E-Banking Service Quality and Its Impact on Customer Satisfaction in State Owned Banks in East Gojjam Zone Ethiopia

Simon Nahusenay Ejigu

Lecturer, Department of Banking and Finance, College of Business and Economics,
Debre Markos University, Debre Markos, Ethiopia

Abstract
This study aimed to examine the effect of E-Banking service quality on customer satisfaction in the state owned banks in Ethiopia in Debre Markos town. To achieve the objectives of this study, data were collected through questionnaire from a sample of 190 bank customers. These respondents were selected using simple stratified sampling method from both Woreda and zonal level E-Banking users. The data collected from the questionnaire were analyzed using Statistical tools such as mean, standard deviation, correlation, and multiple regression analysis using SPSS version 20. The results of this study indicated that, except assurance the four service quality dimensions (tangibility, reliability, responsiveness and empathy) have positive and significant effect on customer satisfaction. The finding of this study also indicates that customers were most satisfied with the responsiveness dimensions of E-Banking service quality. Furthermore, the E-Banking service quality dimensions (tangibility, reliability, responsiveness and empathy) significantly explain 79.2% of the variations in the level of customer satisfaction in state owned banks. Based on the findings of the study, it is advisable to the management of the bank to pay attention for training and developing staffs' skill in using E-Banking services in addition to installing the E-Banking in appropriate place accessible places.
Keywords: state owned banks, E-banking, service quality, customer satisfaction, Ethiopia

1. INTRODUCTION
1.1. Background of the study
Services are an important segment of all economies and have become an important part of our daily lives. In the service sector, technology has been used to standardize service by reducing the employee/ customer interface (Quinn, 1996).

"Financial services" particularly banks are competing in similar products therefore services quality grows to be a main competitive weapon (Stafford; 1996). Due to pervasive and steady growth of information and communication technology, the world banking form of competition supported by modern information and communication infrastructure.

Most consumers now prefer technology based service delivery such as ATM, mobile banking, internet banking and SMS that offered by employees. Automated teller machine is a self-service technology device that is used by banks for financial service delivery. It can also be describe as an electronic computerized telecommunications device that provides the clients of a financial institution with access to financial transactions in a public space without the need for a cashier, human clerk or bank teller customers can access their bank accounts in order to make cash withdrawals, check their account balances as well as purchase prepaid cell phone credit whiles using an E-Banking. (http://en.wikipedia.org/wiki/Automated_teller_machine).

Customer satisfaction is the major issue for the business that is operating in technology based services and related services. Good customer service quality is the main factor that will determine; in the future whether the business will survive or fail (Thompson &Bokma 2000).

Due to rapid technology change and market competition service quality becomes an increasingly important issue .Therefore understanding a service quality issue becomes very important to satisfy the customer (Broderick& Vachirapornpuk 2002)

Information and communication applications are paramount concerns to the banks in today's business environment and internet has become a major platform for all financial, banking and commercial service to their customers with advanced software technology but they are suffering with security issues. E-Banking is an unattended electronic machine in a public place connected to a data system and related equipment activated by a bank customer to obtain cash withdrawal and other banking services.

An automated teller machine allows a bank customer to conduct their banking transactions from almost every other e-banking in the world. The developments of technologies have enabled organizations to provide superior services for customers' satisfaction (Surjadjaja et al., 2003).

The availability of several e-banking countries wide has greatly improved the quality and convenience of service delivery however researchers have stated that users' satisfaction is an essential determinant of success of the technology-based delivery channels (Tong, 2009; Wu & Wang, 2007).

Today, Ethiopian banks are facing challenges with stiff competition. Hence, delivering quality service with in new technology and creating customer satisfaction will be expected of them to win this competition.

Despite the e-banking of state owned banks bringing with many positive aspects, there are a number of factors that are constraints in the quality of the E-banking technology. Therefore, this research will assess the effectiveness of e-banking service quality in the state owned banks in Ethiopia.

1.2. Statement of the problem
Since we live in a caustic and globalization world most customers want to technology based service this essential specially for banking industries. Today, information systems provide the communication and analytic power that firms need to conduct trade and manage businesses on a global scale. Controlling the far-away global corporation communicating with distributors and suppliers, operating 24 hours a day in different national environments, coordinating global work teams, and servicing local and international reporting needs is a major business challenge that requires powerful information system response (Laudon, 1974; Davis and Olson, 1985).

