

ARTICLE

Handling of Customers Satisfaction and Assessment of Service Qualities on Commercial Bank of Ethiopia in Addis Ababa at East District

Birhanu Nitsuh^{1,2} Mekonnen Worku¹ Lake Endeshaw^{3,4*}

1. Department of leadership and good governance, Civil service University, Addis Ababa, Ethiopia

2. Department of Chemistry, Addis Ababa University, Addis Ababa, Ethiopia

3. Department of Physics, Worabe University, Worabe, Ethiopia

4. Department of Space Science and Application Research and Development (SSARD), Ethiopian Space Science and Technology Institute (ESSTI), Addis Ababa University, Addis Ababa, Ethiopia

ARTICLE INFO

Article history

Received: 7 September 2020

Accepted: 13 November 2020

Published Online: 31 January 2021

Keywords:

Commercial Bank of Ethiopia

Customer satisfaction

Service quality dimensions

SERVQUAL model

ABSTRACT

Banking sector in Ethiopia is dominant and it is a dense competent area. Due to this the bank managements tend to continually found the strategies that enables them to be competent in this dense competition. These strategies often focus on handling of customers satisfaction to be strongly compete and pooling more customers. Because, service quality is relevant to keep up their competitive advantage and improve customer satisfaction. So, this study examine the handling of customers satisfaction and assessment of service qualities on Commercial Bank of Ethiopia (CBE) in Addis Ababa at East District by applying SERVQUAL model. This study used convenient and random sampling technique to select the sample respondents and 400 respondents were selected branches of CBE in Addis Ababa at east district. The data sources for this study are primary and secondary data sources. The questionnaires are used as primary data source, which are contained SERVQUAL model and the agreements were measured by applying the five Likert point scales. The correlation result revealed that all dimensions of service quality have a strong and significant statistical relationship with customer satisfaction. The quality of service offered by CBE no meets with the expectation of customer (customers satisfied in somewhat quality service). So, the bank needs to reform service quality for satisfy and attract unsatisfied customers.

1. Introduction

Currently fast changing competitive world, companies are losing their significant number of customers. This is because of the quality of the product or not delivering quality service. In other word service sector rapidly increasing and has a great contribution to the economy. Banking industry is one of the most dominant service sec-

tors in Ethiopia and it has significant role on macro and micro economic level of the country. As the significant increasing of service sector to the economy there is a dense competition in the market. So, banks continually found strategy to overcome these dense competitions and gaining a competitive advantage over competitors^[1,13,14].

Service quality is a relevant for service companies, and it is crucial tool to keep up their competitive advantage in the

**Corresponding Author:*

Lake Endeshaw,

Department of Physics, Worabe University, Worabe, Ethiopia; Department of Space Science and Application Research and Development (SSARD), Ethiopian Space Science and Technology Institute (ESSTI), Addis Ababa University, Addis Ababa, Ethiopia;

Email: endeshawlake@gmail.com

marketplace. So, banks' competition in the market by using differentiated their products by delivering high quality services are used as a basically competitive tool^[2]. Means that service organization providing high quality services able to pool or attract customers to them^[3]. Generally service quality is a tool that used to differentiate its product from competitor in the market by increasing customer satisfaction and fostering loyalty for service companies. For service organization, measuring service quality is difficult because of the uniqueness of service like intangibility, heterogeneity, inseparability and perishability^[4, 18, 19-21].

To solve this difficulty different authors develop different distinctive framework for quality clarification and measurement. Among these the major models are SERVQUAL model developed by Parasuraman et al.^[5,6] SERVPREF model developed by Cronin and Taylor^[7] BSQ scale proposed by Bahia and Nantel^[8] and BAKQUAL scale was proposed by Tsoukatos and Mastrogianni^[9]. From these major frameworks, SERVQUAL mode developed by Parasuraman et al.^[5,6] was used to analysis this study, which is frequently and widely used model for measuring service quality in the bank industry^[4,15]. According to Parasuraman et al.^[6] SERVQUAL model, tangibility, reliability, responsiveness, assurance and empathy are distinguished as service qualities^[4,16, 30-32].

