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The Role of Electronic Banking Service Quality in Enhancing Customer Satisfaction: Evidence from the Commercial Bank of Ethiopia

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Abstract
The main aim of this study was to determine the mediation effect of electronic banking service quality on customer satisfaction of commercial bank of Ethiopia in Yeka district some selected branches. To undertake the study, quantitative and qualitative research approaches were used and structured questionnaires were adopted from preceding research works and self-administered. Out of a sample of 192 target respondents, 184 of them were able to complete the questionnaires. The relationship between the variables was analyzed using explanatory research designs and employed descriptive and inferential statistics. The data gathered in the study further assessed using the Statistical Package for Social Science (SPSS) 26.0 statistical program via numerous statistical methods and test techniques (i.e. frequency distribution, correlation, regression, ANOVA). The results of the study stipulated that the dominant electronic banking service quality dimension in commercial bank of Ethiopia is Reliability followed by Tangibility. Reliability is dominated dimensions of electronic banking service quality means the respondents have digital culture; they perceived the use of electronic banking service quality with an attitude of getting anytime and anywhere. The correlation results show that the relationships between the three variables of the study which are electronic banking service quality, all dimensions of electronic banking service quality, and customer satisfaction were positive and strong. The general implication of the study result depicted that the bank should minimize the problems of network failure, unreliable power supply and providing online banking digital culture of the customer so that commercial bank of Ethiopia should enhance their internal capacity and work with the government bodies (Ethio-Telecom, Ethiopian electric power & NBE) to acquire electronic banking service quality and improving customer satisfaction. Therefore, by adopting a service quality of electronic banking, commercial bank of Ethiopia improve customer satisfaction.
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CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

In an era of business globalization, Information technology has brought an electronic revolution in the banking industry. It is IT that was revolutionizing the overall operations of banking at local, national and international level. Among the IT based banking services, E-banking is one of the modern technology in which banks use it in order to provide better services and solutions to the demanding customers by maintaining the competitive advantage through the degree of customer satisfaction in this dynamic market area. The competition in banking sector become stiff and reshaped due to the introduction of AMT, POS, Internet banking and mobile banking which are the major milestones of electronic banking in Ethiopia (Titu & Rahman, 2013).

Electronic banking is one of the most recent channels of distribution used in the financial services organizations. This method was established in the mid-1990s, there after becoming more important. It has been widely used in developed countries. However, in developing economies, the spread is much limited. As suggested by Classens et al (2002), developing countries in general have an advantage as they can learn from the experience of advanced economies. Today, almost all banks in Ethiopia are adopting electronic banking as a means of enhancing service quality of banking. It also increases customer satisfaction in banking services (Banu, Mohamed & Parayitam, 2019). Online banking refers to the automated delivery of banking products and services directly to customers through electronic communication channels, most notably the Internet. Online banking is also called E-banking or PC banking.

Mayaka (2015), defined Customer‘s satisfaction as the company's ability to fulfill the business, emotional, and psychological needs of its customers. However, customers have different levels of satisfaction as they have different attitudes and experiences as perceived from the company. Customer’s satisfaction is affected by the importance placed by the customers on each of the attitudes of the product/ service. Customer satisfaction

measurement allows an organization to understand the key drivers that create satisfaction or dissatisfaction; and what is really driving their satisfaction during a service experience.

Customer satisfaction is a measure of how products and services supplied by a company meet or surpass customer expectation. Customer satisfaction is also defined as the number of customers, or percentage of total customers, whose reported experience with a firm, its products or its services (ratings) exceeds specified satisfaction goals (Titu & Rahman, 2013). And yet another definition of customer satisfaction is it refers to the extent to which customers are happy with the products and/or services provided by a business. Further definition of customer satisfaction is it is a term generally used to measure a customer's perception of a company's products and/or services. It's not a straight forward science however, as customer satisfaction will vary from person to person, depending on a whole host of variables which may be both psychological and physical. The usual measures of customer satisfaction involve a survey with a set of statements using a Likert Technique or scale (Chan, 2004).

According to Tafa (2013) studied the Impacts of Electronic Banking on Customer Satisfaction in Ethiopian Banking Industry (The Case of Dashen and Wogagen Banks in Gondar City) and he stated that there are few researches that have been done on the impact of E-banking on customer satisfaction in Ethiopia, the result the finding indicated that demographic characteristics have a significant relation with e-banking based customer satisfaction, Yitbarek (2015) stated that service quality dimensions reliability, responsiveness and ease of use have strong influence on online users.

Therefore, it is strongly believed that the main reasons for contradictory findings in previous electronic banking and customer satisfaction studies are dimensions, research methodology, scope, empirical and literature of the research had a varying effect on customer satisfaction. The current status of the study that illustrates the computing framework on the effect of electronic banking service quality on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches.

1.2 Statement of the problem

In this era, banks are growing using technology for providing services through self-service mode by using different electronic payment channels. The services through these channels recommend numerous advantages both to the banks and their customers (Odawa, 2016). The advantages of e-banking services are decreasing in cost of transaction and lessening the burden of load on branches and also for the customers feels easy to accessible as well as convenient , and time saving (Abebe, 2016). The competition in banking sector become stiff and reshaped due to the introduction of digital banking which are the major milestones of online banking in Ethiopia (Odawa, 2016). Likewise banks as a business organization should give intense attention to the reason behind the means of satisfying customers based on the impact of banking technology. E-banking is a way to keep existing customers and attract new ones to the bank. The transaction costs of providing these services are lower than the traditional approach (Beza, 2010).

Electronic banking is an e-payment system that empowers customers of a commercial institution which help to conduct the financial transaction on website which is operated by the institution, such as a retail bank, building society, credit union or virtual bank. Internet banking is also alluding as online banking, virtual banking, e-banking and so on. This new service has added the new extension to the concept of customer convenience and how it positively affects the financial behavior of the people (Siwale, 2022).

A study undertaken by Philipos (2013) entitled with “customer satisfaction and electronic banking service on some selected banks of Ethiopia” listed that presently there are some factors which affect customer satisfaction in electronic banking service in the surveyed banks (commercial banks of Ethiopia, Wegagen bank, and Zemen bank) of Ethiopia. As noted in the result section among the factors which affect customer satisfaction were ATM machine out of cash, no printing recite, cards get blocked, frequent breakdown of ATM service, unreliability of ATM service, lack of sufficient technicians in all bank who solve breakdown of ATM machine, lack of sufficient alternative system which substitute ATM service for the customer when temporary problem happen in the machine, lack of mobile banking service, lack of reliable Telebanking, lack of credit card service, under-development of technological infrastructure, low level of relevant knowledge creation and innovation, interruption of network, limit of fair distribution of E-banking service in all over Ethiopia during based on the survey of this study.

According to the findings of Tafa (2013) the impact of electronic banking on customer satisfaction in Gonder city about 62.19% of the respondents know what e-banking is mean and also 66.42% of respondents underlined on the direct relationship of E-banking and their banking service satisfaction and the study was considered only on ATM which was the only form of e-banking in the area. Yitbarek (2015) conducted a study on impact of e-banking on customer satisfaction in Addis Ababa of selected private and public banks. The researcher used qualitative approach in analyzing the study and it was limited to customers of most researchers repeatedly covered branches of these banks in the scope.

Bultum (2014) also studied factors that affect adoption of e-banking in the Ethiopian banking industry. Still this study was entirely focused on factors that affect adoption of e-banking. Satisfaction of customers towards e-

banking required to be investigated to understand the relevancy of e-banking in the country. Yet, the findings from those studies have been inconsistent. Consequently, experts can't give clear answer as to what electronic banking service quality would be beneficial to, and the conflicting results are difficult to generalize; therefore, further investigation is required.

Therefore the present study was bridged the gap of methodology by using multiple regression analysis, ANOVA & Correlation analysis and also was covered the bank that were not included in other studies like commercial bank of Ethiopia specially Yeka district. More over the researcher was seek to examine if the service quality had any effect on the relationship between electronic banking service and customer satisfaction in the case of commercial bank of Ethiopia some selected branches of Yeka district.

1.3 Research question

This study intended to address the following research questions;

1. What is the effect of reliability of electronic banking service on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches?

2. What is the effect of assurance of electronic banking service on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches?

3. What is the effect of responsiveness of electronic banking service on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches?

4. What is the effect of empathy of electronic banking service on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches?

5. What is the effect of tangibility of electronic banking service on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches?

6. What is the level of customer satisfaction due to electronic banking service quality in the case of commercial bank of Ethiopia Yeka district some selected branches?

1.4. Objectives of the Study

1.4.1. General objective

The major objective of this study was to assess the effect of electronic banking service quality on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches.

1.4.2 Specific objectives

The specific objective of this study was

1. To identify the effect of reliability of electronic banking service on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches

2. To identify the effect of assurance of electronic banking service on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches.

3. To identify the effect of responsiveness of electronic banking service on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches.

4. To identify is the effect of empathy of electronic banking service on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches.

5. To identify is the effect of tangibility of electronic banking service on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches.

6. To investigate the level of customer satisfaction due to electronic banking service quality in the case of commercial bank of Ethiopia Yeka district some selected branches.

1.5. Significance of the study

The findings of this study was had potential value to financial institutions, particularly banks, in understanding the effect of electronic banking service quality on customer satisfaction. In addition, this study is expected to help other researchers who were interested in conducting further studies regarding the issue under investigation by providing useful information. Finally, based on the factors found to be influencing bankers' decisions on the effect of service quality on electronic banking and customer satisfaction, the study may provide recommendations for banks about changes needed to accelerate the practice of the system to deliver service to customers through electronic banking service.

1.6. Scope of the study

The scope of this paper is limited on the effect electronic banking on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches and do not cover any other governmental or

privately owned banking sectors in Ethiopia. The study assesses the effect of electronic banking on customer satisfaction through sample survey. Due to constraints of finance, time, and the researcher's ability, methodologically the study would only be bounded to employees of commercial bank of Ethiopia Yeka district some selected branches.

1.7. Limitations of the Study

As it is generally know every research study had its own limitations; the following are possible limitations which the researcher would likely face while conducting the study. Lacks of adequate research material and few empirical researches have been done in the same area of study and hence intensive review of past studies is limited. Therefore, research findings and inferences was made based on the sampled branches and respondents of CBE in some selected branches in yeka district.

1.8. Organization of the Study

This research paper categorized in to five chapters. The first chapters will the introductory part, which addresses background of the study, statement of the problem, objectives of the study, significance of the study and scope of the study. The second chapter deals with the review of related literature where theoretical and empirical evidences explored from different publications. The third chapter presents the research design and methodology, which will be focused on research design, research approach, and target population, sampling techniques, sample size, sources and instruments of data collection, and finally method of data analysis will be discussed. The fourth chapter will deals about the presentation of results and discussion that is concerned with the summarization and interpretation of the research findings. Finally, in chapter five, summary of findings, conclusions, recommendations, limitations and suggestion for future research will be discussed.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

2 Theoretical Reviews

2.1. Introduction

The aim of this chapter is to review the available literature on the topic of electronic banking collaboration starting from theories related to the electronic banking; concept and definitions of service quality, electronic banking components, customer satisfaction and its indicators, empirical review literature and literature gaps, and conceptual framework will be discussed.

Electronic banking is a high order contrast, which consist of several distribution channels. It should be noted that Electronic Banking is a bigger platform than just banking via Internet. However, the most general type of Electronic Banking in our time is banking via Internet, in other words Internet Banking. The term Electronic Banking can be described in many ways. In a very simple form it can mean the provision of information or services by a bank to its customers, via a computer, television, telephone, or mobile phone, automated teller machine (ATMs) and e.t.c (Sharma & Abrol, 2011), for example, describes it as an electronic connection between bank and customers, in order to prepare, manage and control financial transactions. Electronic banking allows consumers to access their bank and accounts to undertake banking transactions. Nowadays the internet is the main channel for Electronic Banking (Aladwani, 2001).

