Effects of electronic banking service quality on customer satisfaction (In the case of Commercial Bank of Ethiopia in Afar Region, Ethiopia)

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Abstract---The main purpose of this study was to examine the effect of Electronic-Banking service quality on customer satisfaction in case of Commercial bank of Ethiopia Afar region branches. The study was an explanatory research design and used the quantitative research approach. Primary data were collected by the structured 5 point Likert scale based questionnaires from 385 conveniently selected E-banking service users and interview with the branch business managers of Commercial Bank of Ethiopia Dubti, Semera, Logia and Ardi branches. The data was analyzed by undertaking the descriptive statistics, Pearson correlation and multiple regression analysis. Results of the study revealed that among the five service quality dimensions (tangibility, reliability, responsiveness, assurance and empathy), tangibility, reliability, assurance and empathy have a positive and significant effect on the customer satisfaction. Thus, management bodies of Commercial Bank of Ethiopia Afar region branches should strive to strengthen these E-banking service quality dimensions.

Keywords---Electronic Banking, Customer satisfaction, Service quality dimensions.

Introduction

In the last few decades, banks have seen a shift in their objectives and strategies due to the emergence of an information and communications revolution in the financial and banking markets. This has prompted banks to move towards the introduction of a new type of services based on information technology (IT), offering what is known as "electronic banking services", or E-banking in addition to traditional banking services (AlHaliq and AlMuhirat, 2016). The application of
Information and communication technology concepts, techniques, policies and implementation strategies to banking services has become a subject of fundamentals importance and concerns to all banks and indeed a prerequisite for local and global competitiveness in banking industry. As a result of this technological improvement business environment in financial sector is extremely dynamic and experience rapid changes and demands banks to serve their customer electronically (Worku et al, 2016).

E-banking is a service that provides customers the opportunity to gain access to their accounts, execute transactions, and obtain information on financial products and services through a public or private network, including the internet (Driga, and Isac, 2014). It is the means by which the services and products of banks are made available to their customers through the use of internet and electronic digital devices irrespective of the location of the customer and time of carrying out the transaction. Furthermore, this implies that electronic banking channels enable customers to carry out transactions on their own with ease and convenience (Ovia, 2002). Consequently, customers can carry out banking transactions, such as withdrawal of cash, deposits or transfer of funds, make payment for goods and services online without the direct help of the bank. Today, almost all banks are adopting electronic banking as a means of enhancing service quality of banking services. They are providing electronic banking to their customers to increase customers’ satisfaction in banking service (Shitu, 2010).

In the face of rapid expansion of electronic payment systems throughout the world, the Ethiopian financial sector cannot remain an exception in expanding the use of the system. The emergence of E-banking in Ethiopia goes back to the late 2001, when the largest state owned commercial bank of Ethiopia (CBE) introduced ATM to deliver service to the local users (Gardachew, 2010). Currently, almost all commercial banks in Ethiopia provide E-banking services in one or more ways. Card based payment through ATM and Point of Sale (POS) machines, Mobile banking, Internet banking and Agent banking are some of E-banking services exercised in Ethiopia (Yemisrach, 2018).

Service quality and customer satisfaction are very important concepts, which must understand by companies that want to grow while keeping their competitive edge. In the modern competitive environments, delivering high service quality is the key for a sustainable competitive advantage. Customer satisfaction has a positive effect on the organization profitability (Mikyas, 2019). All the service sectors depend on customer and their satisfaction and the banks are no exception. One of the ways for achieving high customer satisfaction and gaining the loyalty of customers is for banks to offer high quality services (Mekides, 2019). The adoption of the services of electronic banking has consequently ushered in the services of Financial Technology geared towards improving service delivery and customer satisfaction as well as a more improved and standardized banking industry (Adejoke and Charles, 2019).

The use of technology and electronic product in the banking sector are becoming a common phenomenon, as the use of ATM, Mobile banking and Internet banking is known to promote efficiency and customer satisfaction in diverse ways. E-banking enables the customers to enjoy the benefit of quick service delivery,
reduced frequency of going to banks physically and reduced cash handling, which will give rise to higher volume of turnover.