Many researches have been done on the handing of customer satisfaction and assessment of service quality in banking industry. Most of them indicate that quality of service is higher in handling customer satisfaction and the relationship is positive and significant. A solid foundation in defining and measuring service quality was emanated in the mid-eighties Parasuraman et al.^[5] and also Siddiqi and Kazi^[24] described that all the service quality attributes are positively related to customer satisfaction and customer satisfaction is positively related to customer loyalty in the retail banking settings. Furthermore, Daniel^[26] also stated that high quality of service will result in high customer satisfaction and increase loyalty. Therefore, customer satisfaction service quality dimensions (tangibility, reliability responsiveness, assurance and empathy) have a great effect on customer satisfaction on bank industry. The study of Hennayake^[10], were divided service quality dimensions into two as human related factors (reliability, responsiveness and assurance) and non-human related factors (tangibility) and found that human related factors have greater impact on handling of customer satisfaction than non-human related factors service quality. According to the study of Quyet, et al.^[11] tangibility had the greatest effect on customer satisfaction and reliability had the last ranked impact on handling customer satisfaction. The finding of Azzam^[3] showed that the dimensions of service quality and reliability has the highest contribution to handling customer

satisfaction than others. Bethlehem^[1] found tangibility, responsiveness, reliability and assurance have positive impact and empathy has the lowest relationship with customer satisfaction. The finding of Meron^[12], indicated that assurance has the highest correlation with satisfaction of customers. Similarly, the finding of Dejene^[17] showed that assurance have the highest value from other service quality dimensions.

Therefore, this work assesses the handling of customer satisfaction on service quality dimensions in case of CBE in east district of Addis Ababa to assess which quality of service dimensions are a great impact on handling satisfaction of customer. The findings and results that were reported in this study has contribution to the management of the bank and will provide good information about the feeling and level of their customer satisfaction from the services deliver by the bank. So, information's from this study final finding and result is very important to know which problems happen, what the management will be to do to solve these problems, what things are added and minimize to improve customer satisfaction and attract more customers as well as catching the existing customer.

1.1 Research Questions

More specifically, this study answers the following research questions:

Do tangibility, reliability, responsiveness, assurance, and empathy have effects on customer satisfaction in commercial bank of Ethiopia in Addis Ababa at east district?

1.2 Statement of Hypotheses

The hypotheses developed for this study is based on the following assumptions:

H1: The reliability has statistical significance positive effect on customer satisfaction.

H2: The assurance has statistical positive effect on customer satisfaction.

H3: The tangibility has statistical positive effect on customer satisfaction.

H4: The empathy has statistical positive effect on customer satisfaction.

H5: The responsiveness has statistical positive effect on customer satisfaction.

H6: The overall Service quality dimensions has statistical positive effect on customer satisfaction

2. Data Methods

Research is conducted; it constitutes of the collection, measurement and analysis of data. The purpose of the study (exploratory, descriptive), its location the type it should conform to (type of investigation), the extent

to which it is controlled by the researcher (extent of researcher interference), its temporal aspects (time horizon), and the level at which the data was analyzed (unit of analysis), are integral to research design.

After the needed data was gathered, the next step is analyzed the data. For this study Statistical Package for Social Science (SPSS) software version 25 was employed to analyze and present the data by using the statistical tools for this study. These statistical tools were used for this study are descriptive analysis, correlation and multiple regression analysis. To present a profile of the respondents through tables, frequency distributions and percentages and to identify the mean and standard deviation of service quality dimensions and customer satisfaction a descriptive statistical analysis was employed for this study.

In order to determine the relationships between service quality dimensions (reliability, empathy, responsiveness, tangibility and assurance) and customer satisfaction this study is used Pearson’s correlation coefficient. The study is used multiple regression analysis to determine the effect of service quality on customer satisfaction.

2.1 Data Sources

The primary and secondary source of data and method of data collections were consider to this work . This study was used questionnaire as primary data source collection mechanism. and a standard questionnaire was constructed by considering the five dimensions of service quality stated on SERVQUAL model by Parasuraman et al. [5,6]. Further, customer’s perception was used to assess customer satisfaction [28,29]. The attitude of the respondent on these variables was measured by using five Likert scales questionnaire labeled. and additionally as secondary data this study was used report publications produced by CBE and different web sites^①.

2.2 Target Population and Area

The target population and area of the study are all account holder customers who have current or saving account, age 24 years and above in CBE in Addis Ababa at east district. The researchers were investigated seven branches of commercial bank of Ethiopia in Addis Ababa at east district. CBE has one hundred six branches in Addis Ababa at east district. Due to large number of branches, only seven sample branches (Bole, Gerji, Gurd Sholla, Kotebe, Megenagna, Meri, and Goro Adebabay) were included for this study. The total population from those seven branches that were targeted for this study was 322,045

customers.