2.2 Concept and definition of electronic banking

The concept of electronic banking has been defined in many ways by various researchers. According to Sharma and Abrol (2011) defines electronic banking as the carriage of banks' information and services by banks to customers through different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television. Also defined as Electronic Banking Service as banking service that allows customers to access and perform financial transactions on their bank accounts from their computers with Internet connection. (Titu & Rahman, 2013) predicted that 87% of community banks would offer Electronic Banking in 2003 to meet consumers' needs, and asserted that, Electronic Banking has advantages· for banks to maintain competition, to save costs, to enhance(Aladwani, 2001). The fast-paced technology has affected almost all industries including banking industry. Banking environment has undergone tremendous changes due to the infusion of innovative practices like Internet banking throughout the world, and India is no exception to this mass customization, marketing and communication activities, and to maintain and attract consumers. (Sharma & Abrol, 2011) stated that the Internet banks serve also as gateways offering identification and authorization services to a number of third party service providers. Rationale for 'banks' to provide Electronic Banking Services, (Titu & Rahman, 2013) indicate that

Electronic Banking helps banks in cost saving, increase customer base, enable mass customization for E-Business services, extend marketing and communication channel, search for new innovation services, and explore and development of non-core business.

2.2.1 Types of electronic banking

2.2.1.1 Mobile banking

Mobile banking is a system that allows bank customers to conduct different financial transactions through a mobile device, being the newest service in electronic banking; mobile banking relies on WAP (Wireless Application Protocol) technologies since a mobile device requires a WAP browser installed in order to allow access to information (Sharma & Abrol, 2011).

Mobile banking may be described as the newest channel in electronic banking to provide a convenient way of performing banking transaction using mobile phones or other mobile devices. The potential for mobile banking may be far greater than typical desktop access, as there are several times more mobile phone users than online PC users. Increasingly mobile life styles may also fuel the growth of anywhere, anytime applications (Titu & Rahman, 2013).

There are two main types of technologies available for use in mobile Banking: Wireless Application Protocol (WAP) and Wireless internet Gateway (WIG). WAP is an application environment and set of communication protocols for wireless devices designed to enable manufacturer, vendor, and platform independent access to the internet and advanced telephone services. WIG is a Short Message Service (SMS) - based service, in which a menu of available banking options is initially downloaded from the bank to the phone device (Sharma & Abrol, 2011)

The main hurdle in development of mobile banking is low consumer adoption due to a number of factors such as Internet connectivity costs, difficult user interface, lack of awareness amongst customers, limitations in functionality of mobile devices, accessibility issues, security concerns, organizational changes, small number of choices (only a few banks offer mobile banking), and technology overload (Shah & Clarke, 2009). The mobile banking development in Ethiopia is not full- fledged in terms of exhaustively utilizing all the mobile service one can get. Currently, of all the types of mobile banking services, most customers of the bank use notification or alarm inquiry (Sharma & Abrol, 2011).

2.2.1.2 Internet banking

Internet banking is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. The online banking system will typically connect to or be part of the core banking system operated by a bank. Some banks operate as a direct bank or virtual bank, where they rely completely on internet banking while others have existing traditional baking organization but have added internet banking as an additional service (Shah & Clarke, 2009).

According to Titu and Rahman (2013), Internet banking refers to systems that enable bank customers to access accounts and general information on bank products and services through a personal computer (PC) or other intelligent device. Internet banking products and services can include wholesale products for corporate customers as well as retail and fiduciary products for consumers. Ultimately, the products and services obtained through Internet banking may mirror products and services offered through other bank delivery channels

Online banking services are offered by fully transactional websites which allow the customers to operate on their accounts which include being able to pay different bills, to purchase and sell securities, transferring funds and also enabling customers to subscribe to other products and services offered by the bank (Aladwani, 2001).

2.2.1.3 POS (Point of sale)

It is also sometimes refers to as point of purchase (POP) or check out is the location where a transaction occurs. A ''check out'' refers to as POS terminal or more generally to the hard ware and software used for check outs, the equivalent of an electronic cash register. APOS terminal manages the selling process by a sales person accessible interface. The same system allows the creation and printing of the receipt because of the expensive involved with a POS system, the e Bay guide recommends that if annual revenue exceeds the threshold of 700,000 investments 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 payments of taxes (Shittu, 2010). It is one of the e-banking deliveries channel in which customers used it to withdraw money from the bank on behalf of ATM machine damaged and purchasing services and products from hospitals, super markets and hotels.

2.2.1.4 ATM

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

2.2.2 Dimensions of electronic banking

2.2.2.1 Trust and security

Due to this dimension of intangibility, trust plays an important role in any service as consumers are not sure of what to expect until they consume the service and hence might perceive the service as risky. Subsequently, requirement for trust emerges as it is the management of risk, instability and powerlessness and incorporates unwavering quality, genuineness, consistency, commonality, desire where a partner is similarly dedicated. Trust and security got extraordinary consideration in the showcasing writing because of the prominent impact that it has on the fulfillment of enduring and beneficial connections (Jahangir & Begum, 2008).

2.2.2.2 Service Quality

Service quality is the distinction between client desires for the service experience and the view of the services received (Sisay, 2021). Service quality can likewise be characterized as "the consumer's by and large impression of the relative mediocrity/prevalence of the association and its services" (Jahangir & Begum, 2008). Accordingly, service quality is characterized as how well a conveyed service level matches client desires.

2.2.2.3 Perceived Ease of Use

The intent to adopt digital banking is primarily determined by the ease of using the new technologies. Perceived ease of use can be defined as the degree to which an innovation is perceived not to be difficult to understand, learn or operate (Jahangir & Begum, 2008). In the case of digital banking, perceived ease of use refers to the ease of using the digital services. In applying this construct in online banking setting, banks should concentrate on website and relevant capacities to provide to the needs of their clients with the goal that an application seen less demanding to use by clients than another is more liable to be acknowledged by them and improves their goal or ability to utilize the innovation.

2.2.2.4 Perceived Usefulness

Information technology quickly changes the textures of modern development and advancement nowadays and along these lines online banking has turned out to be increasingly enhanced and complex. There are a few factors that foreordain the consumer attitude towards online banking, for example, demographic background, motivation and conduct towards various banking innovations and individual inclinations and desires from the new technology. In the context of digital banking, customers have to worry about password integrity, privacy, data encryption, hacking and the protection of personal information (Sisay, 2021).

2.3 Service Quality

The present business era is now named as "Quality Era" because perceived quality of the product is becoming the most important competition factor in business world (Wang & Teo, 2020). It is now the most powerful competition weapon and organization's life giving blood.

Perceived service quality refers to the consumer's global attitude or judgment of the overall excellence or superiority of the service. It is a result from comparisons by consumers of expectations with their perceptions of service (Lee, Lee & Yoo, 2000). That means it can be termed as the extent of matching or the degree of discrepancy to which the service delivered matches customer expectations (Yarimoglu, 2014). Delivering quality service means conforming to customer expectations on a consistent basis (Yarimoglu, 2014).

Today one of the most dominant topics of research in services is service quality. It is necessary for service providers to understand how customers evaluate the quality of service. When customers consume a product, they compare the quality of experience with their prior expectations, which leads to their satisfaction or dissatisfaction (Kang & James, 2004).

Therefore eservices marketing researchers based their work on developing a service quality concept focused on consumer behavior instead of using manufacturing quality concepts (Yarimoglu, 2014). Thus it had been recognized that customers evaluate service quality by comparing the actual performance with service expectations that they held (Lee, Lee & Yoo, 2000).

2.3.1 Service quality dimensions (Service quality Model)

As Kang and James (2004), pointed out that identification of the determinants of service quality is necessary in order to be able to specify measure, control and improve customer perceived service quality. The most frequently used scales in the measurement of perceived service quality are SERVQUAL (Yarimoglu, 2014) and SERVPERF (Kang & James, 2004). Both are the result of research work from the US school of quality thus among the models for measuring service quality, the most acknowledged and applied model in diversity of industries is the SERVQUAL (service quality) model developed by (Coulthard, 2004). The SERVQUAL model of Yarimoglu (2014), proposed a five dimensional construct of perceived service quality tangibles, reliability, responsiveness, assurance and empathy as the instruments for measuring service quality (Kang & James, 2004). Therefore in this study SERVQUAL model is used to measure to service quality of electronic banking provided by selected banks towards their customer satisfaction.

2.3.1.1 Reliability

It involves two concepts, dependability and uniformity in performance.

Reliability also means honoring the commitments in areas such as billing accuracy, proper record maintenance and delivering the service within acceptable time limit. It also refers to the correct technical functioning of a self-services technology and the accuracy of service delivery.

And reliability is the most crucial characteristics for customers in the evaluation of service quality. Kang and James (2004) advised that customers should be specifically influenced by the reliability of new technology because they might be associated with risks such as the technology malfunctioning. Lee, Lee and Yoo (2000), also considered reliability of the service as a important factor of service quality. Furthermore it is also discovered that reliability is the most crucial determinant of service quality. Research on the use of computers or technologies which share similar characteristics also affect performance (or dependability) as it is an important attribute (Coulthard, 2004). Finally, Yarimoglu, (2014), in his study revealed that reliability and accuracy are appropriate measure for assessing service that has to do with technology.

2.3.1.2 Assurance

Kang and James (2004), defined as assurance as the knowledge and courtesy of employees and their ability to inspire trust and confidence. According to Lee, Lee and Yoo (2000), in British banks assurance means the polite and friendly staffs, provision of financial advice, interior comfort, eases of access to account information and knowledgeable and experienced management team. This is made up of the guarantee that the record showing banking activities and security of account Information is not shared (Kang & James, 2004). Security is another essential determinant in the decision of consumers to use internet banking. Strong issues on security are a common concern to individuals hence their unwillingness to use internet banking (Yarimoglu, 2014). Other studies also indicated that in Australia security concerns were shown to be the major cause of the slow growth of electronic banking in the country Kang and James (2004) also indicated that risk in terms of financial, physical and social characteristics was the main cause of slow growth of electronic banking usage. Wang and Teo (2020), in their study found out that most individuals had faint knowledge and understanding of online banking security risks though they know of the risks. A further finding shows that individuals are aware that their bank will protect their privacy hence their strong confidence in their bank but have a weak confidence in technology use for online banking., Yarimoglu (2014), indicated that one of the most important future challenges facing individuals or customers of a bank is the fear of higher risks associated with using the Web for banking and financial transaction.

2.3.1.3 Responsiveness

Customers are particularly interested in the speed with which a service is offered or delivered (Kang & James, 2004). In addition, most researches have indicated that in most cases, customers overrate the processing time of a service. Base on the above Kang and James (2004), posited that on certain occasion customers has a strong liking to carry out the service by them also resolved that slow service delivery has a negative effect on individuals overall perceptions of the service quality. So, if individuals are expecting a rapid service delivery, it is probable that they will assess the service more positively (Wang & Teo, 2020). Similarly discovered also that time was a significant factor for individuals in using a new service or technology. And in the same way discovered that time savings were essential to individuals who use electronic banking and shopping (Kang & James, 2004), Customers often utilizes the bank responsiveness towards e-banking when they are on the position of withdrawing of money from ATM machine the machine may not work due to various reasons so that the customer's enforced to request the bank for immediate response of serving them in solving their problem using either POS machine found in the bank or other mechanism.

2.3.1.4 Empathy

Wang and Teo (2020), defined empathy as the caring and individual attention the firm provides its customers. It involves giving customers individual attention and employees who understand the needs of their customers and convenience business hours. Kang and James (2004), referred to empathy in their study on private sector banks as giving individual attention; convenient operating hours; giving personal attention; best interest in heart and understand customer's specific needs.

2.3.1.5 Tangibility

Wang and Teo (2020) defined tangibility as the appearance of physical facilities, equipment, personnel and written materials. Kang and James (2004), referred to tangibility in their study of 25 private sector banks as modern looking equipment, physical facility, employees are well dressed and materials are visually appealing.

2.4 Customer Satisfaction

Customer satisfaction it is an overall customer's attitude towards a service provider, or an emotional reaction to the difference b/n what customers anticipate and what they receive regarding the fulfillment of some need, goal, or desire (Musiime, & Ramadhan, 2011). Customer Satisfaction is to degree at which the product or services rich the standard of the buyer in his or her expectations. Most researchers agree that satisfaction is attitude or evaluation that is formed by the customers by comparing what they expect to receive to their subjective perceptions of the performance of they actually get (Angelova & Zekiri, 2011). The customer is satisfied of the performance of the product /services equal to his /her expectations and the opposite is there that is if the

expectations less than perceived performance, the customer is highly dissatisfied (Musiime, & Ramadhan, 2011).

2.4.1 Determinants of Customer Satisfaction

Togo through the transformation Elieza (2012), identified the drivers of customer satisfaction in banking to be performance, loyalty, Customer retention, skilled employees and competitive interest to deliver these benefits on an ongoing basic to its existing clientele will impact on customer satisfaction.

