Reliability and customer satisfaction is (.034) approves a positive relationship between them. The correlation coefficient between Responsiveness and customer satisfaction is also positively related (.042). This is because the branch of the bank is willing to support E-banking users. According to the correlation result Assurance and customer satisfaction has also positive related (0.07). This means the customers of the bank feel safe with E-banking transaction. As the result on the table ---shows Empathy and customer satisfaction are positively related (0.024). Employees give personal attention to customer which enhances the customer satisfaction with banking with CBE. The fifth explanatory variable is Tangibility which is also positively related to customer satisfaction having a pearson correlation (0.09).

Table 4.12- Correlation between independent variables

Correlations							
		Customer Satisfaction	Reliability	Responsiveness	Assurance	Empathy	Tangibility
Customer Satisfaction	Pearson Correlation	1	.034	.042	.066	.024	.085
Reliability		.034	1	.844**	-.022	.004	.042
Responsiveness		.042	.844**	1	.058	.012	.051
Assurance		.066	-.022	.058	1	.713**	.764**

Empathy		.024	.004	.012	.713**	1	.806**
Tangibility		.085	.042	.051	.764**	.806**	1
N		190	190	190	190	190	190
**. Correlation is significant at the 0.05 level (2-tailed).							

Source: Own Survey 2015

4.4.2 Analysis of variance

In the above discussion customer satisfaction has positive correlation with Reliability, Assurance, Responsiveness, empathy and tangibility. To see the significant of each independent variable with customer satisfaction test, for the statically significant difference were conducted. These tests include through ANOVA test, for comparing their mean.

A test of hypothesis was also made to check whether statistically significant difference or not. One way ANOVA from the regression equation presented in the research methodology was conducted to show if reliability influence customer satisfaction. Results of the test revealed that Reliability has a positive and significant impact on customer satisfaction. The relationship was statistically significant as ANOVA test indicates of 0.48.

Ho: Reliability dimension of service quality has a significant positive effect on customer satisfaction.

H1: reject, Ho

			Sum of Squares	Df	Mean Square	F	Sig.
Customer Satisfaction * Reliability	Between Groups	(Combined)	.047	1	.047	.221	.639
	Within Groups		39.853	188	.212		
	Total		39.900	189			

Source: Own Survey 2015

The above test result of ANOVA table leads to the acceptance of the null hypothesis (because the Significant value 0.639 is greater than 0.05) indicating that, the effect of Reliability has significant impact on customer satisfaction. Therefore, the hypothesis that reliability does have positive effect on customer satisfaction was not rejected in this study.

Hypothesis test for Responsiveness dimension of service quality with Customer satisfaction

Ho: Responsiveness dimension of service quality has a significant positive effect on customer satisfaction.

H1: reject,

Table 4.14: One way ANOVA test on the effect Responsiveness dimension of service quality on the Customer satisfaction

			Sum of Squares	df	Mean Square	F	Sig.
Customer Satisfaction * Responsiveness	Between Groups	(Combined)	.070	1	.070	.329	.567
	Within Groups		39.830	188	.212		
	Total		39.900	189			

Source: Own Survey 2015

The ANOVA test from the six branches data show the positive and significance relationship between Responsiveness and customer satisfaction as it was proved of 0.567 indicates that the influence of responsiveness is not far away from the Customer satisfaction. Therefore, the above table test result leads to the acceptance of null hypothesis (because the significance value 0.567 > 0.05) which indicates that responsiveness has significant impact on the customer satisfaction. The hypothesis test also used to test whether responsiveness has significant effect on the customer satisfaction.

Hypothesis test for Assurance dimension of service quality with Customer satisfaction

Ho: Assurance dimension of service quality has a significant positive effect on customer satisfaction

H1: reject, Ho

Table 4.15: One way ANOVA test on Assurance dimension of service quality with Customer satisfaction

			Sum of Squares	df	Mean Square	F	Sig.
Customer Satisfaction * Assurance	Between Groups	(Combined)	.176	1	.176	.833	.363
	Within Groups		39.724	188	.211		
	Total		39.900	189			

Source: Own Survey 2015

The empirical findings from the combined data for all branches indicated that the relationship between Assurance dimension of service quality of all branches and customer satisfaction is positive and significant at 5% level of significance as it is shown by one way ANOVA test of 0.363. Therefore, the above table test result leads to the acceptance of null hypothesis (because the significance value $0.363 > 0.05$) which indicates that Assurance dimension of service quality has significant impact on the customer satisfaction. The hypothesis test also used to test whether Assurance dimension of service quality has significant effect on customer satisfaction.