2.3 Sample Size

The total sample size was determined by using the following sample size determination formula developed by Yemane [22].

$$n = \frac{N}{1 + Ne^2} \tag{1}$$

Where, n the sample size, N the population size and e is the sampling error (0.05) which is 95% of level of confidence.

According to the above formula, the total sample size for the total number of CBE’s customers at the above listed branches is calculated as by using the formula.

$$n = \frac{N}{1 + Ne^2} = \frac{322,045}{1 + 322,045 (0.05)^2} = 399.9 = 400 \tag{2}$$

After the total sample size is determined, the researchers were proceed to allocated the total number of samples proportionately for each branches of CBE at Addis Ababa east district based on their respective total number of customers using the following formula.

Sample size at each branch:

$$(n_1)n_1 = \frac{nN_1}{N} \tag{3}$$

Where, n total number of samples, N total number of customers from each branches, N1 total number of customers at each Branch and n1 sample size at each branch.

Based on the above formula the total samples proportionally allocated for each branches of CBE at Addis Ababa east district based on their respective total number of customers.

Table 1. Population and sample size for each branch at east district (primary data collected in 2019)

No	Branch Name	Total number of customer at each branch (N1)	Proportional sample size from each branch (n1)
1	Megenagna (Rastefri)	90,000	112
2	Gerji (Geogirs, mebrathayle)	67,000	83
3	Gurdsholla	60,000	75
4	Kotebe	20,000	25
5	Meri	40,532	50
6	Goro Adebabay	14,513	18
7	Poly (Africa china)	30,000	37
Total	7	322,045	400

① <http://www.combanketh.et/AboutUs/CompanyProfile.aspx>

2.4 Reliability and Validity Test

The reliability of the questionnaires checked by using Cronbach’s alpha reliability. Alpha reliability used as measuring internal consistency of the mean of the items at the time of administration of the questionnaire. Cronbach’s alpha is indicated that the reliability coefficient of items were set in the questionnaire is positively related to each other. It was computed in terms of the average inter correlations among the items measuring the concept. Table 2 shows that, the Cronbach’s Alpha of each factor was found between 0.704 and 0.857. It implies that all items which are found in each factor are an acceptable level of internal reliability. Validity was tasted to measure the ability of items to address the concept of each service quality dimensions which are used for this study [6].

Table 2. Reliability test of items

Factors	No. of items	Cronbach’s Alpha
Tangibility	4	0.704
Reliability	4	0.797
Responsiveness	4	0.796
Assurance	3	0.792
Empathy	5	0.842
Customer satisfaction	5	0.857

3. Data Analysis and Results

For this study Statistical Package for Social Science (SPSS) software version 25 was employed to analyze and present the data by using the statistical tools. These used statistical tools are descriptive analysis, correlation and multiple regression analysis. To present a profile of the respondents through tables, frequency distributions and percentages and to identify the mean and standard deviation of service quality dimensions and customer satisfaction a descriptive statistical analysis was employed for this study. In order to determine the relationships between service quality dimensions (reliability, empathy, responsiveness, tangibility and assurance) and customer satisfaction this study was used Pearson’s correlation coefficient. The study was used multiple regression analysis to determine the effect of service quality on customer satisfaction.

3.1 Analyzing Service Quality Dimensions

In this study the SERVQUAL model was used to measure customers perception about service quality delivered by CBE. SERVQUAL model is used to measure customers expectation about service quality that the bank provide directly compare their expectation with the actual or perceived service. In order to measure the result of

customers perception about the quality of service provides by commercial bank of Ethiopia. The mean and standard deviation of each questions about each service quality dimensions are computed as follows.

3.1.1 Tangibility

Tangibility pertains to the physical facilities, equipment, personnel and communication materials.

Table 3. Mean and Standard deviation score for tangibility in survey data 2019

Items	N		Mean ± SD	Tangibility (mean of mean)	Std. Deviation
	Valid	Missing			
The branch has up to date equipment’s	390	0	4.17± 0.2	4.31	0.215
The branch facilities are visually attractive	390	0	4.10 ± 0.24		
The branch has office at convenient location to its customer	390	0	4.41 ± 0.23		
Staffs of the branch at the front line position are well dressed and appear neat.	390	0	4.56 ± 0.19		

3.1.2 Reliability

Reliability refers to the ability to perform the promised services dependably and accurately.