2.4.1.1 Loyalty

According to Keiningham etal., (2007), explained that loyalty is a deeply held commitment to re-buy or re-patronize a preferred product or service consistently in the future despite situational influences. According to Angelova and Zekiri (2011) intangible attributes such as reliability, competence, credibility and efficiency place a major role in building and maintaining loyalty thus a great intent to repurchase and likelihood of recommending the bank to others. it was found that Electronic banking usage had a considerable effect on customer loyalty among the internet banking users, while it had a negative impact on non-users.

2.4.1.2 Customer retention

Based on Keiningham etal., (2007), noted that retention is defined as the degree to which a customer exhibits repeat purchasing and price tolerance behavior to a service provider, and possesses a positive attitudinal and cognitive disposition, and (Elieza, 2012) said that customer retention is defined as customers' stated continuation of a business relationship with the firm. (Angelova & Zekiri, 2011) indicate that Electronic Banking is positively related to customer retention.

2.4.1.3 Performance

Performance yields clean and convincing directions for designing service offerings staff development programmers and customer complaint management systems (Levesque and Gordon, 1996). Doing it right the first time and ensuring successful problem recovery results in to reliability, competitive and shows that employees are willing and ready to provide a service.

2.4.1.4 Commitment

Commitment, just like trust, is one of the most important factors that explain the strength of a marketing relationship. In the context of banking industry, marketing relationship refers to the building of long term relationships between the bank and the customers so that they regularly make transactions with the respective banks. One of the important constructs of digital banking is relationship banking. Customers not only get the product or service they have paid for, but they also feel valued which in turns increases the loyalty towards the company (Elieza, 2012).

2.5 Empirical Review

2.5. 1. The relationship between electronic Banking and Customer Satisfaction

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

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

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

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

Raman (2008) said that serv1ce as an intangible good appeal differently to each customer and certain extent of service should be achieved in order to satisfy the customer and that the resulting commitment, loyalty and retention are critical indicators of customer satisfaction.

Customer commitment; (Power and Associates, 2009) note that on average, highly committed customers use more products or services, give more refenals and are much less likely to switch to another bank, compared with customers who have lower commitment levels. Indeed, this view is supported by Casal6, (2008), who contends that higher levels of website usability might lead to higher levels of consumer's affective commitment to the website as well a direct, positive and significant relationship between satisfaction in previous imeractions and the consumer's commitment to a financial services website.

On the other hand Khanfar et al (2006) conducted study on the customer satisfaction with internet banking web site in the Arab Bank. The study identified some factors which can determine customer's satisfaction in the use of internet banking service. Such as; customer supports, security, ease of use, digital products/services, transaction and payment, information content, and innovation. Researchers employ a survey questionnaire to gather data and their results showed that there is a narrowbased satisfaction with internet banking in all factors through a multi-regression; the researchers 16 found out that all factors have an impact on the customer satisfaction, and they have found that the relation was positive.

Various research studies on consumer attitude and adoption of internet banking have shown that there are several factors influencing the consumer's attitude towards online banking such as person's demography, motivation and behavior towards different banking technologies and individual acceptance of new technology. It has been found that consumer's attitudes toward online banking are influenced by the prior experience of computer and new technology (BK, 2015).

As far as electronic banking adoption is concerned, security, trust and privacy concerns have been outlined as extremely important ones from the consumer's standpoint (Benamati and Serva 2007). Electronic banking requires perhaps the most consumer involvement, as it requires the consumer to maintain and regularly interact with additional technology (Amir & Sheykh, 2017). Consumers who use e-banking use it on an ongoing basis and need to acquire a certain comfort level with the technology to keep using it (Lichtenstein & Williamson, 2006).

2.6 Research Gap

Ethiopia is one of a developing country that constructs and expands the banking industries in different areas; the concept and practice service quality, electronic banking service and customer satisfaction is not well developed. Accordingly, Studies which examine the effect of electronic banking service quality on customer satisfaction in Ethiopia also still sparse, only a few studies were done.

An increasing number of studies have addressed the relationship between electronic banking service quality and customer satisfaction. Accordingly, considerable positive linkage between electronic banking service quality and customer satisfaction is found by several empirical studies whereas some also reveal substantial adverse effects, and the magnitude of the linkage varies considerably. Yet, the findings from those studies have been inconsistent and has methodological and literature gaps. Consequently, experts can't give clear answer as to what electronic banking service would be beneficial to, and the conflicting results are difficult to generalize; therefore, further investigation is required. It makes inspiration and motives to do this study in addition to lack of research in Ethiopian particularly, there is no study that examined that the effect of electronic banking service quality on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches. Due to this, researcher being motivated to explore and disclose the effect of electronic banking service quality on customer satisfaction especially in the case of some selected branches of commercial bank of Ethiopia Yeka district. Therefore, this study will be contributed to fill the inconsistent, methodological and literature gap in this area, as it provides valuable empirical evidence on the effect of electronic banking service quality on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches.

2.7 Conceptual Framework

The following figure shows, the conceptual framework of this study that developed based on the research questions, works of literature and assumed relationship. It limited on components of electronic banking service quality such as Reliability, Assurance, Responsiveness, Empathy and Tangibility used as the independent

variable, and associating with customer satisfaction metrics namely; Loyalty, Customer retention, Performance and Commitment used as a dependent variable.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Research design

Both descriptive and explanatory research a design was be employed for the purpose of the study. Descriptive research design was employed because is an efficient way of gathering data to help address a research questions and one can collect unbiased data and develop sensible decision based on analyzed results. Explanatory research design was also help to clarify the relationship between two aspects of a situation or phenomena (Kumar, 2011).

3.2 Research Approach

The researcher used a quantitative research approach in this study to test hypotheses. Quantitative research approach is based on numerical and statistical data, and it is a convenient approach to manage a large amount of data which can be measured in a numerical way (Kothari, 2004). The goal of the quantitative approach is testing hypotheses. In this study the personal information of respondents was tested using descriptive statistics (average and percentage) and the assumption of classical linear regressions method such as normality, autocorrelation, correlation, and linearity assumption test model and analyzing applied using SPSS to examine and describe the effects of electronic banking service quality on customer satisfaction and in order to support the quantitative result of the study the researcher was used quantitative research approach.

3.3 Target Population

Target population is a population can be defined as all people or items (unit of analysis) with the characteristics that one wishes to study. The unit of analysis may be a person, group, organization, country, object, or any other entity that the researchers wish to draw scientific inferences about Bhattacherjee, (2012). The target populations of the study was commercial bank of Ethiopia Yeka district three selected branches employees and corporate, SMEs, Affluent and middle customers of three selected branches of Yeka district. From more than 52 branches such as grade one 21, grade two 18, grade three 10, grade four 2 and special grade 1 branches of Yeka district the three branches will be selected because of their convenience. The sample of the study was selected from out the total of 52 branches of Yeka district those three branches was selected from grade three and grade four branch by using non probability sampling of three branches these are Salite mhiret, Ayat adebabay and Kotebe Branch of which have corporate customer 16, 38,133,245, 22, 45,201,922 and 31,52,275,1253 corporate, SMEs, Affluent and middle customers respectively and the total target population was 3233 customers as of that of Yeka district first quarter raw data (November 30, 2023). The sampling units was employees and corporate, SMEs, Affluent and middle customers account customers of the selected branches.

Based on the information taken from human resource directorate of Yeka district there are around, in Salitemhiret, Ayat adebabay and Kotebe Branch employee 44, 45 and 56 are available respectively and the whole employees that the research focuses on therefore there are a total population of 145 employees of three selected branches of Yeka district. The total target population of this study from corporate, SMEs, Affluent and middle customers and employees was considered 3378.

3.4 Sample Size and Sampling Techniques

Sample is Segment of the population that was selected for investigation and the process of taking the representative of the population from the given population (Cooper & Schindler, 2006).

The total population is 3378 employees and customers the following statistical formula was applied to determine the sample.

Due to time and cost constraints and the samples will be selected from the same district, the researcher will be considered commercial bank of Ethiopia which are operating in yeka district as population of the research, it is not possible for the researcher to cover all branches of Yeka district. So, this study will be focused on three specific branches of Yeka district namely; Salitemhiret, Ayat adebabay and Kotebe Branch. Yamane (1967) sampling formula was employed to draw the sample from the population. A sample error shall be 5% exceptionally sufficient, 7% sufficient &, or 10% good: it depends on the researcher's confidence to collect the data and instrument utilized Israels, (2003). Therefore, in this study 192 respondents will be addressed in three selected branches of yeka district.

Figure 3.1 sampling

$$n = \frac{N}{1+N(e2)}, \qquad n = \frac{3378}{1+3378 \atop (0.072)} \qquad n = \underline{\mathbf{192}}$$

Where:

n =required sample size

$\mathbf{e^2}$ = is the level of precision or sampling error = (0.07)

N = Target population

Table3. 1 sample of respondent

Branches	Total number of online banking users	Sample size from each branch $N = N/(1 + N(e2))$
Salite Mhiret	476	27
Ayat	1235	70
Kotebe	1667	95
Total	3378	192

The sample sizes to this study was192 at 95 % confidence level and 0.05 significant levels employees and customers of three selected branches of Yeka district was selected using probability sampling techniques of simple random sampling techniques by lottery to select in order to collect the data because all branches had similar organizational structures or they have homogenous characteristics and taking the total population will impossible due to time constraints. In this study both convenient and random sampling method will be used. A convenient sampling method was used to select the target population and random sampling technique was used to select the respondents for the data collection process.

3.5 Source of data

To collect the necessary data to this study was used both primary and secondary source of data. The primary data was collected from selected branches of Yeka district employees and customers. The primary data was obtained from employees and customers through a well-structured close-ended questionnaire. The secondary data was collected from different sources such as, previous studies, library books, published journal articles, and other source like websites was considered as secondary data which were important to prepare literature review. The secondary source of data to this research was interview.

3.6 Variable of the study

- Independent Variable: electronic banking service quality
- Dependent Variable: customer satisfaction
- Demographic variable: Gender, Age, Education background, Marital Status, year of experience and branch name of the employees.

3.7 Model specification

A Regression analyses was conducted to determine the intervening the relationship between online banking, digital culture and customer satisfaction. For this purpose, the researcher established regression models as illustrated below:

Model 1: $Y = \gamma 0 + \gamma X + \varepsilon 1$----------Equation 1 or

$Y=\gamma 0 + \gamma 1X1+\gamma 2X2+\gamma 3X3+\gamma 4X4+ \gamma 5X5+ \beta \varepsilon 1$

Where: Y is Dependent variable = customer satisfaction,

X is predictor variable = electronic banking service quality,

X1= Reliability,

X2= Assurance,

X3 = Responsiveness,

X4=Empathy,

X5= Tangibility,

γ is the overall effect that establishes the zero-order correlation between X and Y

$\varepsilon 1$, is unexplained variability of equations.

While $\gamma 0$, is the intercepts for equations.

3.8 Data collection tools/instrument

This study was used close ended questioners. In this study, the researcher was used structured questionnaires to collect quantitative data from respondents. The close-ended questionnaires was chose to collect data, because, it was enable the researcher to reach a number of respondents within a limited period of time and it is convenient to ensure the privacy of respondents and also it enable to cover more ground within a limited time frame, particularly for respondents who have severe time constraints.

Hence, the questionnaires was self-administered based on the literature review of the independent and dependent variable on the mediating role of role of digital banking on utilization of online banking and customer satisfaction. The questioners was originally prepared in English language in a five rating scale (liker scale) such as strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree with members of the all employees of three selected branches of Yeka district to answer the questions and return it.

3.9 Instrument Design & Development

A thorough reading and analysis of numerous literatures covering online banking ideas in general, dimensions or measure of electronic banking service quality and customer satisfaction in particular was undertaken prior to the design of the instrument. Moreover, the language of each item will be reviewed to see if it was easily understandable or not in this study.

The questionnaire in this study will had three parts:

- Part I: This part of the questionnaire has asked general information of respondents. There were about 6 (six) questions in this part.
- Part II: This part of the questionnaire contained 20 (Twenty) which the main questions were or the core constructs items of the questionnaire about electronic banking service quality from the three selected branches of Yeka district. Respondents will be asked to check/thick the dimensions or measure of electronic banking service quality and related electronic banking practices. The answers will be explained as A five level Likert scale; strongly agree = 5, agree = 4, neutral = 3, disagree = 2, and strongly disagree = 1 was used to measure the items of the questionnaire on the effect of electronic banking service quality and customer satisfaction.
- Part III: This part of the questionnaire contained 15 (Fiften) items of question about customer satisfaction that asked respondents to put their in Likert scale type of question in the seven selected branches of Yeka district.