Hypothesis test for Empathy dimension of service quality with Customer satisfaction

Ho: Empathy dimension of service quality has a significant positive effect on customer satisfaction.

H1: reject, Ho

Table 4.16: One way ANOVA test on Empathy dimension of service quality with Customer satisfaction

			Sum of Squares	df	Mean Square	F	Sig.
Customer Satisfaction *	Between Groups	(Combined)	.023	1	.023	.107	.744

Empathy	Within Groups	39.877	188	.212		
	Total	39.900	189			

Source: Own Survey 2015

In carrying out the analysis, the results from all six branches indicated the positive and significant relationship between these two variables. One way ANOVA test suggest the positive and significant relationship between Empathy dimension of service quality and customer satisfaction for bank branches. The above table test result leads to the acceptance of null hypothesis (because the significance value $0.744 > 0.05$) which is indicating that empathy dimension of service quality has significant impact on the customer satisfaction. The hypothesis test also used to test whether empathy dimension of service quality has significant effect on the customer satisfaction.

Hypothesis test for Tangibility dimension of service quality with Customer satisfaction

Ho: Tangibles dimension of service quality has a significant positive effect on customer satisfaction

H1: reject, Ho

Table 4.17: One way ANOVA test on Tangibility dimension of service quality with Customer satisfaction							
			Sum of Squares	df	Mean Square	F	Sig.
Customer Satisfaction * Tangibility	Between Groups	(Combined)	.286	1	.286	1.360	.245
	Within Groups		39.614	188	.211		
	Total		39.900	189			

Source: Own Survey 2015

The empirical findings from the combined data for all branches indicated that the relationship between tangibility dimension of service quality of all branches and customer satisfaction is positive and significant at 5% level of significance as it is shown by one way ANOVA test of 0.245. Therefore, the above table test result leads to the acceptance of null hypothesis (because the significance value $0.245 > 0.05$) which indicates that tangibility dimension of service quality has significant impact on the customer satisfaction. The hypothesis test also used to test whether tangibility dimension of service quality has significant effect on customer satisfaction.

4.4.3 Binary Logistic Regression Analysis

The logistic regression model has become a widely used and accepted method of analysis of binary outcome variables (D.Hosmer, et al., 1997). Logistic regression is useful to predict the presence or absence of a characteristic or outcome based on values of a set of predictor variables. Hence, Logistic regression predicts the probability that the dependent variable event will occur ($Y=1$), given a values on the independent variables. The predicted values of the dependent variable can range from 0 to 1. Thus, logistic regression is used when the dependent variable is binary but can be useful for other dependent variables if they are recoded to binary form. To this study purpose, binary logistic regression is used to analyze and identify the factors that determine customer satisfaction.

Overall fit of the model

The important question in logistic regression is “How do I know if my model fits the data?” There are many approaches to answer this question, but they generally fall into the categories: measures of predictive power (like R-square), goodness of fit tests (like the Pearson chi-square) and Hosmer and Lemeshow Test the various goodness-of-fit measures validate that the model fits the data well.

Omnibus tests of model coefficients

The Omnibus test of model coefficients gives us an overall indication of how well the model performs, with none of the predictors entered in to the model. This is referred to as a ‘goodness of fit’ test. For this highly significant value is desired (the sig. value should be less than 0.05). In

this case the value of sig. is .000 (which really mean $p < 0.05$). Therefore, it can be presumably possible to conclude the model fit the data well.

Pseudo R-square (R^2)

R^2 indicates the strength of the relationship between the dependent variable and the independent variables for the data set in the model, analogy to the R^2 measures in OLS regressions. Hence, higher values indicating greater model fit. In other word, “Pseudo” R^2 squared approximate indicates how much of the variation in your dependent variable is explained by your model. Keep in mind that these are rarely as high as they are in a typical OLS regression. Similarly, in this study, Nagelkerke R square or Pseudo” R^2 squared is calculated and it is, 0.628. This implied that, approximately 63% of variation in the dependent variable is explained by explanatory variables in the model.