Table 4. Mean and Standard deviation score for reliability in survey data 2019

Items	N		Mean ± SD	Reliability (mean of mean)	Std. Deviation
	Valid	Missing			
There is a quality of network and speed service enabling the bank provide service as promised	390	0	3.89 ±0.33	3.59	0.337
Keep customer record correctly	390	0	4.10 ± 0.29		
Provide service at the designed and promised time	390	0	3.87 ± 0.35		
Staffs of the branch at the front line position are well dressed and appear neat.	390	0	3.25 ± 0.38		

3.1.3 Responsiveness

Responsiveness refers to willingness or readiness of employee to provide service promptly or even setting up appointment quickly and understanding customers interest, goals or problems.

Table 5. Mean and standard deviation score for responsiveness in survey data 2019

Items	Valid	Missing	N		
			Mean ± SD	Responsiveness (mean of mean)	Std. Deviation
Employees provide punctual service	390	0	4.00 ± 0.128	3.92	0.1295
Employees willingness to help customers	390	0	3.77 ± 0.13		
Employees are never busy to respond to customer request	390	0	4.05 ± 0.11		
Employees give quick response when ether is problem	390	0	3.85 ± 0.15		

3.1.4. Assurance

Assurance relates to the knowledge and courtesy of employees and their ability to convey trust and confidence.

Table 6. Mean and standard deviation score for assurance in survey data 2019

Items	Valid	Missing	N		
			Mean ± SD	Mean of mean (Assurance)	Std. Deviation
Staffs are excellent and trust in personal behavior	390	0	3.74± 0.22	4.31	0.210
staffs are polite	390	0	4.03 ± 0.20		
staffs have adequate knowledge to serve customer	390	0	4.15±0.21		

3.1.5 Empathy

Empathy refers to the provision of caring and individualized attention to customers.

Table 7. Mean and Standard deviation score for empathy in survey data 2019

Items	Valid	Missing	N		
			Mean ± SD	Mean of mean (empathy)	Std. Deviation
The staff know what customers' specific needs are	390	0	3.65± 0.2	3.48	0.213
Staffs are give customers individual attention	390	0	3.77 ± 0.23		
Staffs give orientation about the new service and the cost related with the service	390	0	4.01± 0.199		
The bank and its employees give do consideration for customers property	390	0	3.49 ± 0.22		

Table 8. Mean and standard deviation of service quality dimensions in survey data 2019

	Tangibility	Reliability	Responsiveness	Assurance	Empathy	Mean of mean	Std. Deviation
Valid	390	390	390	390	390	2.04	0.269
N							
Missing	0	0	0	0	0		
Mean	4.31	3.59	3.92	3.97	3.48		

To summarize all the above tables, tangibility has the highest mean value of 4.31. It implies that customers satisfaction arises from the dimension of service quality tangibility (4.31). The mean valve of assurance, responsiveness, empathy and reliability are 3.97, 3.92, 3.68 and 3.59 respectively. Reliability has the lowest mean value with 3.59. Regarding to this we conclude that the service provide by commercial bank of Ethiopia is somewhat quality of satisfied in most customer service dimensions. According to the study of Quyet et al. [11] tangibility had the greatest satisfaction and reliability had the last satisfaction. The result of this study is consistent with this study.

3.2 Analyzing Customer Satisfaction

The following table indicates that the level of customer satisfaction about the security of the bank service, respectful behavior of the bank staffs, communicative ability of the employee of the bank, performance of the employee of the bank and the various rang of service of CBE. According to the data presented on the Table 8, customers almost satisfied with mean value ranges from 3.59 - 3.80. Therefore, majority of the customers are satisfied with respectful behavior of the bank staffs, the communicative ability of the employee of the bank, the performance of the employee of the bank and various rang of service of CBE. The overall mean result of customer satisfaction is 3.67, which implies that majority of the customers are satisfied by the service provided by the bank. The finding of Endalkachew [23] conducted on Assessing the impact of Core Banking and service quality on Customer Satisfaction in Commercial Bank of Ethiopia (A case of Bishofftu Branch) shows that, 85% of the customer are satisfied with the various rang of service of CBE at Bishofftu branch, which is similar to the result of this study.