3.10 Validity and reliability of the study

3.10.1 Validity

Validity gives details of how well the collected data covers the actual area of investigation. It basically means measure what is intended to be measured. A measure is valid if it measures what it is supposed to measure.

according to (Ahmed & Yaacob, 2021), validity is the extent to which the item in an instrument covers the entire range of the significant aspects of the area being investigated. It is the degree to which the measurement device, in this case, the measuring questions in the questionnaire, provides sufficient coverage of the research investigative questions. It gives details of how well the collected data covers the actual area of investigation. It basically means measure what is intended to be measured. Hence, to maintain the validity of the instruments in this study, the questionnaires were adopted from previous researches with some modification and invite experts to evaluate it.

3.10.2 Reliability

Reliability refers to the capability of an instrument to produce consistent measurements. When the researcher gather a similar set of information more than once using a similar instrument and get the same or similar results under the same or similar conditions, an instrument is considered to be reliable. The most popular method of testing for internal consistency in is Cronbach's coefficient alpha. Cronbach's alpha coefficient typically ranges between 0 and 1. According to (Gliem, 2003), suggest following rules of thumb: if "$\alpha > 0$ .9 – Excellent, $\alpha > 0.8$ – Good, $\alpha > 0.7$ – Acceptable, $\alpha > 0.6$ – Doubtful, and $\alpha > 0.5$ – Poor, and $\alpha < 0.5$ – Unacceptable (Kimberlin & Winterstein, 2011).

3.11 Methods of Data analysis

After all the data was collected through questionnaires, its completeness is verified, coded, and entered the computer using SPSS. Means that the data was analyzed by using application software packages named as Statistical Package for Social Sciences (SPSS) version 26 through descriptive and inferential statistics.

Summary of statistics was organized in the form of qualitative and quantitative measurement by using descriptive statistics frequency distribution, mean calculation, percentage, and inferential statistics for testing hypothesis such as regression, Normality test, homoscedacity test, linearity test, multicollinearity, and correlation in order to analyses the questioner and it was examined the relationship electronic banking service quality and customer satisfaction in the case of commercial bank of Ethiopia Yeka district three selected branches.

3.12 Ethical Consideration

Ethics is particularly significant components throughout the research procedures and if failed to be taken into account, it can lead to misinterpretation or even invalid conclusions. Hence, in this paper did not go under any form of bias or change, and the researcher respected the code address issues such as honesty, objectivity, respect for intellectual property, social responsibility, confidentiality, non-discrimination. Besides, Respondent was informed about the objective and purpose of the study and their consent was obtained for better participation in this study, and their identity would be kept confidential.

CHAPTER FOUR

DATA ANALYSIS &INTERPRETATION

4.1 Response rate

To achieve the aim of study 192 valid questionnaires were of commercial bank of Ethiopia Yeka district some selected branches. Among the 192 questionnaires survey forms distributed, 3 were not returned and/or declined to participate. 5 of the returned questionnaires were deemed invalid, and the final number of valid questionnaires was 184 usable questionnaires available for analysis.

Table4. 2 Response rate

Response rate	Number of Replies	Not Returned and/or Declined to Participate	Missed and outliers	Total
Frequency	184	3	5	192
Percentage	95.8	1.6	2.6	100

Source: Own Survey

The overall response rate of 95.8% (184 responses/192 questionnaires), which is the valid number to run all required analysis. After the response rate was determined the demographic character of respondents was analyzed as follows:

4.2 Respondents General Information

As depicted in the table below, when the researcher see the gender division of the respondents, the majority of the respondents were males; i.e. (109) 59.2% representing the bigger part of the sample group. However (75) 40.8 % of the respondents were females. This study was mainly aimed at those respondents who work in commercial bank of Ethiopia Yeka district some selected branches.

Table 4.3 Respondents General Information

Variable	Category	Frequency	Percent (%)	Cumulative %
Gender	Male	109	59.2	59.2
	Female	75	40.8	40.8
Age of the respondents	31 - 40 Years	65	35.3	35.3
	41 -50 years	66	35.9	35.9
	Above 50 years	53	28.8	28.8
Level of education	BA/BSC	86	46.7	46.7
	MA/MSC	66	35.9	35.9
	PhD	10	5.4	5.4
	others	22	12.0	12.0
Marital status of the respondents	Married	98	53.3	53.3
	Single	86	46.7	46.7
respondents branch name	salite mhret brunch	26	14.1	14.1
	Ayat adebabay brunch	66	35.9	35.9
	Koteba brunch	92	50.0	50.0
Experience in CBE as a customer	2-5 years	22	12.0	12.0
	5-10 years	73	39.7	39.7
	Above 10 years	89	48.4	48.4

Source: Own Survey

As depicted in the table above, when the researcher see the related to the age of the respondents in commercial bank of Ethiopia Yeka district some selected branches 65 (35.3%) of the respondents were between 31 - 40, 66 (35.9%) were between 41-50 and 53(28.8%) of the respondents were 50 and above respectively. From the information that is given indicates the majority of the respondents were the age between 41-50 years.

Regarding level of education most of the employees (86), 46.7% of respondents are BSc/BA holders, followed by (66) 35.9% MSc/MA holder of respondents, (10) 5.4% PhD holder of respondents and finally (22) 12% of respondents are others. This implies that commercial bank of Ethiopia Yeka district some selected branches hires educated personnel, and they can read and understand the messages and contents of this questionnaire.

From 184 valid respondents from the three selected branches of yeka district, 53.3% of respondents were married and 46.7% of respondents were single.Furthermore, (26) 14.1% of the respondents were from salite mhret brunch, (66) 35.9% of respondents were from Ayat adebabay brunch and finally (92) 50% of respondents were from Koteba brunch. This implies that the respondents were able to understand the cases sought by the research based on the different customer experience they belong to.

In this demographic profile the service year of the respondents in stayed in CBE as well as in their current position ensures that validity of questionnaire responses that respondents stay enough in CBE as well as in their digital culture to use electronic banking quality and to give valid response on the items described on the questionnaire

4.3 Test of Reliability and Validity

4.3.1 Test of reliability

The most popular method of testing for internal consistency in is Cronbach's coefficient alpha. Cronbach's Alpha is an indicator of the degree of internal consistency of scales. The higher the coefficient the higher degree of consistency denotes; >0.9 Excellent, >0.8-Good, >0.7-Acceptable, >0.6Quesstionable, >0.5-Poor, <0.5-Unacceptable (Hair et al., 2006).

In this study reliability was tested by α value. α measure of reliability that ranges from 0 to 1, with values of greater than .70 deemed the best of acceptability (Hair et al., 2006). Thus, the reliability of variables in this study is within the acceptable ranges (between 0.798 and 0.921).

Table 4. 4 Test of reliability

Variable	Cronbach's Alpha	No. of item
Electronic banking service quality	.798	20
Customer satisfaction	.921	15

Source: Own Survey

As the above table show that all the items used to measure the dimensions of this particular study scored calculated alpha values that range from the lowest value of 0.798 to the highest value of 0.921.

4.3.2 Test of validity

In this study, Content validity was measured. Content validity address to what extent the appropriate content is representing in questionnaires. To check either the measurement items describe variables or not the researcher takes feedback from the advisor and managers of the commercial bank of Ethiopia Yeka district some selected branches. Creation-related validity was also used; since the questionnaire is adopted from standardized questionnaires.

4.4 Electronic banking service quality in commercial bank of Ethiopia Yeka district some selected branches

Based on the data collected from the respondents, the extent of Electronic banking service quality in commercial bank of Ethiopia Yeka district some selected branches presented as follow. Here, variables of Electronic banking service quality were Reliability, Assurance, Responsiveness, Empathy and Tangibility. As induced before. The distributed questionnaires developed via five-point Likert scale; 1- Not at all ; 2- Rarely; 3- Occasionally; 4- Often; 5 - Extensively.

Accordingly, analysis of the data was done using means and standard deviations, the recorded means were interpreted as follows: 1-1.49 = Not at all; 1.5-2.49 = rarely; 2.5-3.49 = occasionally; 3.5-4.49 = Often; 4.5-5.0 = Extensively (Lady, 2016).

4.4.1 Reliability in commercial bank of Ethiopia Yeka district some selected branches

Overall, the data collected from respondents were used to determine the extent of electronic banking service quality were Reliability, Assurance, Responsiveness, Empathy and Tangibility as well level of commercial bank of Ethiopia Yeka district some selected branches performance via descriptive statistics: mean and standard deviation. Specifically In this section, the level of practicing Reliability in commercial bank of Ethiopia Yeka district some selected branches was determined through descriptive statistics as follow:

Table 4.5 Reliability in commercial bank of Ethiopia Yeka district some selected branches

Metrics of Reliability	N	Mean	Std. Deviation
E-banking service quality completes a task accurately	184	4.21	.960
E-banking service quality perform the service right at the first time	184	3.82	.911
The bank provides its Electronic based service at the time it promised	184	4.23	.657

to do so			
When I have a problem the bank shows a sincere interest in solving it	184	4.39	.489
Handling of customer detail and transaction processing without error	184	3.54	1.039
Grand mean	184	4.0380	.35922

Source: Own Survey

As depicted in the above table, When I have a problem the bank shows a sincere interest in solving it (M=4.39, SD=0.489), The bank provides its Electronic based service at the time it promised to do so (M=4.23, SD=.657), E-banking service quality completes a task accurately (M=4.21, SD=0.960) and E-banking service quality perform the service right at the first time (M=3.82 , SD=0.911) were often practiced followed by Handling of customer detail and transaction processing without error (M=3.54, SD=1.039) and connection among all internal functions from electronic banking service quality, and reliability in general (M=3.6616, SD=0. 51150) occasionally practiced respectively in commercial bank of Ethiopia Yeka district some selected branches.

4.4.2 Assurance in commercial bank of Ethiopia Yeka district some selected branches

In this section, the study sought to disclose the level of practicing Assurance in commercial bank of Ethiopia Yeka district some selected branches. The results are shown in the below table.

Table 4. 6 Assurance in commercial bank of Ethiopia Yeka district some selected branches

Metrics of Assurance	N	Mean	Std. Deviation
I feel secured and safe in my transactions with the bank	184	3.8227	0.65774
Bank staffs have the knowledge to answer my questions about ATM, POS, Mobile & Internet banking service	184	3.7518	0.78518
The bank electronic service instills confidence in me to get the service at any time I want.	184	3.3759	0.72249
Grand mean	184	3.7264	.43877

Source: Own Survey

As presented in the above table, I feel secured and safe in my transactions with the bank (M=3.8227, SD=0.65774), were often practiced followed by Bank staffs have the knowledge to answer my questions about ATM, POS, Mobile & Internet banking service (M=3.7518, SD=0.78518), and The bank electronic service instills confidence in me to get the service at any time I want. (M=3.3759, SD=0.72249) were occasionally practiced respectively the commercial bank of Ethiopia Yeka district some selected branches.

4.4.3 Responsiveness in commercial bank of Ethiopia Yeka district some selected branches

Under this section of discussion, the level of practicing Responsiveness in commercial bank of Ethiopia Yeka district some selected branches was discussed as follow.

Table 4. 7. Responsiveness in commercial bank of Ethiopia Yeka district some selected branches

Metrics of Stock availability	N	Mean	Std. Deviation
Bank staffs tell you exactly when the service will be performed	184	3.92	.884
Bank employees are never too busy to respond to my electronic banking centered request	184	3.99	.983
The bank is always willing to assist you in operating electronic banking system.	184	3.87	.908
Customer services given by the bank is excellent	184	3.46	.922
Bank employee understand the customer more easily	184	3.87	.908
Bank offers other alternatives when there is insufficient service	184	3.71	.842
Grand mean	184	3.8043	.42365

Source: Own Survey

As the above table shown, Bank employees are never too busy to respond to my electronic banking centered request (M=3.99, SD=0.983), and Bank staffs tell you exactly when the service will be performed (M=3.92, SD=0.884) were often practiced followed by The bank is always willing to assist you in operating electronic banking system and Bank employee understand the customer more easily (M=3.87, SD=0.908), Bank offers other alternatives when there is insufficient service (M=3.71, SD=0.842) and Customer services given by the bank is excellent (M=3.4681, SD=0.62739) were occasionally practiced respectively in commercial bank of Ethiopia Yeka district some selected branches.