Globalization and information technology also bring new threats to domestic business firms: Because of global communication and management systems, customers now can shop in a worldwide marketplace, obtaining price and quality information reliably 24 hours a day. To become competitive participants in international markets, firms need powerful information and communication systems. ICT has provided new products and value added services to be delivered using the same electronic infrastructure (Abor,2004).In order to remain competitive edge most companies invest a lot of money in modern ICT infrastructure.

A number of studies conclude that ICT has applicable positive effects on banks productivity, banking hall transaction, bank service delivery (Balachander et al,2001,Yasuhru,2003).

E-Banking is a computerized telecommunication device that provides the customer of a financial institution with access to 24 hours a day 7days a week financial transactions in a public space without the need of a human clerk or bank teller. The customer is identified by inserting a plastic E-Banking card with a magnetic strip or a plastic smart card with a chip that contains a unique card number and some security information such as the expiration date.

Even though the state owned banks in Ethiopia is taking advantage of the technological advancements and introducing automated teller machines, there is a general outcry from the state owned banks in Ethiopia especially at the end of the month. Today, banks are faced with stiff competition, hence giving technology based service with delivering quality service and creating customer satisfaction is expected to win this competition.

Although a few studies were conducted with banks related with customer satisfaction until now there is no researched conducted with on the effectiveness of e-banking service quality delivery on customer satisfaction at state owned banks in Ethiopia context. so it become important for banks to assess the effectiveness of e-banking banking service quality based on customers satisfaction. in general the study aims to answer the following basic questions.

1. What influence do the e-banking service quality dimensions have on customer satisfaction in state owned banks?
2. What is the customers' level of satisfaction with the e-banking service quality dimensions in state owned banks?
3. Which e-banking service quality dimension dominantly and significantly affects customer satisfaction in state owned banks?

1.3. Objectives of the study
The main objective of this study is to examine the effect of e-banking service quality on customer satisfaction in the state owned banks in Ethiopia.

1. to examine the effect of tangibility on customer satisfaction of state owned banks e-banking   service users
2. to determine the effect of reliability on customer satisfaction of state owned banks e-banking   service users
3. to determine the effect of responsiveness on customer satisfaction of state owned banks e-banking service users
4. to identify the effect of assurance on customer satisfaction of state owned banks e-banking service users
5. to determine the effect of empathy on customer satisfaction of state owned banks e-banking   service users

1.4. Theoretical Framework
Many writers define 'service' in different ways: for example kottler; 2003;128 defined service as "any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product". Any intangible actions that are performed by person or machines or both to create good perception within users called service. Although services are performed by service providers and consumer together its quality results in perception and value assessment by

the customer (Rao; 2007).

During recent years technology has become one of the key aspects for the organizations to deliver their services. Customers can choose between varieties of technological options to perform services for themselves (Zinn 1993). At the same time, companies employ technology at various stages in the service delivery process and in services support operations to improve the quality and productivity of their service offering (Blumberg 1994).

Advances in the technology had given new dimensions, internet permitted to access wide range of self-service technologies (like e-banking, Internet banking, E-shopping, Online auctions, etc..,). As these technological aspects are spreading over, moreover companies are also interested to employ these technological dimensions because of potential cost savings and delivering the products in an effective way will make big difference in increasing sales growth, as well as to win the competition and also to make the customer satisfied with the offerings.

Present day E-banking offer various services which include primarily withdrawals, deposits, checking of accounts balances and most recently accepting and processing cheques. Most them are connected to interbank networks enabling people to transact from machines not belonging to the bank where they have their accounts or in the countries where their accounts are held(enabling transactions outside local countries).

In today's increasingly competitive business environment, service quality is essential for the success of any organization. Service quality is important aspect that affects the Competitiveness of business. Banks should increase the quality of service constantly since there is no assurance that the current outstanding service is also suitable for future. Consequently, banks should "develop new strategy" to satisfy their customer and should provide quality service to distinguish themselves from rivalries (Siddiqi; 2011).

Garvin (1987) summarized the literature on the quality of physical goods and identified eight distinct dimensions of product quality. These are: performance, features, reliability, durability, serviceability, conformance, aesthetics and perceived quality .Although he takes a technical orientation in his dimensions and only slightly considers the customer. Service quality is the most often related to a customer's perception and satisfaction.