Hosmer and Lemeshow Test

The results shown in the table headed Hosmer and Lemeshow Test also supports our model as being worthwhile. This test, which SPSS states is the most reliable test of model fit available in SPSS, is interpreted very differently from the omnibus test discussed above. For the Hosmer-Lemeshow Goodness of Fit Test poor fit is indicated by a significance value less than .05, so to support our model we actually want a value greater than .05.

For the data set in this study Hosmer and Lemeshow Test shows significance measure of 0.230, which implied the model fit the data well.

4.4.3.1 Determinants of customer satisfaction using Logistic Model

Descriptive method of data analysis presents univariate relation between the dependent and independent variable. Hence, in this study, to present the determinants of various predictor variables on dependent variable (Customer satisfaction), it goes beyond descriptive method of data analysis and requires employing econometric analysis. Thus, multivariate econometric analysis helps us to identify the determinants of Customer satisfaction. Therefore, using the Customer satisfaction as a dependent variable where value of 1 assigned if Customer satisfaction is increased by E-banking service quality and 0, otherwise.

Table 4.18: SPSS output of the logit model

Variables in the Equation						
	B	S.E.	Wald	df	Sig.	Exp(B)
Q1	-.515	1.179	.191	1	.662	.598
Q2	1.291	.710	3.305	1	.069*	3.635
Q3	1.107	.465	5.677	1	.017*	3.026
Q4	1.232	.766	2.589	1	.108	3.428
Q5	1.069	1.215	.774	1	.379	2.913
Q6	-1.219	.684	3.174	1	.075*	.296
Q7	2.511	.666	14.205	1	.000*	1.081
Q8	2.718	.834	10.629	1	.001*	1.066
Q9	1.050	.897	1.371	1	.242	2.858
Step 1 ^a Q10	1.151	.645	3.189	1	.074*	1.316
Q11	.257	.605	.180	1	.671	1.293
Q12	-.417	1.027	.165	1	.685	.659
Q13	-.897	.659	1.853	1	.173	.408
Q14	-.205	1.047	.038	1	.845	.815
Q15	3.709	.843	19.360	1	.000*	1.025
Q16	-.652	.585	1.245	1	.264	.521
Q17	1.190	.649	3.364	1	.067*	3.285
Q19	.878	.608	2.085	1	.149	2.406
Constant	5.999	1.785	11.300	1	.001	403.152

a. Variable(s) entered on step 1: Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10, Q11, Q12, Q13, Q14, Q15, Q16, Q17, Q19.

Note: *, indicate statistically significant at 10% level of significance

Source: Own Survey 2015

Table 2 above indicates regresses the binary response variable, the probability that customer satisfaction being increase (Y=1). It is also evident that some of the variables are statistically significant at 10% or lower level. From the out model generated using SPSS, Scan down the column labelled Sig. looking for values less than 0.1. These are the variables that contribute significantly to the predictive ability of the model. In this case, eight significant variables are identified (Q2 p=.069, Q3 p=.017, Q6 p=.075, Q7 p=.000, Q8 p=.001, Q10 p=.074, Q15 p=.000 and Q17 p=.067). predictor variables such as Speedy and Quick service, adequate Amount of cash limit to be withdrawn in a day, Employees readiness to response quickly, It is easy to regain the captured card, Easy to regain the expired and lost cards, The Machine uses simple and clear

language, Appearance of the ATM facility is Attractive, statement printing is available for E-Banking users are significant at determining the likelihood or the probability of Customer satisfaction increase.

4.4.3.2 Interpretation of Variables from the Model Output

(Binary Logistic-Regression)

Speedy and Quick service: The speedy and quick service of e-banking facilities and its effect on customer satisfaction is generated using SPSS .Contrary with existing literature, coefficient of speedy and quick service in this study found to be positive with dependent variable. Hence, speedy and quick service of e-banking facilities is positively related with the dependent variable (probability of increase in customer satisfaction) and is statistically significant at less than 10% level of significance. Similarly, it can be interpreted as; speedy and quick service of e-banking facilities has high likely affects the increase in customer satisfaction level. The marginal effect shows, other things remaining constant, probability of customer satisfaction increase by 3.64 as increase in one more unite of speedy and quick service of e-banking facilities.

Adequacy of Amount of cash limit to be withdrawn in a day: The estimated coefficient of adequate Amount of cash limit to be withdrawn in a day was positive and significant at the 10% level of significance, implying that the probability of using adequate Amount of cash limit to be withdrawn in a day with increase in customer satisfaction. The marginal effect result shows that, holding the other factors constant, the probability of adopting adequate amount of cash limit to be withdrawn in a day increases by factor of 3.026 customer satisfaction.