4.4.4 Empathy in commercial bank of Ethiopia Yeka district some selected branches

Under this section of discussion, the level of practicing Empathy in commercial bank of Ethiopia Yeka district some selected branches was discussed as follow.

Table4. 8. Empathy in commercial bank of Ethiopia Yeka district some selected branches

Metrics of Empathy	N	Mean	Std. Deviation
The bank provides me individual attention	184	3.92	.884
The bank has convenient operating hours of electron banking services to me	184	3.99	.983
The bank has my best interest at heart	184	3.87	.908
Grand mean	184	3.5870	.81779

Source: Own Survey

As the above table shown, The bank has convenient operating hours of electron banking services to me (M=3.99, SD=0.983) was often practiced followed by The bank provides me individual attention (M=3.92, SD=0.884) and The bank has my best interest at heart (M=3.87, SD=0.908) were occasionally practiced respectively in commercial bank of Ethiopia Yeka district some selected branches.

4.4.5 Tangibility in commercial bank of Ethiopia Yeka district some selected branches

In this section, the study sought to disclose the level of practicing **Tangibility** in commercial bank of Ethiopia Yeka district some selected branches. The results are shown in the below table.

Table4. 9 Tangibility in commercial bank of Ethiopia Yeka district some selected branches

Metrics of Tangibility	N	Mean	Std. Deviation
The bank has modern looking equipment and tools	184	4.12	.570
The banks physical features are visually nice	184	3.77	.890
Materials associated with electronic banking service are visually appealing at the bank	184	3.98	.859
Grand mean	184	3.9565	.22700

Source: Own Survey

As depicted in the above table, The bank has modern looking equipment and tools (M=4.12, SD=.570), Materials associated with electronic banking service are visually appealing at the bank (M=3.98, SD=.859) and The banks physical features are visually nice (M=3.77, SD=.890) were occasionally practiced respectively in commercial bank of Ethiopia Yeka district some selected branches.

4.4.4 Metrics of customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches

In this part of the study, the degree of customer satisfaction level of some selected midroc companies in Addis Ababa presented as follow:

Table4. 10 Metrics of customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches

Metrics of customer satisfaction of some selected midroc companies in Addis Ababa	N	Mean	Std. Deviation
Loyalty			
The bank has built best interest at heart of the customer	184	3.59	1.294
The customer has positive feelings about online banking tells to other people	184	3.67	.908
The customer consider online banking is the first choice to buy services	184	4.19	.769
I am satisfied with the reliability of the e- banking services of CBE.	184	3.60	1.206
The bank has built best interest at heart of the customer	184	3.59	1.294
Overall mean	184	3.7609	.29664
Customer retention			
The customer has high price tolerance behavior to a service provider	184	3.88	.850
The customers' stated continuation of a business relationship with the bank	184	4.14	.936
E-banking banking brings customer retention in your organization	184	4.04	.889

Overall mean	184	4.0181	.48752
performance			
The organization develop reliability towards customer about E-banking banking	184	3.82	.872
The employees are always ready to provide E-banking banking service for the customer	184	3.76	.867
The organization is willing for customer complaint about E-banking banking service	184	4.41	.593
The customer satisfied with the ease of use of the e- banking services of CBE	184	3.72	1.069
The customer is always satisfied when CBE delivered Electronic banking service	184	3.68	1.092
Overall mean	184	3.8772	.42429
commitment			
The bank built long term relationships between the customers by E-banking service	184	3.87	1.021
The bank improve loyalty towards customer about E-banking banking	184	3.99	.983
The customer feel high trust on E-banking service of the bank	184	4.03	.886
Overall mean	184	3.9656	.69040
Grand mean	184	3.9054	.28428

Source: Own Survey

In addition, the above table depicts that The organization is willing for customer complaint about E-banking banking service (M=4.41, SD=.593), The customer consider online banking is the first choice to buy services (M=4.19, SD=.769), The customers' stated continuation of a business relationship with the bank (M=4.14, SD= .936), E-banking banking brings customer retention in your organization (M=4.04, SD=.889), the customer feel high trust on E-banking service of the bank (M=4.03, SD=.886), The bank improve loyalty towards customer about E-banking banking (M=3.99, SD=.983), The customer has high price tolerance behavior to a service provider (M=3.88, SD=.850), The bank built long term relationships between the customers by E-banking service (M=3.87, SD=1.021), The organization develop reliability towards customer about E-banking banking (M=3.82, SD=.872), The employees are always ready to provide E-banking banking service for the customer (M=3.76, SD=.867), The customer is always satisfied when CBE delivered Electronic banking service (M=3.68, SD=1.092), The employees are always ready to provide E-banking banking service for the customer (M=3.76, SD=.867), The customer has positive feelings about online banking tells to other people (M=3.67, SD=.908),were often practiced followed by I am satisfied with the reliability of the e- banking services of CBE (M=3.60, SD=1.206), The bank has built best interest at heart of the customer (M=3.59, SD=1.294) and The bank has built best interest at heart of the customer (3.59, SD=1.294) were occasionally practiced respectively in commercial bank of Ethiopia Yeka district some selected branches.

4.5 Correlation analysis

In addition to describing the shape of variable distributions, another important task of this study was to examine and describe the degree of co-variability of the variables.

Correlations are perhaps the most basic and most useful measure of relationship between two or more variables. According to (Kothari, 2004), the degree of the correlation coefficient defines the strength of the correlation. When r = (+) 1, it indicates a perfect positive correlation and when it is (–) 1, it indicates a perfect negative correlation. The value of 'r' nearer to +1 or –1 indicates a high degree of correlation between the two variables). A result between 0.1 and 0.3 indicates weak relationship, whereas a result between 0.4 and 0.6, and 0.7 and 0.9 implies respectively moderate and strong relationships among variables.

4.5.1 Correlation between electronic banking service quality and customer satisfaction

Here, the researcher carried out a correlation analysis to test the relationship between set of electronic banking service quality elements and metrics of customer satisfaction. Electronic banking service qualities in this study were: Reliability, Assurance, Responsiveness, Empathy and Tangibility, as well, metrics of customer satisfaction in this study were: Loyalty, Customer retention, performance and commitment. Therefore, the findings for this analysis were shown in the following correlation matrix table as follow.

Table4.11 Correlation between electronic banking service quality and metrics of customer satisfaction

		Loyalty	Customer retention	Performance	Commitment
Reliability	Pearson Correlation	.329**	.535**	.746**	.170*
	Sig. (2-tailed)	.000	.000	.000	.021

	N	184	184	184	184
Assurance	Pearson Correlation	.292**	.161*	.140	.370**
	Sig. (2-tailed)	.000	.029	.000	.000
	N	184	184	184	184
Responsiveness	Pearson Correlation	.065	.589**	.494**	.358**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	184	184	184	184
Empathy	Pearson Correlation	.408**	.267**	.254**	.582**
	Sig. (2-tailed)	.000	.000	.001	.000
	N	184	184	184	184
Tangibility	Pearson Correlation	.189*	.561**	.003**	.529**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	184	184	184	184
**. Correlation is significant at the 0.01 level (2-tailed).					

Source: Own Survey

From the above Pearson correlation coefficient analysis table: the set of electronic service quality components mentioned as independent variables in the model and metrics of customer satisfaction have been a positive relationship.

In depth, the result of this study shown in the above table: Reliability has statistically a strong and positive association with Loyalty, Customer retention and Performance of with Pearson correlation coefficient value r=.329**, p<0.01, .535**, p<0.01 and r=.746**, p<0.01 respectively. But Reliability has statistically a weak association with Commitment of commercial bank of Ethiopia Yeka district some selected branches with Pearson correlation coefficient value r= .170**, p<0.01. Furthermore, the result present that Assurance has statistically a moderate positive association with Commitment of commercial bank of Ethiopia Yeka district some selected branches with Pearson correlation coefficient value r=.370**, p<0.01. Although, Assurance has statistically a weak association with Loyalty , Customer retention and Performance of commercial bank of Ethiopia Yeka district some selected branches with Pearson correlation coefficient value r=.292**, p<0.01, r=.161**, p<0.01 and r=.140, , p<0.01.

Responsiveness has statistically a strong and positive association with Customer retention, Performance and Commitment of with Pearson correlation coefficient value r=.589**, p<0.01, .494**, p<0.01 and r=.358**, p<0.01 respectively. But Responsiveness has statistically a weak association with Loyalty of commercial bank of Ethiopia Yeka district some selected branches with Pearson correlation coefficient value r= .065**, p<0.01.

Empathy has statistically a strong and positive association with Loyalty and Commitment of with Pearson correlation coefficient value r=.561**, p<0.01 and r=.529**, p<0.01 respectively. But Empathy has statistically a weak association with Customer retention and Performance of commercial bank of Ethiopia Yeka district some selected branches with Pearson correlation coefficient value r= .267**, p<0.01 and r=.254**, p<0.01.

Lastly, Tangibility has statistically a strong positive association with Customer retention and Commitment of commercial bank of Ethiopia Yeka district some selected branches with Pearson correlation coefficient value r=.633**, p<0.01 and r=.580**, p<0.01 respectively. But Tangibility has statistically a weak association with Loyalty and Performance of commercial bank of Ethiopia Yeka district some selected branches with Pearson correlation coefficient value r= .189*, p<0.01 and r= .003**, p<0.01

To sum up, the correlation analysis shows that there was statistically a strong, a moderate and a weak positive significant relationship between set of electronic service quality mentioned in the model and the metrics of customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches.

4.5.2 Correlation between inventory management and overall of performance the organization

The above correlation analysis carried out to shows the relationship between electronic banking service quality elements (Reliability, Assurance, Responsiveness, Empathy and Tangibility) and metrics of customer satisfaction (Loyalty, Customer retention, performance and commitment) each other's in particular

Here, the researcher carried out a correlation analysis to test the relationship between set of electronic banking service quality elements and overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches. Accordingly, the findings for this analysis were shown in the following correlation matrix table as follow.

Table4.12 Correlation between electronic banking service quality and overall of electronic banking service quality and metrics of customer satisfaction

		Reliability	Assurance	Responsiveness	Empathy	Tangibility	Customer satisfaction survey
Reliability	Pearson Correlation	1	-.135	.228**	.239**	.239**	.697**
	Sig. (2-tailed)		.068	.002	.001	.001	.000

	N	184	184	184	184	184	184
Assurance	Pearson Correlation	-.135	1	-.291**	-.333**	-.333**	.027
	Sig. (2-tailed)	.068		.000	.000	.000	.001
	N	184	184	184	184	184	184
Responsiveness	Pearson Correlation	.228**	-.291**	1	.498**	.498**	.637**
	Sig. (2-tailed)	.002	.000		.000	.000	.000
	N	184	184	184	184	184	184
Empathy	Pearson Correlation	.154*	.592**	.398**	.073	.073	.457**
	Sig. (2-tailed)	.037	.000	.000	.326	.326	.000
	N	184	184	184	184	184	184
Tangibility	Pearson Correlation	.239**	-.333**	.498**	1	1	.511**
	Sig. (2-tailed)	.001	.000	.000			.000
	N	184	184	184	184	184	184
Customer satisfaction survey	Pearson Correlation	.697**	.027	.637**	.511**	.511**	1
	Sig. (2-tailed)	.000	.718	.000	.000	.000	
	N	184	184	184	184	184	184

Source: Own Survey

As the above Pearson correlation coefficient analysis table shown: the set of electronic banking service quality components mentioned as independent variables in the model and customer satisfaction have been a positive relationship.

In depth, the result of this study shown in the above table: Reliability has statistically a strong positive association with overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches with Pearson correlation coefficient value r=.697**, p<0.01. Whereas, Responsiveness, Tangibility, Empathy and Assurance has statistically a moderate positive association with overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches with Pearson correlation coefficient value r=637**, p<0.01, r=.511**, p<0.01, r=.457**, p<0.01 and r=.027**, p<0.01 respectively.

To sum up, the correlation analysis shows that there was statistically a strong, and moderate positive significant relationship between set of Electronic service quality mentioned in the model and overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches.