Theoretically customers' perception of service consists of two dimensions. Berry and parasuraman (1991) distinguish a process and an outcome dimension. Of the five dimensions of quality, reliability is primarily concerned with the service outcome, whereas the rest are primarily concerned with the service process. However, all five dimensions emphasize the customer's perception of the service (functional quality) rather than the service provider's view of how the service should be delivered (technical quality). Gronroos (1990) however makes a distinction between functional and Technical quality. The process of functional quality refers to how the service is delivered whereas technical quality which is an outcome refers to what customers receive (the benefits of using the service). In the case of the e-banking , how cash is processed is a functional benefit whereas effectiveness, less time spent on an AMT, easy to use and efficiency over the traditional methods are known as technical benefit.

Most customers are unable to assess technical quality due to lack of technical knowledge which makes functional quality all the more important. Some problems connected to e-banking faults may require the attention of either the service provider, the bank or the communications company to intervenes whereas the customer may view the problem differently due to the lack of adequate knowledge on the operations of an e-banking .

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

Dimensions of e-banking Service Quality

Parasuraman, Berry and Zeithaml (1988) categorized service quality into five dimensions namely: reliability, tangibles, responsiveness, assurance, empathy whose descriptions are defined below. In the case of the e-banking service, the dimensions of service quality can be relayed as follows:

Reliability: The ability to perform the promised service dependably and accurately. This relates to the ability to provide a service as expected by customers in terms of speed (how quick the Transaction is performed), accuracy (how correct the transaction is in terms of money withdrawn) and if the equipment is operational 24 hours as expected.

Looking at the operations of the e-banking in state owned banks reliability is one aspect that brings up a lot of outcry from the customers. In some cases the e-banking are usually offline due to unreliable communications which results in long queues. At times the e-banking run out of cash especially during the month ends when a lot of civil servants customers want to access their accounts. slow response by service providers in repairing faulty e-banking also results in unreliable service. However, the e-banking in other instances perform to expectations and beyond.

Tangibles: The appearance of physical facilities, equipment, personnel and communication materials. This relates to physical appearance of the e-banking. It should be appealing to the customer and should be brightly lit at night. The surroundings should be maintained clean by way of banks providing waste bins for litter generated from receipts. The personnel that provide guidance to the customers should also look presentable.

Responsiveness: The willingness to help customers and to provide prompt service. The may refer to the help customers get when they bring forward E-banking complaints such as accounts being debited at the same time money has not been dispensed, cards being captured underpayment, lack of certain currency denominations, no receipts being issued and situations where the e-banking is out of service for very long hours and at times days. This is another area which needs attention as customers feel the service is below their expectation.

Assurance: the knowledge and courtesy of employees and their ability to convey trust and confidence. The service provider should have staff who are knowledgeable on the operations of the e-banking so as to convey confidence in the customer even when thing are bad. in case of the e-banking having a major technical fault, which could take days to correct, the bank should be able to convey the message to customers in a manner that will generate confidence. another way of generating confidence is by making sure that the e-banking is in good working condition most of the time and especially during peak periods when the civil servant takes their salary from state owned banks week – ends, public holidays and festive periods.

Empathy: The provision of caring, individualized attention to customers. This brings out the issue on whether the banks care as they should for customers using the e-banking. there are times when the e-banking s are completely down and customers are left stranded and the end result are complaints that the banks do not care. However, there have been instances when the bank has selected to open doors to the customers way beyond the normal banking hours just to provide for their customer's needs. This is in a situation where their e-banking are unable to provide a service to the customer and this is at the discretion of the bank.

Customer Satisfaction

Kotler (1997:40) defines satisfaction as a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance or outcome in relation to his or her expectations. Satisfaction can therefore be taken as a function of perceived performance and expectations. Heskett, Sasser Jr and Hart (1990:88) pointed out that total customer satisfaction is the highest form of service quality increased competition and consumer demand for quality have compelled corporations to devote much of their market research budgets to studies of customer satisfaction. The performance of a financial service institution is driven largely by its ability to attract and retain customers who have a wide range of alternatives to choose from.

1.5. Empirical Reviews

Munusamy et al., (2010) conducted a study to assess Service quality delivery and its impact on customer satisfaction in the banking sector in Malaysia. The study uses the five dimensions of service quality (tangibility, reliability, responsiveness, assurance and empathy). The result of the study showed that the three service quality dimensions (assurance, empathy, and responsiveness) have positive and insignificant effect on customer satisfaction. Tangibility has a positive and significant impact on customer satisfaction. However, reliability has a negative and insignificant effect on customer satisfaction.