Table 9. Mean and standard deviation of customer satisfaction in survey data 2019

Items	N		Mean ± SD	Customer satisfaction (Mean of mean)	Std. Deviation
	Valid	Missing			
I am satisfied with the security of the bank services.	390	0	3.60 ± 0.08		
I am satisfied with respectful behavior of the bank staffs	390	0	3.80± 0.098		
I am satisfied with the communicative ability of the employee of the bank	390	0	3.78± 0.099	3.67	0.098
I am satisfied with the performance of the employee of the bank.	390	0	3.59 ± 0.1		
I am satisfied with various rang of service of CBE	390	0	3.71 ± 0.11		

3.3 Correlation Analysis between Service Quality Dimensions and Customer Satisfaction

Correlation analysis is measuring or indicating of liner relationship and measure the strength of the association between two variables. The coefficient of correlation founds between -1 and 1. If the correlation coefficient approaches to positive one there is a strong positive relationship among the two variables. In other way the correlation coefficient is -1, show that the two variables have a strong negative relationship. If there is no a relationship between the two variables the correlation coefficient equal to zero.

The correlation coefficient lie between 0.1 and 0.29 the relationship between two variables are week. When the relationship between two variables moderate, the correlation coefficient found between 0.3 and 0.49 and the correlation coefficient of the two variables is more than 0.5 there is a strong relationship among them. For this study Pearson correlation coefficient was used to study the relationship between service qualities dimensions namely tangibility, reliability, responsiveness, assurance and empathy and customer satisfaction. The following table shows that the Pearson Correlation matrices on the relationship between service qualities dimensions and customer satisfaction.

Table 10. Descriptive statistics and correlations (output of SPSS from surveying data in 2019)

Variables	Tangibility	Reliability	Responsiveness	Assurance	Empathy	Empathy	Customer satisfaction	Mean ± SD
1	1	0.879	0.190	0.561	0.209	0.209	0.550	0.33± 0.11
2	-0.879	1	0.67	0.156	0.649	0.649	0.651	0.34± 0.31
3	0.190	0.67	1	-0.067	0.478	0.478	0.624	0.22± 0.10
4	0.561	-0.156	-0.067	1	0.911	0.911	0.602	0.83± 0.35
5	-0.209	0.649	0.478	0.911	1	1	0.699	0.57± 0.02
6	0.367	0.819	0.6950	0.413	0.9290	0.9290	1	0.76± 0.42

According to Table 10, all of the five service quality dimensions have a strong statistical or significant positive relationship with customer satisfaction at the p-value 0.000, which is less than the significant level 0.01 (1%). Among them empathy have the strongest relationship with correlation coefficient of 0.699 followed by reliability with coefficient of 0.651, responsiveness 0.624 and assurance 0.602. Tangibility has the weakest relationship with customer satisfaction relatively to the other four dimensions at the Pearson correlation coefficient 0.550.

If there is a positive relationship between two variables, indicates that if one variable increases, the other variable will be increases. Therefore, based on the above discussion service quality dimensions and customer satisfaction have a strong positive correlation. So, offering a better quality of service enhancing customer satisfaction. The finding of Meron [12] conducted on quality of service impacts on satisfaction of customer and the results showed that the correlation to satisfaction, that is assurance (0.606), responsiveness (0.585), reliability (0.512), tangibility (0.501) and empathy (0.487). It was inconsistent with this study. This is due to different factors such as time, number of sample and educational level of the respondents.

3.4 Multiple Regression Analysis of Overall Service Quality Dimensions and Customer Satisfaction

Multiple regressions are the most common and widely used to analyze the relationship between a single continues dependent variable and multiple continues on categorical independent variable [1]. Multiple regression analysis is a form of statistical analysis that seeks the equation representing the effect of two or more independent variables on a single dependent variable. Multiple regression analysis is a statistical model used to analysis or figure out

the extent of the effect of two or more independent variables on a single dependent variable. More precisely, multiple regressions able to show how the value of dependent variable changes as the value of two or more independent variables is changed^[27].

For this study, multiple regression analysis was used to determine the strength of the relationship between the overall service quality dimensions those are contracted on the conceptual framework and customer satisfaction. From the multiple regression analysis of the overall service quality dimensions (independent variables) and customer satisfaction (dependent variable), the model summary revealed that 59.8 % (R²=0.598) of the variation of customer satisfaction explained by the overall service quality dimensions which are developed in the conceptual framework (Tangibility, Reliability, Responsiveness, Assurance and Empathy). Therefore, service quality dimensions have a positive effect on customer satisfaction.