4.6 Regression Analysis

As stated in chapter one the objectives of this study was examining the effect of Electronic service quality (Reliability, Assurance, Responsiveness, Empathy and Tangibility) on customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches. Therefore, to attain those objectives, multiple linear regression analysis was employed.

Regression analysis is a statistical method to deal with the formulation of a mathematical model depicting relationship amongst variables which can be used for the purpose of prediction of the value of the dependent variable, given the value of the independent (Kothari,2004). Therefore via the multiple linear regressions analysis efforts were made to determine the predictive power of the service quality service quality (Reliability, Assurance, Responsiveness, Empathy and Tangibility), on metrics of customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches (Loyalty, Customer retention, Performance and Commitment) and on overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches.

But first of all, multiple linear regression analysis needs several key assumptions: (1) there must be a linear relationship between the outcome variable and the independent variables. (2) Multivariate Normality–Multiple regression assumes that the residuals are normally distributed. (3) No Multicollinearity- Multiple regression assumes that the independent variables are not highly correlated with each other.

4.6.1 Test for assumptions

- **Normality:** Regression assumes that variables have normal distributions. Non-normally distributed variables (highly skewed or kurtosis variables, or variables with substantial outliers) can distort relationships and significance tests. A distribution or data set is symmetric if it looks the same to the left and right of the center point. The Skewness and kurtosis test results of the data are within the acceptable range (-1.0 to +1.0) and it can be concluded that the data is normally distributed.

Table4. 13 Test of normality

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
RL1	184	4.21	.960	-1.298	.179	.826	.356
RL2	184	3.82	.911	-1.030	.179	.291	.356

RL3	184	4.23	.657	-.287	.179	-.734	.356
RL4	184	4.39	.489	.449	.179	-1.818	.356
RL5	184	3.54	1.039	-.339	.179	-1.114	.356
A1	184	3.67	.908	-.712	.179	-.342	.356
A2	184	3.74	1.185	-.408	.179	-1.349	.356
A3	184	3.77	.890	-.604	.179	-.251	.356
RS1	184	3.92	.884	-.955	.179	.456	.356
RS2	184	3.99	.983	-.791	.179	-.333	.356
RS3	184	3.87	.908	-.757	.179	-.050	.356
RS4	184	3.46	.922	-.610	.179	-.945	.356
RS5	184	3.87	.908	-.757	.179	-.050	.356
RS6	184	3.71	.842	-.689	.179	-.024	.356
E1	184	3.09	.913	-.174	.179	-1.788	.356
E2	184	3.87	.908	-.757	.179	-.050	.356
E3	184	3.80	1.176	-.551	.179	-1.198	.356
T1	184	4.12	.570	.012	.179	-.009	.356
T2	184	3.77	.890	-.604	.179	-.251	.356
T3	184	3.98	.859	-1.172	.179	1.124	.356
L1	184	3.59	1.294	-.247	.179	-1.669	.356
L2	184	3.67	.908	-.712	.179	-.342	.356
L3	184	4.19	.769	-1.068	.179	1.433	.356
L4	184	3.60	1.206	-.223	.179	-1.505	.356
CR1	184	3.88	.850	-1.000	.179	.666	.356
CR2	184	4.14	.936	-1.216	.179	.796	.356
CR3	184	4.04	.889	-1.159	.179	.942	.356
P1	184	3.82	.872	-.793	.179	.135	.356
P2	184	3.76	.867	-1.144	.179	.504	.356
P3	184	4.41	.593	-.430	.179	-.673	.356
P4	184	3.72	1.069	-.661	.179	-.853	.356
P5	184	3.68	1.092	-.506	.179	-1.063	.356
C1	184	3.87	1.021	-.762	.179	-.487	.356
C2	184	3.99	.983	-.791	.179	-.333	.356
C3	184	4.03	.886	-1.158	.179	.957	.356
Valid N (listwise)	184						

Source: Own Survey

Based on survey result on table above the data were normally distributed. All most all of the results, i.e. Skewness and Kurtosis were between1.0 to +1.0. So the result of Kurtosis and Skewness exists between -1.0 to +1.0 which is acceptable and error term for each variable is constant.

- **Multicollinearity:** Multiple regressions assume that the independent variables are not highly correlated with each other. But when there is highly correlation between independent variables the situation is called Multicollinearity**.** It makes regression model not be able to accurately associate variance in outcome variable with the correct predictor variable, and leading to muddled results and incorrect inferences. This assumption is tested using Tolerance and Variance Inflation Factor (VIF) values.

Table4. 14 Test of Multi collinearity

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.742	.000		.733	000		
	Reliability	.165	.025	.178	18.545	.000	.882	1.134
	Assurance	.271	.035	.218	7.663	.000	.298	3.357
	Responsiveness	.169	.032	.189	11.374	.000	.378	2.646
	Empathy	.133	.000	.149	.476	.000	.776	9.100
	Tangibility	.206	.045	.204	6.871	.000	.700	1.429

a. Dependent Variable: customer satisfaction survey

Source: Own Survey

Tolerance should be more than 0.2 and VIF should be less than 10 (Bagheri & Midi, 2009). Based on the output of survey shown on Table above the Multicollinearity test was acceptable. Since, Tolerance and VIF (variance inflation factor) were met the requirement or standard. As shown on the table Tolerance was more than 0.2 and VIF was less than 10.

4.6.2 Electronic banking service quality effects on metrics of customer satisfaction

Under this section, linear regression was employed to determine how much the independent variables (Electronic banking service quality) explain the dependent variable which is metrics of customer satisfaction (Loyalty, Customer retention, performance and commitment). Accordingly, the result of the regression was presented in the table as follows:

© Recap that: ***Model 1 infers***- Electronic banking service quality *effects on customer satisfaction*

Model 2 infers- *Electronic banking service quality effects on Loyalty*
Model 3 infers- *Electronic banking service quality effects on Customer retention*
Model 4 infers- *Electronic banking service quality effects on performance*
Model 5 infers- *Electronic banking service quality effects on commitment*

Table4. 15 Regression analysis model summaries between Electronic banking service quality and metrics of customer satisfaction

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.655[a]	.429	.413	.22727
a. Predictors: (Constant), Tangibility, Empathy, Reliability, Responsiveness, Assurance b. Dependent variable: Loyalty				

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.769[a]	.591	.580	.31602
a. Predictors: (Constant), Tangibility, Empathy, Reliability, Responsiveness, Assurance b. Dependent variable: customer retention				

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.906[a]	.822	.817	.18173

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

b. *Dependent variable:* ***Performance***

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.818[a]	.669	.659	.40303

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

b. Dependent variable: commitment

Source: Own Survey

As indicated in the above models summary table, the values of R, (multiple correlation coefficients) are .655, .769, .906 and .818 respectively which indicates that inventory management have statistically a positive strong correlation with Loyalty , Customer retention, Performance and Commitment of commercial bank of Ethiopia Yeka district some selected branches respectively.

As well, The R Square values (coefficients of determination), are .429, .591, .822 and .669 respectively, which indicate the proportion of variance in the set customer satisfaction metrics that can be explained by the set electronic service quality as stated respectively on the model. Accordingly, as the model induced, 42.9% Loyalty , 59.1%Customer retention, 82.2% Performance and 66.9 % Commitment variations of commercial bank of Ethiopia Yeka district some selected branches can be explained by set of electronic service quality mentioned in the model. Lastly, adjusted R-squared provides an adjustment to the R-squared statistic such that; the set electronic service quality has a correlation to customer satisfaction metrics of case companies increases adjusted R-squared and any set electronic service quality without a correlation will make adjusted R-squared decrease. Therefore, adjusted R-squared is more preferred for goodness of prediction than R-squared, According to adjusted R-squared, 41.3% Loyalty, 58% Customer retention, 81.7 % Performance and 65.9% Commitment variations of commercial bank of Ethiopia Yeka district some selected branches can explained by the combined effect of all the predictor variables mentioned in the models.

Table4. 16 ANOVA model fit

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.909	5	1.382	26.751	.000[b]
	Residual	9.194	178	.052		
	Total	16.103	183			

a. Dependent Variable: Loyalty

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

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.718	5	5.144	51.502	.000[b]
	Residual	17.777	178	.100		
	Total	43.495	183			

a. Dependent Variable: Customer retention

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

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.065	5	5.413	163.895	.000[b]
	Residual	5.879	178	.033		
	Total	32.944	183			

a. Dependent Variable: Performance

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

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.314	5	11.663	71.802	.000[b]
	Residual	28.912	178	.162		
	Total	87.226	183			

a. Dependent Variable: Commitment

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

Source: Own Survey

The ANOVA table helps to test whether the overall regression model (the above model summary) is a good fit for the data. Accordingly, the set of electronic service quality mentioned in the model statistically significant to predict the metrics of customer saatisfaction of commercial bank of Ethiopia Yeka district some selected branches at F = 26.751, p < .001, F = 51.502, p < .001, F = 163.895, p < .001 and F = 71.802, p < .001 respectively as mentioned in the above ANOVA table . As a result, this study sum up that the regression model is a good fit of the data.

Table4. 17 Regression coefficients

Coefficients[a]

Model		*Unstandardized Coefficients*		*Standardized Coefficients*	*t*	*Sig.*
		B	*Std. Error*	*Beta*		
1	*(Constant)*	*.845*	*.505*		*1.677*	*.000*
	Reliability	*.382*	*.050*	*.463*	*7.64*	*.000*
	Assurance	*.078*	*.070*	*.115*	*1.114*	*.000*
	Responsiveness	*.210*	*.065*	*.300*	*3.231*	*.001*
	Empathy	*.132*	*.039*	*.140*	*3.385*	*.000*
	Tangibility	*.376*	*.088*	*.364*	*1.033*	*.000*
a. Dependent Variable: Loyalty						
Model		*Unstandardized Coefficients*		*Standardized Coefficients*	*t*	*Sig.*
		B	*Std. Error*	*Beta*		
1	*(Constant)*	*.811*	*.703*		*1.154*	*.000*
	Reliability	*.543*	*.069*	*.400*	*7.869*	*.000*
	Assurance	*.202*	*.098*	*.181*	*2.061*	*.000*
	Responsiveness	*.196*	*.090*	*.231*	*5.525*	*.000*
	Empathy	*.058*	*.054*	*.097*	*1.074*	*.000*
	Tangibility	*.084*	*.073*	*.119*	*1.151*	*.000*
a. Dependent Variable: Customer retention						
Model		*Unstandardized Coefficients*		*Standardized Coefficients*	*t*	*Sig.*
		B	*Std. Error*	*Beta*		
1	*(Constant)*	*.584*	*.404*		*1.445*	*.000*
	Reliability	*.370*	*.040*	*.387*	*9.25*	*.000*
	Assurance	*.020*	*.056*	*.021*	*.357*	*.000*
	Responsiveness	*.093*	*.052*	*.112*	*1.788*	*.000*
	Empathy	*.038*	*.031*	*.074*	*1.225*	*.000*
	Tangibility	*.463*	*.071*	*.461*	*6.521*	*.000*
a. Dependent Variable: Performance						
Model		*Unstandardized Coefficients*		*Standardized Coefficients*	*t*	*Sig.*
		B	*Std. Error*	*Beta*		
1	*(Constant)*	*.918*	*.896*		*1.025*	*.000*
	Reliability	*.066*	*.088*	*.034*	*3.088*	*.002*
	Assurance	*.383*	*.124*	*.397*	*6.292*	*.000*
	Responsiveness	*.179*	*.114*	*.180*	*1.566*	*.001*
	Empathy	*.164*	*.069*	*.174*	*2.373*	*.002*
	Tangibility	*.379*	*.157*	*.378*	*2.414*	*.000*
a. Dependent Variable: Commitment						

Source: Own Survey

As indicated on the above table, the researcher has very strong evidence to reject the null hypotheses developed in chapter one, and accept the alternative hypotheses, since the p-value is statically significant, (less than .05). As a result shown, Reliability, Assurance, Responsiveness, Empathy and Tangibility have statistically significant to predict the customer satisfaction metrics of commercial bank of Ethiopia Yeka district some selected branches, namely: Loyalty, Customer retention, Performance and Commitment because p-value is statically significant, (less than .05).

Standardized Coefficients β

The standardized coefficients are useful to know which of the electronic service quality has more impact on customer satisfaction metrics of commercial bank of Ethiopia Yeka district some selected branches. It used for

comparing the impact of electronic service quality mentioned in the model on customer satisfaction metrics of commercial bank of Ethiopia Yeka district some selected branches.