Mohammad and Alhamadani (2011) conducted a research on the service quality perspectives and customer satisfaction in commercial banks working in Jordan again by examining the Five dimensions of Service quality(tangibility, reliability, responsive ness, assurance and empathy) and Investigated that The five service quality dimensions (tangibility, reliability, responsiveness, assurance and empathy) have a positive and significant effect on customer satisfaction.

Al-Hawary et al., (2011) in his study of Banking service quality provided by commercial banks and customer satisfaction using the five dimensions of SERVQUAL (tangibility, reliability, responsiveness, assurance and empathy examined that four service quality dimensions (tangibility, reliability, assurance, and responsiveness) have a positive and significant effect on customer satisfaction. Empathy has a negative and significant effect on customer satisfaction.

Similarly, the study of Malik et al., (2011) tried to investigate an answer for how do service quality perceptions contribute in satisfying banking customers? By using the five dimensions of SERVQUAL(tangibility ,reliability, responsiveness, assurance and empathy) and concluded the two dimensions of service quality (reliability, assurance) have a significant and positive effect on customer satisfaction. However, the rest three service quality dimensions (tangibility and responsiveness and empathy) have no contribution to customer satisfaction.

The study of Kassa (2012) aimed at examined the effect of customer service quality on customer satisfaction in selected private banks in Addis Ababa. The results of this study indicate that, except responsiveness the four service quality dimensions (tangibility, assurance, empathy and reliability) have positive and significant relationship with customer satisfaction. The finding of this study also indicates that customers were most satisfied with the assurance dimensions of service quality. On the contrary, customers were less satisfied with reliability and empathy dimensions of service quality.

An empirical study of automated teller machine service quality on customer satisfaction was conducted by Idowu & Fadiya (2015). The purpose of this paper was to measure customer satisfaction as regards to e-banking services. The research was carried through survey design which questioned respondents on e-banking services.

The population of study mainly constituted of customers of united bank for Africa within Lagos. The sample in this study consisted of 200 respondents who are users of the e-banking services. The data collected was analyzed by use of multiple logistic regression analysis and Pearson correlation. The findings revealed that, necessary input to the bank management to increase customers' satisfaction through improving e-banking service quality. The focus should not be on e-banking service quality dimensions only. This aspect should be augmented and integrated with other aspects of the service quality of banks for satisfaction of customers. They concluded that among the e-banking service quality dimensions, reliability, responsiveness, and empathy are the most important factors to increase the satisfaction level. Whereas in measuring the customer satisfaction as regards to e-banking services, assurance dimension shows insignificant in comparison to other dimensions.

A study of Narteh (2013) was on "service quality in automated teller machines: an empirical investigation", managing service quality. The aim of this paper is to identify the dimensions of e-banking service quality and to evaluate customers' perceptions of the relative importance of these dimensions. a structured questionnaire gleaned from the literature and focused group studies was used to collect data from 530 e-banking customers of 15 banks in Ghana. Descriptive statistics, exploratory and confirmatory factor analysis, as well as multiple regression, were used to identify the relative importance of the dimensions of e-banking service quality. the paper identified five dimensions of the "e-banking QUAL" model. in order of importance, these dimensions are reliability, convenience, responsiveness, ease of use and fulfillment.

1.6. Conceptual Framework of the Study
The conceptual framework indicates the crucial process, which is useful to show the direction of the study. The study will show the effectiveness of the five service quality dimensions in terms of customer of customer satisfaction in E- banking service.
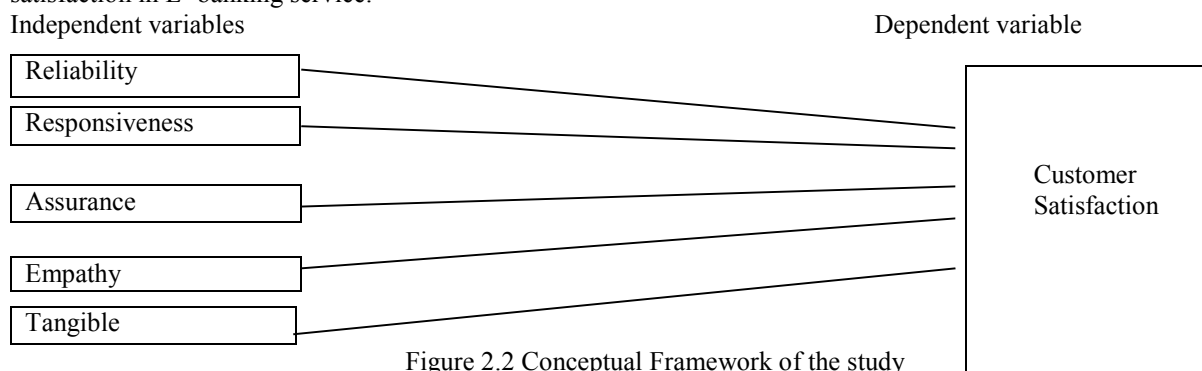
Independent variables   Dependent variable