Employees are ready to response quickly:

The above Table shows that the estimated coefficient of Employees is ready to response quickly was negative and significant at 10 percent level of significance, implying that the probability of increase in customer satisfaction less likely affected by increase in employees readiness to respond quickly. The marginal effect result shows that 0.296, holding the other factors constant value less than 1. This indicates that a one more employee's readiness to respond quickly, the less likely the customers report they are satisfied with e-banking service delivery.

It is easy to regain the captured card: The estimated coefficient of easiness to regain captured card was positive and significant at the 10 percent level of significance, implying that the probability of increase in customer satisfaction with increase in easiness to regain the captured card. The marginal effect result shows that, holding the other factors constant, the probability of customer satisfaction increases by 1.081 when it is easy to regain the captured card increase by one more unit.

Easy to regain the expired and lost cards: In this study the coefficient of the variable, Easy to regain the expired and lost cards has positive relation with dependent variable (increase in customer satisfaction) and statistically significant at less than 10% level of significance. This implied that, easiness of regaining expired and lost card has more likely effect increasing customer satisfaction level.

The odd-ratio or marginal effect is 1.066. This means that for unit increase in easiness of regaining expired and lost card, the odds in favor increases customer satisfaction by 1.066.

The Machine uses simple and clear language: The estimated coefficient of The Machine uses simple and clear language was positive and significant at the 10 percent level of significance, implying that the probability of customer satisfaction increases where The Machine uses simple and clear language. The marginal effect result shows that, holding the other factors constant, the probability of customer satisfaction increases by 1.316 when the branches are able to use the Machine that uses simple and clear language.

Appearance of the ATM facility is Attractive

As expected appearance of the ATM facility attractiveness has positive relation with increase in customer satisfaction ($y=1$) at less than 10%. This can presumably presented as; the Appearance of the ATM facility attractiveness has more likely responsible for increase in customer satisfaction. Marginal effect or Odds-ratio shows, the probability of customer satisfaction ($y=1$) increase by 1.025 with introduction of each additional unit of appearance of the ATM facility attractiveness by the bank, holding all other explanatory variables constant.

Statement printing is available for E- Banking users

The banks perhaps introduce statement printing schemes to its potential customers. Seemingly statement printing availability introduced by the perspective bank may have potential effect on its customer satisfaction. Hence, in this study it is evidenced that, the availability of statement

printing by e-banking has positive effect on the customer satisfaction ($y=1$) and statistically significant at less than 10% level. The odds-ratio or marginal effect of the loan service is 3.285. This could implied that for unit increase in availability of statement print odds in favor of increasing customer satisfaction is increased by 3.285, keeping all other predictor variable constant.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

The main aim of this study was to examine the effects of Electronic banking service quality dimensions on customer's satisfaction in six selected branches of west Addis district (Habtegiorgis, Geja sefer, Teklehaymanot, pawlos, sumaletera and Anwar mesgid) of the CBE.

In order to achieve a better understanding of the possible effects of service quality dimensions on customer satisfaction the following four research objectives were developed.

- To describe the age, gender, and educational status of e-banking users
- To see if e-banking service has reduced the visits of branches for customers
- To list the major challenges and opportunities of e-banking from customers point of view.
- To determine the effects of service quality dimensions (Reliability, Responsiveness, Assurance, Empathy and Tangibility) have on customers' satisfaction.

Information was gathered from six branches through a questionnaire. Hundred and ninety complete questionnaires were used. A perception only perspective was utilized to gather the data. A total, 29 items used in the study.