E-banking services are at an infant stage in Ethiopia; even though expansion of E-banking throughout the developed and the developing world is rapid, Ethiopia’s financial sector remain behind in expanding the use of the service. Certainly, the banking industry is not well developed with a growing number of international trades; increase the demand of the customer and international relations. The today’s banking system has problems of offering efficient and dependable services (Garedachew, 2010).

In Ethiopia both private and government banks E-banking customers are suffering from frequent disruption of E-banking service due to poorly developed telecommunication infrastructure, lack of reliable power supply, and lack of knowledge from customers end (Sintayeh, 2015). Security risk and lack of trust on the use of technological adoption are other major barriers for the E-banking system (Ayana, 2014).

Dr. Uvaneswa et al, (2017) indicated that network failure, system failure, machine breakdown and cash shortage in ATM machine, and non-availability of internet are the major problems encountered by customers while using E-banking services. Shakila and Faria (2013) also indicated that slow bandwidth of internet, banks delay to provide PIN number whenever client loses his Credit or Debit card, Power failure in the outlets, higher charge for the card and traditional habits of common people were a common constraint of E-banking.

Customer’s complaint about certain aspects of E-banking services has an impact on consumers as they might need the money to carry out an important transaction or to pay off a debt; this creates dissatisfaction to the customer (Gomachab, 2018). Due to various challenges customers hardly talk about the electronic banking products, queues are still seen in the banking halls, bank customers still handle too much cash.

Service quality dimensions reliability, responsiveness, assurance, and empathy have more importance to increase customer satisfaction in electronic banking because when once service quality is high then it has an indispensable contribution on the improvement of customer satisfaction but different challenges could be an obstacle to provide efficient electronic banking based services to customers (Surafel, 2016). Abel (2019) also indicated that an increase in reliability, empathy, assurance and responsiveness of E-banking service leads to an increase in E-banking customer’s satisfaction, however infrastructural barriers like low level of internet, weak telecommunication and frequent power interruption results in to customer dissatisfaction.

Habtie (2019) conducted a study on the effects of ATM service quality on customer satisfaction in Ethiopian banking industry. However, the researcher did not consider other E-banking products of the banks like Internet banking and Mobile banking.
Some other researchers were also conducted on E-banking but their main focus was related with the adoption of the E banking not on its effect on customer satisfaction. Mattewos (2016) conducted a research on the challenge and prospects of E banking in Ethiopia. Abduselam (2019) conducted a research on opportunity and challenges of E-banking System in Commercial Bank of Ethiopia in Gurage Zone. All these studies mainly focused of the adoption of E banking particularly on the challenges and opportunities in the adoption.

The researcher believed that the above mentioned factors from various studies have negative impact on the customers’ satisfaction with the product. Commercial Bank of Ethiopia started E-Banking service products to its customers since 2001 (Gardachew, 2010). Thus, it would be important to study how much the Banks customers are satisfied with the E-Banking services that can help make further improvement.

Thus, in order to determine customers’ satisfaction with the E-Banking services of Commercial Bank of Ethiopia, this study have been made to examine the effects of E-banking service quality on customer satisfaction in Commercial Bank of Ethiopia in Afar region.

**Research Methodology**

The study aimed at examining the effect of E-banking service quality on customer satisfaction. As the study tried to establish the relationship between these two variables, it has employed explanatory research design. Explanatory research helps to identify any causal link between the factors or variables that pertain to research problem and to analyze the extent to which one (independent) variable predicts the other (dependent) variable.

The target population of this study was E-banking customers of four selected branches of Commercial Bank of Ethiopia in Afar, specifically; Samara branch, Dupti branch, Logia branch and Ardi branch. Therefore, customers of these branches who were actively using any of E-banking service considered as target population of this study. Accordingly, as of February 13, 2020 the total number of E-banking active users of these four branches were 16,883 (Samara: 8179, Dupti: 3899, Ardi: 963 and Logia: 3842).

Purposive sampling technique has been used to select the branches based on their E-banking performance. The E-banking performance evaluation mainly includes number of E-banking users, number of E-banking transaction and volume of transactions made by any E-banking service.