Figure 2.2 Conceptual Framework of the study

1.7. Research Methodology
Explanatory research design will be used to analyze the data which collect from the customers. The study will be carried out in east gojjam zone e-banking user civil servants in state owned banks.
The appropriate sample size is important part of the study. 190 customers were consulted for the study as a sample size.

Both primary and secondary were employed. Structured questionnaire will be used to collect data. The questionnaire has four parts. The first part of the questionnaire is about the demographic characteristics of respondents. The second section designed to measure the e-banking service quality, the third customers' satisfaction about the bank e-banking service delivery system. The researcher used 5 point Likert scale to measure the variables:-
   • Service quality has been measured by using SERVQUAL items developed by Zeithaml, Berry, and Parasuraman.
   • "Customer satisfaction is measured by Prof. N. Kano customer satisfaction model (Adapted from Kano,1984).

1.7.1.   Data analysis
The statistical package for social science (SPSS 20.0) will be used for analysis of variable under investigation the data is then summarizing in to frequency tables and figures. Chi square test (test dependency) will be used to determine the strength of relationship between variables.

The descriptive statistical results will be presented by tables, frequency distributions and percentages to give a condensed picture of the data. This will be achieved through summary statistics, which includes the means, standard deviations values which are computed for each variable in this study.

In this study Pearson's correlation coefficient will be used to determine the relationships between service quality dimensions (Tangibility, reliability, responsiveness, assurance and empathy) and customer satisfaction.

1.7.2.   Regression model specification

Multiple regression analysis will be used to investigate the effect of service quality dimensions (Tangibility, reliability, responsiveness, assurance, and empathy) on customer satisfaction.

The equation of multiple regressions on this study is generally built around two sets of variable, namely dependent variables (customer satisfaction) and independent variables (Tangibility, reliability, responsiveness, assurance, and empathy). The basic objective of using regression equation on this study is to make the researcher more effective at describing, understanding, predicting, and controlling the stated variables. Regress customer satisfaction on the service quality dimensions

$$Y_i = \beta_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6$$

Where Y is the dependent variable- customer satisfaction

X_2, X_3, X_4, X_5, and X_6 are the explanatory variables (or the regressors)

β_1 is the intercept term- it gives the mean or average effect on Y of all the variables excluded from the equation, although its mechanical interpretation is the average value of Y when the stated independent variables are set equal to zero.

B_2, β_3, β_4, β_5, and β_6 refer to the coefficient of their respective independent variable which measures the change in the mean value of Y, per unit change in their respective independent variables.

1.8. RESULTS AND DISCUSSIONS

1.8.1. Response rate

Two hundred questionnaires were managed to e-banking user customers of state owned banks in Ethiopia. A total of 190 useable copies of the questionnaire were returned. The percentage of the useable copies of the questionnaire was 95 percent.

Table 4.1.response rates

Particulars	Total	Percentage
Total questionnaires distributed	200	100
Questionnaires collected	194	97
Valid questionnaires	190	95

1.8.2. Demographic Profile of Respondents (N=190)

The demographic characteristics or profile for this study include sex, age, level of education, working level and customers' IT experience. This aspect of the analysis deals with the personal data on 190 respondents of the questionnaires given to them. The table below shows the details of background information of the respondents.

Table 4.2 Demographic profile of respondents

Variables	Category	Frequency	Percent
Sex	Male	123	64.7
	Female	67	35.3
Age	18-25	29	15.3
	26-35	115	60.5
	36-45	34	17.9
	46-55	11	5.8
	above 55	1	.5
Education Level	High school	5	2.6
	Certificate	16	8.4
	Diploma	45	23.7
	Degree	114	60.0
	Master and Above	10	5.3
Working level	Woreda	136	71.6
	Zone	54	28.4
IT experience	Low	115	60.5
	High	75	39.5

As shown in table 4.2, there were more males as compared to females. Male respondents represented 64.7%, on the other hand 35.3% were females.