5.1 Conclusion

The finding of the study indicates that customers of bank were satisfied by electronic banking service quality and the five service quality dimensions (tangibility, reliability, responsiveness, assurance and empathy). The finding of the study also indicates that, customers were most satisfied with the assurance dimensions of service quality. However, customers were less satisfied empathy dimensions of service quality. The correlation result shows that all service quality dimensions (tangibility, assurance, empathy, responsiveness and reliability) are positively and significantly related with customer satisfaction. All service quality dimensions tangibility, responsiveness, assurance and empathy have positive and significant effect on customer satisfaction. The findings of this study also indicated that assurance is the most important factor to have a positive and significant impact on customer satisfaction. In addition to this,

responsiveness and tangibility the three service quality dimensions significantly explain the variations in customer satisfaction. The study also indicates that, customers are satisfied by e-banking service quality of the bank as the result from logistic regression indicates predictor variables such as Speedy and Quick service, adequate Amount of cash limit to be withdrawn in a day, Employees readiness to response quickly, easiness to regain the captured card, Easiness to regain the expired and lost cards, Machines simple and clear language, Appearance and Attractiveness of the ATM facility, availability of statement printing for E- Banking users are significant at determining the likelihood or the probability of Customer satisfaction increase. From the finding of this study the researcher concludes that electronic banking has positive and significant relationship with customer satisfaction. And also electronic banking has positive and significant effect on customer satisfaction.

5.2 Recommendations

This study examined the effects of electronic banking service quality on customer satisfaction in Habtegiorgis, Geja sefer, Teklehaymanot, pawlos, sumaletera and Anwar mesgid branches of the CBE. Based on the conclusions reached, the following recommendations forwarded focusing on issues which may have managerial implications.

As suggested by literature, results of this study also revealed that service quality dimensions identified as a strong predictor of customer satisfaction in the six branches. Hence, managerial efforts better aim at boosting customer satisfaction. In doing so, appropriate consideration better be given to the service quality dimensions identified having a significant effect on customer satisfaction. In order to boost satisfaction, more effort should be exerted towards the tangibles, reliability, assurance and empathy dimensions.

The in tangibility nature of banking service makes the service quality highly performance based. Therefore, to make the service appealing to customers, all branches better focus on improving their service package. The service package should also be appropriately communicated to target customers, taking in to consideration the interests of frequent service users and aged customer groups. Furthermore use of up-to-date equipment and improving the office layout would also help.

Empathy dimension was also considered as one of the most important factors influencing customer satisfaction. However, the customers of the banks were less satisfied in terms of the empathy dimensions. One way of addressing this could be by treating customer with great respect, giving individual attention to customers, serving customers based on their specific needs and treating customers in a friendly manner. This is to say, the bank management should focus on this factor to maximize customer satisfaction.

The bank management should train their employees on relationship marketing skills, focusing to improve their skills and knowledge on how to understand bank customers, deal with care, and provide accurate and prompt service.

5.3 Recommendations for future research

This study was focused on identifying the effect of service quality on customer satisfaction of saving account customers at Habtegiorgis, Geja sefer, Teklehaymanot, pawlos, sumaletera and Anwar mesgid branches of the CBE.

It would also be interesting to conduct a focused comparative study between saving, current and electronic banking customers (ATM and debit card) users. Using a perception only perspective an interesting study can also be conducted by incorporating profitability in relation to service quality, customer satisfaction and service loyalty.

Bibliography

- Abdi, H. a. (2006). An exploratory research on adoption of e-banking and e-readiness among customers and commercial banks in Pakistan . 1-35.
- Abreham. (2012). Challenges and Opportunities of Adapting electronic banking in Ethiopia.
- Alabar, T. (2010). Electronic banking service and customer satisfaction in Nigerian Banking industries. *International journal of business and investment*, 1(1).
- Andaleeb, S. S., & Conway, C. (2006). Customer satisfaction in the restaurant industry: an examination of the transaction-specific model.
- Anisoara Niculina APETRI, L. P. (2008). THE IMPORTANCE OF MODERN E-BANKS FOR DEVELOPMENT OF NEW ECONOMY. *The Annals of The "Ștefan cel Mare" University Suceava. Fascicle of The Faculty of Economics and Public Administration*, 8.
- Babikas, E., Bienstock, C. C., & Van Scotter, J. R. (2004). Linking perceived quality and customer satisfaction to store traffic and revenue growth. *Decision Sciences*,.
- Bakr, A., Mustafa, M., & al-Din, M. M. (2005). the art of customer service and selling skills. Amman, Jordan:. *University House*.
- Bolton, R., & Saxena-Iyer, S. (2009). nteractive Services: A Framework, Synthesis and Research Directions. *Jornal of intereactive marketing*.
- Bordens, K. S., & Abbott, B. B. (2011). *RESEARCH DESIGN AND METHODS: A PROCESS APPROACH* (8 ed.). New York: McGraw-Hill.
- Burns, R. C. (2003). Alternate measurement approaches to recreational customer satisfaction: Satisfaction-only versus gaps scores. *Leisure* .
- c.rajendran, G. (1995). customer perceptions of service quality in the banking sector of developing economy a critical analysis . *international journal of bank marketing* .
- Camelia Catalina MIHALCIUC, L. P. (2008). THE IMPORTANCE OF MODERN E-BANKS FOR DEVELOPMENT OF NEW ECONOMY. *The Annals of The "Ștefan cel Mare" University Suceava. Fascicle of The Faculty of Economics and Public Administration*, 8.
- Chang, J. C. (2009). Taiwanese tourists' perceptions of service quality on outbound guided package tours: A qualitative examination of the SERVQUAL dimensions. *Journal of Vacation Marketing*.
- Cronin, J. J., & Taylor, A. S. (1992). Measuring Service Quality: Areexamination and extension. *Jornal of Marketing*,, 55-56.