Besides the above regression coefficients table, among the five variables these are identified as predictors, Reliability is the largest contributor for change of Loyalty with a beta coefficient of .463, followed by Tangibility with beta coefficients of.364, Responsiveness with beta coefficients of .300, Empathy with beta coefficients of .140 and Assurance with beta coefficients of .115. In the same way, Reliability is the largest contributor for change of *Customer retention* with a beta coefficient of .400, followed by Responsiveness with beta coefficients of .231, Assurance with beta coefficients of .181, Tangibility with beta coefficients of .119 and Empathy with beta coefficients of .097.

Then also, Tangibility is the largest contributor for change of *Performance* with a beta coefficient of .461 followed by Reliability with a beta coefficient of .387, Responsiveness with beta coefficients of.112, Empathy with beta coefficients of .074 and Assurance with beta coefficients of .021. Lastly as regression coefficients table shown, an Assurance is the largest contributor for change of commitment with beta coefficients of.397 Followed by Tangibility with a beta coefficient of .378, Responsiveness with beta coefficients of .180, Empathy with beta coefficients of .174 and Reliability with a beta coefficient of .034.

Unstandardized Coefficients β

The unstandardized coefficient denotes the mean or average changes in customer satisfaction metrics of commercial bank of Ethiopia Yeka district some selected branches with a unit change in the electronic service quality mentioned in the model as independent variables.

The regression equation between electronic service quality and customer satisfaction metrics of commercial bank of Ethiopia Yeka district some selected branches can be written as follows:

Lo = β0 + β1RL + β2AS + β3RS+ β4EM β5TA + ϵ

LO= .845 + .382RL + .078AS + .210RS+ .132EM +.376TA + .22727

CR = β0 + β1RL + β2AS + β3RS+ β4EM β5TA + ϵ

CR= .811+ .543RL + .202AS + .196RS+ .058EM .084TA + .31602

PER = β0 + β1RL + β2AS + β3RS+ β4EM β5TA + ϵ

PER=.584 + .370RL + .020AS + .093RS+ .038EM + .463TA + .18173

COM = β0 + β1RL + β2AS + β3RS+ β4EM β5TA + ϵ

COM= .918 + .066RL + .383AS + .179RS+ .164EM +.379TA + .40303

- Where; Lo = Loyalty, CR = Customer retention, PER= Performance & COM = Commitment, which are customer satisfaction of metrics commercial bank of Ethiopia Yeka district some selected branches (used as dependent variable in this study)

- Where; RL= Reliability, AS= , Assurance, RES= Responsiveness, EM= Empathy & TA= Tangibility, which are component of electronic service quality (used as independent variable in this study)

Overall, the constant value (β0) shows that the customer satisfaction metrics of commercial bank of Ethiopia Yeka district some selected branches would be if components of electronic service quality mentioned as independent variables in the model were zero. On the other hand, a beta coefficient of electronic service quality components (Reliability, Assurance, Responsiveness, Empathy & Tangibility) indicates that a unit change in those will leads to change the customer satisfaction metrics of commercial bank of Ethiopia Yeka district some selected branches (Loyalty, Customer retention, Performance and Commitment) by amount of beta coefficient respectively.

4.6.3 Electronic banking service quality effects on overall customer satisfaction

Under this section, linear regression was employed to determine how much the independent variables (**Electronic banking service quality**) explain the dependent variable which is metrics of **customer satisfaction** (Loyalty, Customer retention, performance and commitment). Accordingly, the result of the regression was presented in the table as follows:

Table4.18 Regression analysis model summary between Inventory management and overall organizational performances

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.717[a]	.515	.512	.19856

a. Predictors: (Constant), Electronic banking service quality perspective

b. *Dependent variable: customer satisfaction*

Source: Own Survey

As indicated in the above model summary table, model summary table, the "R" column represents the value of R, the multiple correlation coefficients. R value of .717 indicates strong correlation between Electronic banking service quality components and overall organizational *customer satisfaction* of commercial bank of Ethiopia Yeka district some selected branches which shows a good level of prediction.

As well, "R Square" column represents the R Square value (coefficient of determination), which is the proportion of variance on the overall *customer satisfaction* of commercial bank of Ethiopia Yeka district some selected branches that can be explained by the set Electronic banking service quality components. As shown from the above table, R Square value of .515 indicates that 51.5% of the variation on the overall *customer satisfaction* of commercial bank of Ethiopia Yeka district some selected branches can be explained by the set of Electronic banking service quality components included in the model. This means that remaining 49.5% of the variation in on overall customer satisfaction explained by other factors.

Adjusted R-squared provides an adjustment to the R-squared statistic such that; the set Electronic banking service quality has a correlation to customer satisfaction metrics of commercial bank of Ethiopia Yeka district some selected branches increases adjusted R-squared and any set Electronic banking service quality without a correlation will make adjusted R-squared decrease. As shown from the above table, the value of Adjusted R-Square of all the three variables is .512, indicates that 51.2% variability of overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches is accounted for by Electronic banking service quality stated in the model.

Table4.19 ANOVA model fit

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.614	1	7.614	193.103	.000[b]
	Residual	7.176	182	.039		
	Total	14.789	183			

a. Dependent Variable: customer satisfaction survey

b. Predictors: (Constant), Electronic banking service quality perspective

Source: Own Survey

The ANOVA table helps to test whether the overall regression model (the above model summary) is a good fit for the data. Accordingly, the set of Electronic banking service quality mentioned in the model statistically significant to predict the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches at $F = 193.103$, $p < .001$, As a result, this study sum up that the regression model is a good fit of the data.

Table4.20 Regression coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.742	.000		.733	000		
	Reliability	.165	.025	.178	18.545	.000	.882	1.134
	Assurance	.271	.035	.218	7.663	.000	.298	3.357
	Responsiveness	.169	.032	.189	11.374	.000	.378	2.646
	Empathy	.133	.000	.149	.476	.000	.776	9.100
	Tangibility	.206	.045	.204	6.871	.000	.700	1.429

a. Dependent Variable: customer satisfaction survey

Source: Own Survey

To remind, null hypotheses were developed in chapter one, mean that; the set of Electronic banking service quality which mentioned in the model have no explanatory power on customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches. This means the entire coefficients of Electronic banking service quality mentioned in the model as the independent variables are zero or none of the Electronic banking

service quality mentioned in the model help to predict the customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches. However, Based on the above tables, the researcher has very strong evidence to reject the null hypotheses (H1, H2, H3, H4 and H5), and accept the alternative hypotheses, since the p-value is statically significant, (less than .05), and summarize that Electronic banking service quality mentioned as independents variable in the model, namely; Reliability, Assurance, Responsiveness, Empathy and Tangibility have statistically significant to predict the customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches.

Standardized Coefficients β

The standardized coefficients are useful to know which of Electronic banking service quality has more impact on the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches. It used for comparing the impact of Electronic banking service quality mentioned in the model on the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches.

Besides the above regression coefficients table, among the five variables these are identified as predictors, Assurance is the largest contributor for change of overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches with a beta coefficient of .218. Tangibility is the second with beta coefficients of .204, Responsiveness is the third with beta coefficients of .189, Reliability is the fourth with beta coefficients of .178 and it followed by Empathy with beta coefficients of .149

Unstandardized Coefficients β

The unstandardized coefficient denotes the mean or average changes in overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches with a unit change in the Electronic banking service quality mentioned in the model as independent variables.

The regression equation between the Electronic banking service quality metrics and customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches can be written as follows:

$CS = \beta 0 + \beta 1RL + \beta 2AS + \beta 3RS + \beta 4EM\ \beta 5TA + \epsilon$

CS =.742+ .165RL + .271AS + .169RS+ .133EM +.206TA +.19856

- Where; CS = customer satisfaction, in case of commercial bank of Ethiopia Yeka district some selected branches (used as dependent variable in this study)

- Where; RL= Reliability, AS= Assurance, RES= Responsiveness, EM= Empathy & TA= Tangibility, which are component of Electronic banking service quality (used as independent variable in this study) Overall, the constant value (β0 =.742), shows that the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches would be .742, if inventory management mentioned as independent variables in the model were zero. On the other hand, a beta coefficient of .165indicates that, a unit change in Reliability leads to a change in the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches by .165, a unit change in Assurance leads to a change in the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches by .271, a unit change in Responsiveness leads to a change in the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches by .169, a unit change in Empathy leads to a change in the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches by .133, and a unit change in Tangibility leads to .206 growths in the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches.

4.7 Hypotheses result discussion

Hypothesis 1: Initially, the researcher has hypothesized that there is no effect of Electronic banking service quality on customers' satisfaction towards commercial bank of Ethiopia Yeka district some selected branches. And the finding of this study indicates that Reliability, Assurance, Responsiveness, Empathy and Tangibility have statistically significant positive effects on Loyalty commercial bank of Ethiopia Yeka district some selected branches. Thus, **H1a, H1b & H1c have been rejected.** .

Hypothesis 2: the researcher hypothesized that of Electronic banking service quality haven't statistically significant effects on customer retention towards commercial bank of Ethiopia Yeka district some selected branches. As of the results**,** Reliability, Assurance, Responsiveness, Empathy and Tangibility have statistically significant positive effects on customer retention towards commercial bank of Ethiopia Yeka district some selected branches. Consequently **H2a, H2b & H2c** have been rejected.

Hypothesis 3: referring that Electronic banking service quality haven't statistically significant effects on performance towards commercial bank of Ethiopia Yeka district some selected branches. The result from this study confirms that Reliability, Assurance, Responsiveness, Empathy and Tangibility have statistically

significant positive effects on performance towards commercial bank of Ethiopia Yeka district some selected branches. Accordingly, **H3a, H3b& H3c** have been rejected.

Hypothesis 4: revealed that Electronic banking service quality haven't statistically significant effects on commitment commercial bank of Ethiopia Yeka district some selected branches. But the result of this study confirms that Reliability, Assurance, Responsiveness, Empathy and Tangibility have statistically significant positive effects on ccommitment towards commercial bank of Ethiopia Yeka district some selected branches. Therefore, **H4a, H4b& H4c** have been rejected.

To sum up, from the summary result tables, basic research question stated in chapter one, or hypotheses which were developed in chapter two were tested. The result from this study is summarized in the table below.

Table 4. 21 Summary of result

Path	Hypothesis	Type of Hypothesis	B	P <0.05	Remark
RE → LO	H1a	Null Hypothesis	*.382*	000**	Rejected
AS → LO	H1b	Null Hypothesis	*.078*	000**	Rejected
RES → LO	H1c	Null Hypothesis	*.210*	*.001***	Rejected
EM → LO	H1d	Null Hypothesis	*.132*	000**	Rejected
TA → LO	H1e	Null Hypothesis	*.376*	000**	Rejected
RE → CR	H2a	Null Hypothesis	*.543*	.000**	Rejected
AS → CR	H2b	Null Hypothesis	*.202*	.000**	Rejected
RES → CR	H2c	Null Hypothesis	*.196*	.000**	Rejected
EM → CR	H2d	Null Hypothesis	*.058*	.000**	Rejected
TA → CR	H2e	Null Hypothesis	*.084*	.000**	Rejected
RE → PER	H3a	Null Hypothesis	*.370*	.000**	Rejected
AS → PER	H4b	Null Hypothesis	*.020*	.000**	Rejected
RES → PER	H4c	Null Hypothesis	*.093*	.044**	Rejected
EM → PER	H4d	Null Hypothesis	*.038*	.000**	Rejected
TA → PER	H4de	Null Hypothesis	*.463*	000**	Rejected
RE → COM	H5a	Null Hypothesis	*.066*	*.002*	Rejected
AS → COM	H5b	Null Hypothesis	*.383*	*.000*	Rejected
RES → COM	H5c	Null Hypothesis	*.179*	*.001*	Rejected
EM → COM	H5d	Null Hypothesis	*.164*	*.002*	Rejected
TA → COM	H5e	Null Hypothesis	*.379*	*.000*	Rejected
Overall summary of results					
RE → CSS		Null Hypothesis	.165	.000**	Rejected
AS → CS		Null Hypothesis	.271	.000**	Rejected
RES → CS		Null Hypothesis	.169	.000**	Rejected
EM → CS		Null Hypothesis	.133	.000**	Rejected
TA → CS		Null Hypothesis	.206	.000**	Rejected

Source: Own Survey

4.8 Interview Responses

Interview was forwarded for the three branch managers had been participated in the interview concerning the electronic banking service quality and customer satisfaction and others are presented here to triangulate with customers responses.