As far as age of respondents is concerned, 15.3% of the respondents are in the range of 18-25 years, 60.5% of the respondents are in the range of 26-35 years, 17.9% are in the range of 36-45 years, 5.8% are in the range of 46-55 and 0.5% is above 55 years. With regard to educational level of respondents, only 2.6% of the respondents were high school graduates, certificate holders represented 8.4% of the customer, Diploma holders represented 23.7% of the customers, degree holders represented 60% and Masters Holders represented 5.3% of the customers. Regarding to working level of respondents, 71.6% of the respondents were at Woreda level whereas 28.4% of

them were at Zonal level. Finally, 60.5% of the respondents were at low level of experience with information technology. The remaining 39.5% of respondents were at high level of IT experience.

1.8.3. Item Reliability Test

Although the questionnaires were adopted from the SERVQUAL items developed by Zeithaml, Berry, and Parasuraman (1988) and Customer satisfaction model Adapted from Kano (1984), cronbach's coefficient alpha was used to test the internal consistency and reliability of the multiple item scales. Cronbach's alpha was used in this study because every item was measuring an underlying construct. It is statistically reliable and valid if the Alpha coefficient is more than 0.60. The Alpha coefficient of the whole items for this study was 0.748. So, it is reliable.

Table 4.3 Item Reliability statistics

Constructs	Cronbach's Alpha	N of Items
Customer satisfaction	0.723	6
Tangibility	0.774	5
Reliability	0.621	5
Responsiveness	0.841	4
Assurance	0.762	5
Empathy	0.768	4
The whole items	0.748	29

1.8.4. Descriptive statistics

It explores and presents an overview of all variables used in the analysis. Descriptive statistics produced the mean and standard deviation for each variable for the study. Mean and standard deviation are used mostly in research studies and regarded as very satisfactory measures of variation. The summary statistics of all the variables in this study is represented as in the following table (4.4) shows that there are 190 observations for each variable, the mean and standard deviation values.

Table 4.4 Descriptive Statistics

Variable	N	Mean	Std. deviation
Tangibility	190	3.3337	.66382
Reliability	190	3.2513	.77008
Responsiveness	190	3.6237	.71212
Assurance	190	2.3779	.71369
Empathy	190	3.1013	.69954
Customer satisfaction	190	2.3365	.67227
Valid N (list wise)	190		

Source: SPSS Regression output

As indicated in Table 4.4 customers of the state owned banks in Ethiopia were satisfied by the five service quality dimensions with a mean and standard deviation of (tangibility 3.3337 and .66382, reliability 3.2513 and .77008, responsiveness 3.6237 and .71212, assurance 2.3779 and .71369, empathy 3.1013and .69954) respectively. The highest number of mean indicated that the customers are more satisfied by service quality dimensions and the highest number of standard deviation indicated that the customers are less satisfied by service quality dimensions of the bank. However, table 4.4 indicated that customer's of the state owned banks in Ethiopia were satisfied by only four service quality dimensions (tangibility, reliability, responsiveness and empathy).

Table 4.4 indicates that among such variables, Responsiveness has the highest mean value and assurance has least mean value. Therefore, it may be concluded from table 4.4 that respondents are most satisfied with responsiveness dimensions with a mean and standard deviation of 3.6237 and .71212 respectively. This is followed by tangibility, reliability and empathy. However, customers are less satisfied with assurance at a mean of 2.3779. The satisfaction has a mean score 2.3365 which indicates that overall customers are not as such satisfied with the service quality of the bank.

1.8.5. Correlation Analysis

The primary objective of correlation analysis is to measure the strength or degree of linear association between two variables. The correlation coefficient measures this strength of (linear) association. It is a measure of linear association or linear dependence only; it has no meaning for describing nonlinear relations (Guajarati 2004). To determine the relationship between service quality dimensions (tangibility, reliability, responsiveness, assurance, and empathy) and customer satisfaction, Pearson correlation was computed. The following table shows the correlation between the variables for the study:

Table 4.5. Correlations tables

Variables		1	2	3	4	5	6
1. Tangibility	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	190					
2. Reliability	Pearson Correlation	-.302**	1				
	Sig. (2-tailed)	.000					
	N	190	190				
3. Responsiveness	Pearson Correlation	.185**	.003	1			
	Sig. (2-tailed)	.009	.969				
	N	200	200	200			
4. Assurance	Pearson Correlation	.250**	-.231**	.422**	1		
	Sig. (2-tailed)	.000	.001	.000			
	N	190	190	190	190		
5. Empathy	Pearson Correlation	-.381**	.201**	-.357**	-.356**	1	
	Sig. (2-tailed)	.000	.004	.000	.000		
	N	190	190	190	190	190	
6. Customer satisfaction	Pearson Correlation	.248**	.158*	.465**	-.170	.103**	1
	Sig. (2-tailed)	.000	.018	.000	.056	.004	
	N	190	190	190	190	190	190

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

*. Correlation is significant at the 0.05 level (2-tailed).