Table 11. Model Summary of service quality dimensions (Regression output of SPSS from Own survey data in 2019)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.770a	.598	.593	.606

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

The following analysis of variance (ANOVA) table demonstrates that the good fitness of the model. More precisely, ANOVA table shows that the significance of the regression model. So, the following ANOVA table refers that the model is significant or good fit at F (5, 376) 112.922, p =0.000. So, the result leads to accept the sixth hypothesis “Service quality has a positive effect on customer satisfaction”. And also, this answer the first research question that is; does service quality has an effect on customer satisfaction in banking service and what kind of effect in commercial bank of Ethiopia at Addis Ababa in east district?

Table 12. ANOVA of service quality dimensions and customer satisfaction (Regression output of SPSS from Own survey data in 2019)

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	209.635	14	42.127	112.922	.000b
Residual	139.799	375	.368		
Total	345.434	389			

Notes: a. Dependent Variable: Customer satisfaction b. Predictors: (Constant), Empathy, Tangibility, Reliability, Assurance and Responsiveness

Table 13. Coefficients of service quality dimensions on customer satisfaction (Regression output of SPSS from Own survey data in 2019)

Model	Customer satisfaction		
	*B	Std. Error	Beta
(Constant)	.264	.168	
Tangibility	.155	.054	.130
Reliability	.199	.054	.204
1 Responsiveness	.106	.059	.105
Assurance	.109	.053	.108
Empathy	.416	.053	.420
R Square		0.598	

Note: a. Dependent Variable: Customer satisfaction.

The above multiple regression coefficient pertained that the contribution or the effect of each service quality dimensions (independent variables) on the model. The predictor variables which have a higher beta coefficient with the lower p-value (p<0.05) have a significant contribution or effect on the dependent variable. Otherwise, predictor variables which have the small beta coefficient and higher p-value have a little or no effect on the model. The above Table 12, indicate that the overall service quality dimensions (tangibility, reliability responsiveness, assurance and empathy) has a positive and significant effect or contribution on customer satisfaction by 0.155, 0.199, 0.106, 0.109 and 0.416 beta value and at p=0.042, 0.000, 0.006, 0.008 and 0.000 respectively.

From the above table of multiple regression coefficients, the following regression equation was developing to predict the level of customer satisfaction due to the listed predictor on this study.

$$Y = a + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 \tag{4}$$

$$Y = 0.264 + 0.155x_1 + 0.199x_2 + 0.106x_3 + 0.109x_4 + 0.416x_5 \tag{5}$$

Where, Y= dependent variable (customer satisfaction), a= constant (if all predictor variables are 0 (zero), the value of dependent variable equals to constant (=0.338)), $\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 = the beta coefficient of tangibility, reliability responsiveness, assurance and empathy respectively, x_1, x_2, x_3, x_4 and x_5 = the predictors or independent variables (tangibility, reliability responsiveness, assurance and empathy) respectively.

4. Discussions

For this study, 400 questionnaires were distributed, and 390 questionnaires were properly filled and collected. The general profile of the respondents showed that 53.8% of the respondents are male whereas the remaining 46.2% are female. Regarding to the age profile of the respondents pertain that 77% of the respondents were between 24-30 years old. It implies that majority customer of commercial bank of Ethiopia at Addis east district are up to 30 years old. The educational background of the respondents showed that 69.2 % of the respondents were degree holders and above. Regarding to the length of time the respondents use the service of CBE, 46.2% of the respondent lasted three years. The data about the type of account of the respondents do have revealed that 87.2 % of them do have saving account. So, majority of the customer of the bank have saving account.

The descriptive analysis of this study pertain that tangibility have the highest value of 4.31 followed by assurance with the mean value of 3.97, responsiveness with the mean of 3.92, empathy with the mean of 3.68 and reliability have the least value which is 3.59. Regarding to this we conclude that the service provide by commercial bank of Ethiopia is somewhat quality of service. The customer satisfaction rank is tangibility > assurance > responsiveness > empathy > reliability. The result of the research conducted by Dejene ^[17] the effect of service quality on customer satisfaction and showed that the mean value of assurance > responsiveness > empathy > reliability > tangibility. Meron ^[12] has conducted the impact of service quality on customer satisfaction and indicated that the mean value of assurance > responsiveness > reliability > empathy > tangibility. And also in the study of Quyet et al. ^[11] tangibility is the greatest and reliability is the last satisfaction. The result of this study is consistent with this study. This difference the above studies is came may be due to time and amount of customers. Study on customer satisfaction is necessary every time until service quality and customer satisfaction becomes constant.