- Daniel, E. (n.d.). Provision of electronic banking in the UK and Republic of Ireland. *International Journal of Bank Marketing*. 17, 72-82.
- Dr. Geeta Sharma, M. S. (March 2014). Internet Banking Service Quality and Its Impact On Customer. *Business and Management Invention*, 3(3).
- Garvin, D. A. (1988). *Managing Quality: The Strategic and Competitive Edge*. In D. A. Garvin. Harvard: Free Press.
- Gilmore, A. (2003). *Service Marketing and and Managment*. London: SAGE publications.
- Grooroos. (2007). service perspective on business relationship.
- Grooroos, C. (2007). service quality model and its marketing implications. *Emeraled backfiles, european journal of marketing*.
- Holjevac, I. A., Marković, S., & Raspor, S. (2010). Customer Satisfaction Measurement in hotel industry:Content analysis study.
- <http://www.nbe.gov.et/History/history.html>. (2010). *The History of Banking and other Financial Institutions in Ethiopia* . Retrieved from. NBE.
- Huang, M. C. (1998). An Empirical Study on the Model of Relationship Value-Loyalty for the Banking Industry. Master Disertation. *National YunLin University of Science & Technology*.
- Ibrahim, J. a. (2006). efficiency of service delivery chanel in the bankng industry an importance performance gap analysis in the philipine setting.
- Jain, S. K., & Gupta, G. (2004). Measuring Service Quality: SERVQUAL Vs. SERVPERF scales.
- Kandampully, J., & –Hui-Hu, H. (2007). Do hoteliers need to manage image to retain loyal customers ? *international Journal of contemporary Hospitality Management*.
- Karen Furst, W. W. (2002). *Internet Banking: Development and prospects*. Harvard University.
- Kotler, P., & Armstrong, G. (2011). *Principle of marketing*. Prentice Hall.
- Kotler, P., & Keller, K. (2012). *Marketing Managment*.
- Kumbhar, V. M. (2011). Factors affecting the customer satisfaction in e-banking: some evidences from Indian banks. *journal of basic scientific research*, 3(4), 1-14.
- Laroche, M., Ueltschy, L. C., Shuzo, A., & Cleveland, Y. (2004). Service quality perceptions and customer satisfaction: Evaluating the role of culture. *Journal of International Marketing*.