As it shown in the correlation matrix in the above table, each variable is perfectly correlated with itself and so r=1 along the diagonal of the table. The results indicate that, there is positive and significant relationship between tangibility and customer satisfaction (r = 0.248, p < 0.01), reliability and customer satisfaction (r = 0.158, P < 0.05), responsiveness and customer satisfaction (r = 0.465, P <0.01), empathy and customer satisfaction (r = 0.103, < 0.01). However, the results also indicate that, there is a negative and insignificant relationship between assurance and customer satisfaction (r = -0.170, p > 0.05). The finding on table 4.5 above further indicates that the highest relationship is found between responsiveness and customer satisfaction (r = 0.465, p < 0.01). Unlike assurance four service quality dimensions (tangibility, reliability, responsiveness and empathy) has a positive relationship with customer satisfaction.

1.9. Multiple regression results

In this study, multiple regression analysis was carried out to get the predictive values of the constructs considered. Since the model is developed in such a way that each construct is being affected by other constructs, it is necessary to carry out a separate regression analysis against each variable which are considered to be affected by other variables. This was basically made to determine the linear combination of the constructs. Tables 4.6, 4.7 and 4.8 present the results from the multiple regressions carried out using the five service quality dimensions (tangibility, reliability, responsiveness, assurance and empathy) as the independent variables and customer satisfaction as the dependent variable.

Table 4.6 model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.890a	.792	.786	.11629	1.802

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

b. Dependent Variable: Customer satisfaction

Table 4.7 ANOVA table   **ANOVA^b**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.467	5	1.893	140.014	.000a
	Residual	2.488	184	.014		
	Total	11.955	189			

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

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  b.   Dependent Variable: Customer satisfaction

Table 4.8 coefficients   **Coefficients[a]**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Co-linearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.860	.104		-8.296	.000		
	Tangibility	.017	.014	.145	1.102	.003	.793	1.261
	Reliability	.032	.012	.204	1.146	.000	.858	1.165
	Responsiveness	.295	.014	.502	4.777	.000	.754	1.327
	Assurance	-.007	.014	-.020	-.519	.531	.735	1.361
	Empathy	.008	.014	.022	-.556	.018	.736	1.358

Dependent Variable: Customer satisfaction

       From table 4.6, it can be seen that the R Square value for the model showed that 79.2% of the variance in the model can be predicted from the five dimensions of service quality (independence variables): Empathy, Reliability, Responsiveness, Tangible and Assurance.

       Table 4.7 gives the ANOVA test on the general significance of the model. As p is less than 0.05, the model is significant. Thus, Empathy, Reliability, Responsiveness, Tangible and Assurance significantly predict the dependent variable customer satisfaction (F=140.014; p<0.05).

       Table 4.8 showed the standardized beta coefficients. A unit change in the independent variables (service quality dimensions), would produce an effect on the dependent variable (customer satisfaction).

       From this table, responsiveness (β=0.502, p<0.01), reliability (β=0.204, p<0.01) and tangibility (β=0.145, p<0.01) had the highest impact on customer satisfaction. The largest t values for responsiveness (t=4.777), reliability (t=1.146) and tangibility (t=1.102) and their corresponding low p values (p<0.01 for all) supports the result for responsiveness, reliability and tangibility for which there are high beta coefficients.

       Moreover, from the findings of this study, researcher found out that not all of the service quality dimensions have positive effects on customer satisfaction. Out of the five service quality dimensions four dimensions (tangibility p<0.01, reliability p<0.01, responsiveness p<0.01, and empathy; p<0.05) have positive and significant effects on customer satisfaction. On the other hand, assurance has a negative and statistically insignificant influence on customer satisfaction.

       The findings of this study also indicated that responsiveness is the most important factor to have positive and significant effect on customer satisfaction, followed by reliability, and tangibility.