The multiple regression analysis result of this study demonstrate that, all service quality dimensions have a positive and statistically significant effect on customer satisfaction at 95% of level of confidence ($p < 0.05$). From the model summary of multiple regression the value of R squared shows that 59.8% of the variation of customer satisfaction explained by service quality dimensions the remaining 40.2 % explained by other factors which doesn't included in this study. A research done by Beth-

lehem ^[1] on the impact of service quality on customer satisfaction; the case of Commercial Bank of Ethiopia the regression analysis result shows that, except empathy all service quality dimensions (tangibility, reliability, responsiveness and assurance) have a positive and statistically significant impact on customer satisfaction and 82.7% of the variation of customer satisfaction explained by service quality.

The result of the study conducted by Girma ^[25] on Service Quality and its influence on customer satisfaction: the case of Oromia International Bank SC. The regression analysis indicate that, "the four independent variables tangibility, reliability, assurance and empathy are influencing costumers" satisfaction significantly at 95% ($\alpha = 0.05$) confidence level. However, responsiveness has no significant influence on customers' satisfaction at 95% ($\alpha = 0.05$) confidence level. The study of Meron ^[12] on the impact of service quality on customer satisfaction: the case of Bank of Abyssinia S.C regression analysis shows that, tangibility, responsiveness and assurance have appositve and statistical significant effect on customer satisfaction at 95% level of confidence ($\alpha = 0.05$). But reliability and empathy doesn't have statistically significant effect on customer satisfaction and service quality can explain 43.8% of the variation of customer satisfaction. Finally all the above mentioned studies reviled that; service quality dimensions have a positive and statistical significant relationship with customer satisfaction.

5. Conclusions

This study investigated to point out the handling of customer satisfaction on service quality dimensions in case of CBE in east district of Addis Ababa. The satisfaction of the customer rank is tangibility > assurance > responsiveness > empathy > reliability. The dimensions of service qualities had positive and statistically significant impact on satisfaction of customers. Relatively empathy and tangibility have the strongest and weakest correlation with satisfaction of customer by 0.699 and 0.550 correlation coefficients respectively. Reliability, responsiveness and assurance also have statistically significant effect on customer satisfaction with 0.651, 0.624 and 0.602 correlation coefficients respectively. The overall service quality dimensions can explain 59.8% of the variation of customer satisfaction.

Competing interests

The authors declare that they have no competing interests.