- Luke, G. J. (2007). An assessment of the service quality expectations and perceptions of the patients of Awali Hospital in the Kingdom of Bahrain .
- McDougall, L. &. (1996). customer satisfaction with services putting perceived value in to the equation. *14(5)*, 392-410.
- Millán, À., & Esteban, Á. (2004). Development of a multiple-item scale for measuring customer satisfaction in travel agencies services. *Tourism Management*.
- Mirabi, V. R. (2008). Investigating the degree of customer satisfaction of lectronic banking services using the revised Cose model. *.Journal of commerce surveys, 31*.
- Mueller, R. D., Palmer, A., Mack, R., & McMullan, R. (2003). Service in the restaurant industry: an American and Irish comparison of service failures and recovery strategies. *International Journal of Hospitality Management*.
- Neeli Prameela, D. B. (2012). Loyalty in E-banking. *international journal of trends in economics managmnet and technology, 1(6)*.
- Nukpezah, D., & Nyumuyo, C. (2009). What drives customers Loyalty and Profitability? Analysis of Prespectives from retail Customers in Ghana's Banking Industry.
- Nupur, J. M. (2010). *.E-Banking and Customers' Satisfaction in Bangladesh: An Analysis. International Review of*.
- Olanipekun, W. D. (April 2013). Role of Electronic Banking in Enhancing Human Resource Performance and Customer Satisfaction: Evidence from Guaranty Trust Bank PLC, Nigeria. *International Journal of Business and Behavioral Sciences, Vol. 3, (No 4)*.
- Oliver, R. (1997). *Satisfaction: A Behavioral prespective On the Consumer*. New york.
- Parasuaman, A., & Zeithmal, V. (1988). Multiple-items scale for measuring customer perceptions of service quality. *Jornal of retailing, 64(1)*.
- Parasuaman, A., & Zeithmal, V. (1988). A multiple item scale for measuring a customer perception of service quality . *Journal of Retailing*.
- Parasuraman, A., Berry, L., & Zeithaml, V. (1985). A conceptual Model Of service Quality and it implication for Future research. *journal of marketing*.
- Parasuraman, Z. &. (1991). *Delivering Quality Service - Balancing Customer perceptions and Expectations*. New York: The Free Press.
- Quinn, B., & Gagnon, C. E. (1986). *will services Follow Manufacturing in to Decline?*
- Ragavan, N., & Mageh, R. (2013). A Study on Service Quality Perspectives and Customer Satisfaction in New Private Sector Banks. *Journal of Business and Management*.

- Rahman, M. S., Khan, A. H., & Haque, M. (2012). A Conceptual Study on the Relationship between Service Quality towards Customer satisfaction. *Asian Social Science*.
- Samea, S. &. (2010). an integrated approach for service quality and effectiveness. *16*(3).
- Siddiqi, K. O. (2011). *Interrelations between service quality Attributes customer satisfactions and customer loyalty in the retail banking sector. International jornal of business an managment .*
- Simon Gyasi Nimako, N. K. (2013). *Customer Satisfaction With Internet Banking Service Quality In The Ghanaian Banking industry. INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH*
- Sulaiman, C. a. (2005). *effectiveness of electronic banking system .*
- Toyin, A. C., David, A. C., & Stodnick, M. (2008). Drivers of Customer Loyalty in a Retailing Environment,. " *Journal of Service Science*".
- V.M, K. (2011). Factors affecting customer satisfaction in E-banking.
- Wahid Damilola1, B. A. (2013, April). Role of Electronic Banking in Enhancing Human Resource Performance and Customer Satisfaction: Evidence from Guaranty Trust Bank PLC, Nigeria. *International Journal of Business and Behavioral Sciences, 3*.
- Webster, N. (Reprinted 1983). *Webster's new twentieth century Dictionary of the english language Unabridged* (second ed.). New York: Prentice Hall Press.
- Yoo, D., & Park, J. (2007). Perceived Serviced Quality-Analyzing Relationship among employees, customer and financial performance. *International jornal of Quality & Reliability Managment*.
- Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2006). " *Services Marketing: Integrating Customer Focus Across the Firm,*". McGraw-Hill Irwin.

Appendix

Appendix 1 – Questionnaire

St.Mary’sUniversity

School of graduate studies

Department of Business Administration (General)

A survey questionnaire on “The Effects of E-Banking Service Quality on Customer Satisfaction in case of the commercial bank of Ethiopia.

Dear Sir/Madam

This survey is conducted as a partial fulfillment of the award of Master of Business Administration at St. Mary’s University. The general purpose of the study is to assess the effects of E-Banking service quality on customer satisfaction in commercial bank of Ethiopia on selected branches.

I kindly request your participation in this survey by filling up this questionnaire. I would also like to inform you that any of your responses will be maintained confidentially.

Sisay Abebe

Tel. No. 0913690821

Email: Siimbaa12@gmail.com

Thank you very much in advance for your cooperation!