- Manager of Salite mihret branch said that Currently, CBE utilized online banking such as Mobile Banking and internet banking. Accordingly to the Manager at Salite mihret branch, most of the users of online banking are mobile banking users. Customers expect responsive online banking service and the bank aims to enhance level of satisfaction. While most customers are content with online banking, challenges like network failures from the country's telecom provider and internal network issues persist, leading to customer dissatisfaction. Efforts are in place to address these service quality issues and improve digital culture awareness.

- Manager of Ayata Adebabay branch mentions that despite offering online banking including mobile banking and internet banking, customers complain about frequent service interruptions causing a loss of trust on the service. To address this, the bank provides phone support for customers facing disruptions, aiming to improve satisfaction level. Although customers appreciate the 24/7 availability and quick service provided by technology, issues like telecoms network failures sometimes lead to service delivery problems, impacting customer experience negatively.

- Koteba branch manager highlights the bank focus on leading-edge technology in core banking applications, facilitating the introduction of online banking service like mobile banking and internet banking. Despite efforts to enhance customer access through technology expansion, challenges persist related to customer's digital culture readiness for reliable service. Customer feedback often cites network failures from ethio-telecom, power interruption and low level of basic ICT literacy as cause for online banking transaction. To address such service interruptions, the bank uses a wireless EV-DO internet connection alongside ethio telecom, ensuring manual intervention by standby Bank's technicians.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of finding

The result of the study provides insight on the effects of electronic banking service quality on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches. Besides, the summary of the research finding was presented as follows.

First of all, descriptive statistical analysis was computed to know the extent of effects of electronic banking service quality on customer satisfaction in the case of commercial bank of Ethiopia Yeka district some selected branches. Accordingly, as the descriptive statistical analysis results of overall/grand mean score shown,

- Reliability (M=4.0380, SD=.35922), Assurance (M=3.7264 ,SD=.43877),Responsiveness (M=3.8043, SD=.42365), Empathy (M=3.5870, SD=.81779) and Tangibility (M=3.9565, SD=.22700). This means all electronic banking service quality mentioned in the model was occasionally practiced in commercial bank of Ethiopia Yeka district some selected branches.

Then after, Pearson correlation coefficient was used to determine the relationship between the set of electronic banking service quality mentioned in the model as independent variable and customer satisfaction metrics as well as overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches, used as dependent variable in this study. Accordingly, as the Pearson correlation analysis result shown that;

- Reliability has statistically a strong positive association with overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches with Pearson correlation coefficient value $r=.697^{**}$, $p<0.01$. Whereas, Responsiveness, Tangibility, Empathy and Assurance has statistically a moderate

positive association with overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches with Pearson correlation coefficient value r=637**, p<0.01, r=.511**, p<0.01, r=.457**, p<0.01 and r=.027**, p<0.01 respectively.

Finally, multiple regression analysis was employed to explore coefficients of determination of electronic banking service quality on customer satisfaction metrics and overall performance of commercial bank of Ethiopia Yeka district some selected branches. Accordingly, as multiple regression analysis result shown that;

As the models summary induced:

❖ the values of R, (multiple correlation coefficients) are .655, .769, .906 and .818 respectively which indicates that inventory management have statistically a positive strong correlation with Loyalty, Customer retention, Performance and Commitment of commercial bank of Ethiopia Yeka district some selected branches respectively.

❖ The R Square values (coefficients of determination), are .429, .591, .822 and .669 respectively, which indicate the proportion of variance in the set customer satisfaction metrics that can be explained by the set electronic service quality as stated respectively on the model. Accordingly, as the model induced, 42.9% Loyalty, 59.1%Customer retention, 82.2% Performance and 66.9 % Commitment variations of commercial bank of Ethiopia Yeka district some selected branches can be explained by set of electronic service quality mentioned in the model.

❖ adjusted R-squared provides an adjustment to the R-squared statistic such that; the set electronic service quality has a correlation to customer satisfaction metrics of case companies increases adjusted R-squared and any set electronic service quality without a correlation will make adjusted R-squared decrease. Therefore, adjusted R-squared is more preferred for goodness of prediction than R-squared, According to adjusted R-squared, 41.3% Loyalty, 58% Customer retention, 81.7 % Performance and 65.9% Commitment variations of commercial bank of Ethiopia Yeka district some selected branches can explained by the combined effect of all the predictor variables mentioned in the models.

❖ the set of Electronic banking service quality mentioned in the model statistically significant to predict the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches at $F = 193.103$, $p < .001$, As a result, this study sum up that the regression model is a good fit of the data.

As the ANOVA test result revealed:

❖ Reliability, Assurance, Responsiveness, Empathy and Tangibility have statistically significant to predict the customer satisfaction metrics of commercial bank of Ethiopia Yeka district some selected branches, namely: Loyalty, Customer retention, Performance and Commitment because p-value is statically significant, (less than .05). Accordingly, the set of electronic service quality mentioned in the model statistically significant to predict the metrics of customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches at $F = 26.751$, $p < .001$, $F = 51.502$, $p < .001$, $F = 163.895$, $p < .001$ and $F = 71.802$, $p < .001$ respectively as mentioned in the above ANOVA table . As a result, this study sum up that the regression model is a good fit of the data,

As the regression coefficients result revealed:

❖ Reliability is the largest contributor for change of Loyalty with a beta coefficient of .463, followed by Tangibility with beta coefficients of.364, Responsiveness with beta coefficients of .300, Empathy with beta coefficients of .140 and Assurance with beta coefficients of .115.

❖ In the same way, Reliability is the largest contributor for change of Customer retention with a beta coefficient of .400, followed by Responsiveness with beta coefficients of .231, Assurance with beta coefficients of .181, Tangibility with beta coefficients of .119 and Empathy with beta coefficients of .097.

❖ Then also, Tangibility is the largest contributor for change of Performance with a beta coefficient of .461 followed by Reliability with a beta coefficient of .387, Responsiveness with beta coefficients of.112, Empathy with beta coefficients of .074 and Assurance with beta coefficients of .021.

❖ Lastly as regression coefficients table shown, an Assurance is the largest contributor for change of commitment with beta coefficients of.397 Followed by Tangibility with a beta coefficient of .378, Responsiveness with beta coefficients of .180, Empathy with beta coefficients of .174 and Reliability with a beta coefficient of .034.

❖ In general Besides the regression coefficients result, among the five variables these are identified as predictors, Assurance is the largest contributor for change of overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches with a beta coefficient of .218. Tangibility is the second with beta coefficients of .204, Responsiveness is the third with beta coefficients of .189, Reliability is the fourth with beta coefficients of .178 and it followed by Empathy with beta coefficients of .149

❖ In addition, the constant value (β0 =.742), shows that the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches would be .742, if inventory management mentioned as independent variables in the model were zero. On the other hand, a beta coefficient of .165indicates that, a unit change in Reliability leads to a change in the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches by .165, a unit change in Assurance leads to a change in the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches by .271, a unit change in Responsiveness leads to a change in the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches by .169, a unit change in Empathy leads to a change in the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches by .133, and a unit change in Tangibility leads to .206 growths in the overall customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches.

5.2 Conclusions

However based on the objectives, research question and finding of the study the researcher drawn the following conclusion:-

The main aim of this study was to critically examine the effects of electronic banking service quality primarily Reliability, Assurance, Responsiveness, Empathy and Tangibility on customer satisfaction in commercial bank of Ethiopia. Based on the research objective and results of the study the researcher has drawn the following conclusions.

As can be apparent from the analysis, the dominant dimension of electronic banking service quality of CBE is Reliability with a mean score of 4.0380 followed by Tangibility with a mean score of 3.9565. Responsiveness, Assurance and Empathy followed in the pecking order with a mean score of 3.8043, 3.7264 and 3.5870 respectively. Reliability is dominated dimensions of electronic banking service quality means the respondents have digital culture; they perceived the use of electronic banking with an attitude of getting anytime and anywhere.

The results of the study also established that the effect of electronic banking service quality on customer satisfaction is positive and significant. This result infers that when there is Reliability, Assurance, Responsiveness, Empathy and Tangibility electronic banking service quality in the bank, customer satisfaction level increases.

The results of the study confirmed that the effect of electronic banking service quality on customer satisfaction is positive and significant. The results of the study recognized that commercial bank of Ethiopia online banking user's customers have a strong perception and give more value for electronic banking service. This result depicted that when there is a favorable electronic banking service quality change in the bank, over all metrics of customer satisfaction level will increase.

Finally there was statistically a strong, a moderate and a weak positive significant relationship between set of electronic service quality mentioned in the model and the metrics of customer satisfaction of commercial bank of Ethiopia Yeka district some selected branches.

The quantitative analysis result of the study supported by branch manager interview responses commercial bank online banking customers suffer from frequent disruption of online banking due to poorly developed telecommunication infrastructure, lack of reliable power supply, and internal network problems.

5.3 Recommendations

Based on the findings and conclusions drawn from the project work on the effect electronic banking service quality on customer satisfaction within the Commercial Bank of Ethiopia in Yeka District, the following recommendations can be made:

- As Reliability, Assurance, Responsiveness, Empathy and Tangibility dimensions of electronic banking service quality are highly significant impacts on the level of satisfaction, commercial bank of Ethiopia Address Network Failures and Internet Penetration Issues the bank should focus on improving network reliability, enhancing internet penetration, and ensuring a stable online banking environment to minimize disruptions and enhance customer experience.
- The bank should emphasize on enhancing the overall service quality of electronic banking, including user-friendly interfaces, efficient customer support, and secure transactions to improve customer satisfaction and digital culture adoption
- The bank should collaborate with government entities such as Ethio-Telecom, Ethiopian Electric Power, and the National Bank of Ethiopia is essential to address infrastructural challenges, improve service delivery, and foster a conducive environment for online banking growth.
- Currently CBE is on the progress like tasks to improve electronic banking service quality and assure its efficiency and effectiveness. Thus the digital culture of the customer become an increasing at increasing rate as well, the bank should enhancing trust and security, make is easy, improve speed, provide error free online banking and provide support for the customer.
- Create Customer Education and Awareness Programs like Conducting educational campaigns to increase awareness among customers about the benefits and functionalities of online banking, addressing concerns related to security, ease of use, and usefulness to promote its adoption and also through different forms of media advertising such as brochures, web pages etc for improving the trust worthiness reputation of bank.
- Commercial Bank of Ethiopia should Strengthen Internal Capacity by investing in strengthening its internal technological capabilities to ensure the seamless operation of online banking services and provide consistent support to customers
- Commercial bank of Ethiopia should provide Continuous Monitoring and Evaluation activities by Implement mechanisms for continuous monitoring and evaluation of online banking services, customer feedback, and digital culture trends to adapt and improve services based on evolving customer needs and preferences.
- Invest in Training Programs by Provide training programs for both customers and staff to enhance digital literacy, promote technological adoption, and ensure a seamless transition towards a digital banking culture within the organization and among customers
- CBE should Implement Digital Culture Enhancement Strategies by Develop strategies to cultivate a positive digital culture within the bank, fostering a mindset of convenience, accessibility, and innovation among employees and customers to drive utilization of online banking services.
- By implementing these recommendations, the Commercial Bank of Ethiopia in the Yeka District can enhance its electronic banking services quality, improve customer satisfaction, and foster a digital culture that facilitates the adoption and electronic banking service quality solutions, ultimately leading to a more efficient and customer-centric banking experience.

5.4 Limitations and Directions for Future Research

There were limitations in to this study that should be considered when interpreting the study results. These limitations are left for future researchers**.**

- This study was focused on Reliability, Assurance, Responsiveness, Empathy and Tangibility as an independent variable, but there are several electronic banking service quality dimensions. Thus further research on other electronic banking service quality dimensions should also be done.
- This research is undertaken only in commercial bank of Ethiopia Yeka district with a relatively small sample size and it did in three branches of Yeka district. So as to get an all-inclusive respondents and branches and generalizations of the findings, forthcoming research can be performed with a relatively larger sample size that should be taken from other Commercial Bank of Ethiopia districts customers and representation of employees on the effect of electronic banking service on customer satisfaction.

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