References

- [1] Bethlehem tesfaye. The impact of service quality on customer satisfaction the case of commercial bank of Ethiopia. A thesis submitted to St. Mary's university, school of graduate studies in partial fulfillment of the requirements for the degree of master of business administration, 2015.
- [2] Logasvathi Murugiah, Haitham Ahmed Akgam. Study of Customer Satisfaction in the Banking Sector in Libya. *Journal of Economics, Business and Management*, 2015, 3(7).
- [3] Azzam Mahmoud. The Impact of Service Quality Dimensions on Customer Satisfaction: A Field Study of Arab Bank in Irbid City, Jordan, *European Journal of Business and Management*, 2015, 7(15).
- www.iiste.org
ISSN: 2222-1905 (Paper) ISSN: 2222-2839 (Online).
- [4] Saghier, Nathan. Service Quality Dimensions and Customers' Satisfactions of Banks in Egypt. *Proceedings of 20th International Business Research Conference 4 - 5 April 2013, Dubai, UAE, 2013.*
ISBN: 978-1-922069-22-1
- [5] Parasuraman, A. Berry, L., Zeithaml, V.A. A Conceptual Model of Service Quality and its Implication for Future Research. *Journal of Marketing*, 1985, 49(4): 41-50.
- [6] Parasuraman, A., Zeithaml, V. A., Berry, L. SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 1988, 64(spring): 12-40.
- [7] Cronin Jr, J. J., Taylor, S. A. Measuring service quality: a reexamination and extension. *The journal of marketing*, 1992: 55-68.
- [8] Bahia, K., Nantel, J. A reliable and valid measurement scale for the perceived service quality of banks. *International journal of bank marketing*, 2000, 18(2): 84-91.
- [9] Tsoukatos, E., Mastrojianni, E. Key Determinants of Service Quality in Retail Banking. *EuroMed Journal of Business*, 2010, 5(1): 85-100.
- [10] Hennayake, H. M. G. Y. J. Impact of Service Quality on Customer Satisfaction of Public Sector Commercial Banks: A Study on Rural Economic Context. *International Journal of Scientific and Research Publications*, 2017, 7(2): 156-161. Jay
- [11] Quyet Van, T., Vinh, N. Q., Chang, T. Service quality effects on customer satisfaction in banking industry. *International Journal of u-and e-Service, Science and Technology*, 2015, 8(8): 199-206.
- [12] Meron Melaku. Impact of Service Quality on Customer Satisfaction: The Case of Bank of Abyssinia S.C. A Research Project Submitted to the College of Business and Economics of Addis Ababa University in partial fulfillment of the requirement for the Degree of Executive Master of Business Administration (EMBA), 2015.
- [13] Heizer, Barry Render, Chuck Munson. *Operations Management-Sustainability and Supply Chain Management* (12th Edition), India-Pearson education, 2017.
- [14] Bitner, M. J., Hubbert, A. R. Encounter satisfaction versus overall satisfaction versus quality. *Service quality: New directions in theory and practice*, 1994, 34: 72-94.
- [15] Culiberg, B., Rojšek, I. Identifying service quality dimensions as antecedents to customer satisfaction in retail banking. *Economic and business review*, 2010, 12(3): 151-166.
- [16] Lovelock, C. *Services marketing: People, technology, strategy*. Pearson Education India, 2011.
- [17] Dejene Girma. The effect of service quality on customer satisfaction: the case of Dashen Bank SC, 2017.
- [18] Ladhari, R. A review of twenty years of SERVQUAL research. *International Journal of Marketing Literature*, *Journal of Retailing*, 2009, 69(1): 61-103.
- [19] Negi, R. Determining customer satisfaction through perceived service quality: A study of Ethiopian mobile users. *International Journal of Mobile Marketing*, 2009, 4(1): 31-38.
- [20] Crosby, L. A., Evans, K. R., Cowles, D. Relationship quality in services selling: an interpersonal influence perspective. *The journal of marketing*, 1990: 68-81.
- [21] Gronroos, C. A Service Quality Model and Its Marketing Implications. *European Journal of Marketing*, 1984, 18(4): 36-44.
- [22] Yemane, Taro. *Statistics, An introductory Analysis*, 2nd Ed., New York: Harper and Row, 1967.
- [23] Endalkachew Abebe. Assessing the impact of Core Banking and service quality on Customer Satisfaction in Commercial Bank of Ethiopia (A case of Bishofftu Branch). A research project submitted in partial fulfillment of the requirement for masters of business administration degree in marketing Management, 2013.
- [24] Siddiqi, Kazi, O. Interrelations between Service Qualities Attributes, Customer Satisfaction and Customer Loyalty in the Retail Banking Sector in Bangladesh. *International Journal of Business and Management*, 2011, 6(3).
- [25] Girma Bersisa. Assessment of service quality and its influence on customer satisfaction: the case of Oromia International Bank SC. A research project

- submitted in partial fulfilment of the requirement for the award of degree of executive masters of business administration (EMBA), 2015.
- [26] Daniel, O. Service quality, Satisfaction, Perceived value and Loyalty among customers in Commercial Banking in Nakuru Municipality, Kenya, *African Journal of Marketing Management*, 2012, 4(5): 185-203.
- [27] Babbie, R. *The Practice of Social Research* (13th Edition). Wadsworth Publishing Company, 2013.
- [28] Rubogorafelix. service quality and customer satisfaction in selected banks in Rwanda. *Journal of business & financial affairs*, j bus fin aff, 2017, 6: 1. [https://doi.org/ 10.4172/2167-0234.1000246](https://doi.org/10.4172/2167-0234.1000246).
- [29] Babakus, E., Boller, G. W. An empirical assessment of the SERVQUAL scale. *Journal of Business research*, 1992, 24(3): 253-268.
- [30] Bolton, R. N., Drew, J. H. A multistage model of customers' assessments of service quality and value. *Journal of consumer research*, 1991, 17(4): 375-384.
- [31] Zeithaml V.A., Berry L.L. Problems and Strategies in Services Marketing. *Journal of Marketing*, 1985, 49: 33-46.
- [32] Oliver, C. Sustainable Competitive Advantage: Combining Institutional and Resource-based Views. *Strategic Management Journal*, 1997, 18(9): 697-713.