1.10. Discussion of Results
This section discusses the findings of the statistical analysis in relation to the previous research and literature.
1.10.4. The effect of service quality dimensions on Customer satisfaction
The result of this study indicates that tangibility has a positive and significant effect on customer satisfaction. This finding is supported by Kassa (2012), found that tangibility has a positive and significant effect on customer satisfaction. This finding is also supported by other authors (Al Hawary et al., 2011 & Munusamy et al., 2010). In the opposite, Malik et al., (2011) reported that tangibility has no contribution to customer satisfaction (as cited by Kassa, 2012).

       The finding of this study also indicates that reliability has a positive and significant effect on customer satisfaction. This finding is also supported by (Kassa, 2012; Al-Hawary et al., 2011; & Malik et al., 2011), Idowu & Fadiya (2015)and Narteh (2013). On the other hand, Munusamy et al., (2010) reported that reliability has a negative and insignificant effect on customer satisfaction.

       The finding of this study also indicates that responsiveness has a positive and significant effect on customer satisfaction. This result is supported by Idowu & Fadiya (2015), Narteh (2013). Al-Hawary et al., (2011) reported that responsiveness has a positive and significant effect on customer satisfaction. However, this result is different from results by Mohammad and Alhamadani (2011), found that responsiveness has a positive but

insignificant effect on customer satisfaction. On the contrary, Kassa (2012) reported that responsiveness has a negative and insignificant effect on customer satisfaction.

Moreover, the result of this study also indicates that assurance has a negative and insignificant effect on customer satisfaction. This result is supported by Idowu & Fadiya (2015). However, this finding is in the opposite of results by Malik et al. (2011), Al-Hawary et al., (2011) and Kassa (2012).

The finding of this study further indicates that empathy has a positive and significant effect on customer satisfaction. This finding is supported by Mohammad and Alhamadani (2011). On the contrary Munusamy et al., (2010) found that empathy has a negative effect on customer satisfaction.

In overall, the results revealed that all independent variables accounted for 79.2% of the variance in customer satisfaction (R^2 = 0.792). Thus, 79% of the variation in customer satisfaction can be explained by the five service quality dimensions.

Moreover, from the findings of this study, researcher found out that not all of the service quality dimensions have positive effects on customer satisfaction. Out of the five service quality dimensions four dimensions (tangibility, reliability, responsiveness and empathy) have positive and significant effects on customer satisfaction. On the other hand, assurance has a negative and insignificant effect on customer satisfaction. The results of this study further indicate that responsiveness is the most important factor to have a positive and significant effect on customer satisfaction followed by reliability and tangibility.

Conclusion

The study was conducted to examine the effect of customer service quality on customer satisfaction in the case of the state owned banks in Ethiopia. The finding of the study indicates that customer's of the bank were satisfied by only four service quality dimensions (tangibility, reliability, responsiveness and empathy). However, the overall satisfaction level of the customers of this bank was not as such high as measured by the E-BANKING service quality dimensions as the descriptive analysis shown.

The finding of the study also indicates that, customers were most satisfied with the responsiveness dimensions of service quality. However, customers were less satisfied with assurance dimensions of service quality. The correlation result shows that, unlike assurance the four service quality dimensions (tangibility, responsiveness, empathy and reliability) are positively and significantly related with customer satisfaction.

In terms of the stated research hypotheses the following specific empirical findings emerged from the investigation: The four service quality dimensions including tangibility, reliability, responsiveness and empathy have positive and significant effect on customer satisfaction. And then responsiveness is the most influential factor to have a positive and significant effect on customer satisfaction.

Recommendations

Based on the findings and conclusions of the study, the researcher forwards the following recommendations to the management of the bank.

Assurance dimension was considered as one of the most important factors influencing customer satisfaction. However, the customers of the state owned banks in Ethiopia were found less satisfied in terms of the assurance dimensions. One way of addressing this could be by designing strategies of staff training and development to build the knowledge and courtesy of employees and their ability to inspire trust and confidence for customers. This is to say, the bank management should focus on this factor to maximize customer satisfaction.

Furthermore, responsiveness dimension was considered as one of the most important factors influencing customer satisfaction. The finding of the study also indicates that customer's of the bank were satisfied by only four service quality dimensions (tangibility, responsiveness and reliability and empathy). Therefore, the the state owned banks in Ethiopia must adopt the service quality strategies regarding assurance.

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