General Instruction

- Do not write your name in any part of the questionnaire
- Your frank response is vital for the success of the study
- Please put a “✓” mark on your choices
- Give a short and precise answers for questions followed by a blank spaces

Part I- General Information

1. Sex Male Female
2. Age group
- Less than 20 years 20 to 30 years 31 to 40 years
- 41 to 50 years 51 to 60 years above 60 years
3. Employment
- Government Organization Private Organization Self employed
- Not employed Student
4. The highest level of education you achieved
- Below grade 12 12th Grade complete Certificate
- College Diploma First Degree Second Degree (Masters Degree)
- Third Degree (PhD)
5. How long is it since you have started using CBE service
- Less than 12 months between 1 and 3 years
- Between 3 to 5 years between 5 to 7 years
- Between 7 to 10 years more than 10 years
6. How long is it since you have started using Electronic banking
- Less than 12 months between 1 and 3 years
- Between 3 to 5 years between 5 to 7 years
- Between 7 to 10 years more than 10 years
7. Before the introduction of e banking products, how frequent in a month do you visit the bank for transaction?
- Rarely Very frequently Frequently

8. With the introduction of e banking, how many times in a month do you now visit the bank for transaction?

Never Twice

Once thrice and more

9. What in your opinion is the main problem of e banking?

Illiteracy Security

Network in adequate technology
If any

_____.

Part II- The following statements relate to your feelings about the banks E-banking service. Please give your score based on service you received at the bank

S.No		E-banking Service quality	No	Yes	Other
			0	1	2
1	Reliability	There is 24/7 E- banking service availability			
2		Speedy and Quick service			
3		Amount of cash limit to be withdrawn in a day is adequate			
4		The network is available most of the time			
5	Responsiveness	This branch of the bank is willing to support E-banking users			
6		Employees are ready to response quickly			
7		It is easy to regain the captured card			
8		Easy to regain the expired and lost cards			
9	Assurance	I feel safe in E-banking transaction with this bank			
10		The Machine uses simple and clear language			
11		The E-banking minimizes the time spent in banking service			
12	Empathy	Employees give personal attention to customer			
13		The bank give individual attention to customer			
14	Tangibles	The branch and the ATM (POs) machine is in a convenient location			
15		Appearance of the ATM facility is Attractive			
16		Employees have professional Experience about e-banking service			
17		statement printing is available for E- Banking users			
18	Customer satisfaction	I am highly satisfied with E-banking service of the bank than traditional service			
19		E-banking service help me in controlling my accounts movement			

THANK YOU VERY MUCH

Note: in the study **Reliability** is represented by Q1

Responsiveness is represented by Q5

Assurance is represented by Q9

Empathy is represented by Q12

Tangibility is represented by Q14

Customer satisfaction is represented by Q18

Appendix 2- Logistic regression results

Case Processing Summary

UnPercentage ed Cases ^a		N	Percent
Selected Cases	Included in Analysis	190	100.0
	Missing Cases	0	.0
	Total	190	100.0
Unselected Cases		0	.0
Total		190	100.0

a. If Percentage is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
No	0
Yes	1

Block 0: Beginning Block

Classification Table^{a,b}

	Observed	Predicted		
		Customer Satisfaction		Percentage Correct
		No	Yes	
Step 0	Customer Satisfaction No	0	57	.0
	Customer Satisfaction Yes	0	133	100.0
Overall Percentage				70.0

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 0 Constant	.847	.158	28.645	1	.000	2.333

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

	Chi-square	Df	Sig.
Step 1 Step	111.263	18	.000
Step 1 Block	111.263	18	.000
Step 1 Model	111.263	18	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	120.865 ^a	.443	.628

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	10.529	8	.230

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Q1	-.515	1.179	.191	1	.662	.598
Q2	1.291	.710	3.305	1	.069	3.635
Q3	1.107	.465	5.677	1	.017	3.026
Q4	1.232	.766	2.589	1	.108	3.428
Q5	1.069	1.215	.774	1	.379	2.913
Q6	-1.219	.684	3.174	1	.075	.296
Q7	2.511	.666	14.205	1	.000	1.081
Q8	2.718	.834	10.629	1	.001	1.066
Q9	1.050	.897	1.371	1	.242	2.858
Step 1 ^a Q10	1.151	.645	3.189	1	.074	1.316
Q11	.257	.605	.180	1	.671	1.293
Q12	-.417	1.027	.165	1	.685	.659
Q13	-.897	.659	1.853	1	.173	.408
Q14	-.205	1.047	.038	1	.845	.815
Q15	3.709	.843	19.360	1	.000	1.025
Q16	-.652	.585	1.245	1	.264	.521
Q17	1.190	.649	3.364	1	.067	3.285
Q19	.878	.608	2.085	1	.149	2.406
Constant	5.999	1.785	11.300	1	.001	403.152

a. Variable(s) entered on step 1: Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10, Q11, Q12, Q13, Q14, Q15, Q16, Q17, Q19.