Furthermore, the respondents from the selected branches were selected by using convenience sampling technique. Convenience sampling is a non probability sampling technique in which a sample of the study is taken from the group of respondents which are conveniently accessible to the researcher. For the purpose of this study, the participants were approached as they enter the bank hall and also when they were using ATM service.
In order to generate valuable and relevant data the study has used both primary and secondary sources of data. Primary data were gathered through self-administered close-ended questionnaires method and personal interview. And also secondary source of data were obtained from books, journals, articles, magazine, annual reports of Commercial Bank of Ethiopia, newspapers and internet.

The primary sources of data were gathered through self-administered close-ended questionnaires and personal interview with the branch business managers. It enables the researcher to get information from people quickly and give adequate time to the respondents to respond well thought out answers. The questionnaires had two parts. The first part was demographic characteristics of respondents and the second part regarding E-banking service quality dimensions. Under the demographic section variables such as age of the respondent, gender, marital status, educational status, E-banking service experience and E-banking service type were asked. In the second section questions on E-banking service quality and customer satisfaction were asked.

The questionnaires used a five point Likert Scale where respondents were asked to indicate the extent to which they agree/disagree with various statements. The Five-Point Likert’s scale having the ratings of “strongly disagree” (1) and “strongly agree” (5) was used. Secondary data were collected mainly from different published and unpublished materials, such as books, journals, articles, magazine, annual reports of Commercial Bank of Ethiopia, newspapers and internet.

**Discussions**

<table>
<thead>
<tr>
<th>Type of E-banking service</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM</td>
<td>184</td>
<td>47.8</td>
<td>47.8</td>
<td>47.8</td>
</tr>
<tr>
<td>Mobile Banking</td>
<td>92</td>
<td>23.9</td>
<td>23.9</td>
<td>71.7</td>
</tr>
<tr>
<td>Internet Banking</td>
<td>16</td>
<td>4.2</td>
<td>4.2</td>
<td>75.8</td>
</tr>
<tr>
<td>More than one service</td>
<td>93</td>
<td>24.2</td>
<td>24.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>385</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Own Survey (2020)

The above table indicated that 47.8% respondents use ATM, 24.2% of respondents use more than one type of E-banking service, 23.9% of respondent use Mobile banking and 4.2% of respondents use Internet banking. This indicated that ATM users were large in number; because customers are adopting the function and service of ATM better than other E-banking service of the banks. The above table also indicated that there is a small number of customer who are using Internet banking service of the bank, since Internet banking service requires...
computer and high network infrastructure most of customers of the banks do not prefer to use the service.

**Descriptive Statistics Analysis**

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 (9) shows that there are 385 observations for each variable, the mean and standard deviation values. The highest number of mean indicated that the customers are more satisfied by E-banking service quality dimensions and the highest number of standard deviation indicated that the customers are less satisfied by service quality dimensions of the bank.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>385</td>
<td>3.37</td>
<td>.940</td>
</tr>
<tr>
<td>Reliability</td>
<td>385</td>
<td>3.36</td>
<td>.891</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>385</td>
<td>3.32</td>
<td>.940</td>
</tr>
<tr>
<td>Assurance</td>
<td>385</td>
<td>3.68</td>
<td>.845</td>
</tr>
<tr>
<td>Empathy</td>
<td>385</td>
<td>3.56</td>
<td>.796</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>385</td>
<td>3.42</td>
<td>.960</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td></td>
<td></td>
<td>.940</td>
</tr>
</tbody>
</table>

Source: Own Survey (2020)

The above table has shown the statistical description of E-banking service quality dimensions, where it has found that banks customers perceived assurance (with the highest mean scores, i.e. M = 3.68, SD = 0.845) to be the most dominant service quality dimension and evident to a considerable extent, followed by empathy (M = 3.56, SD = 0.796), tangibility (M =3.37, SD = 0.940), reliability (M = 3.36, SD = 0.940) and responsiveness (M = 3.32, SD = 0.940).

As it is indicated in the above table the mean value of overall E-banking satisfaction is 3.42. This showed that customer satisfaction was above satisfactory level with present service of CBE Afar region branches and the Standard deviation was also found less than 1.

As far as the mean value was concerned out of the listed E-banking service quality dimensions assurance shows the highest mean value which is 3.68 with standard deviation of 0.845. These indicated that the customer feeling was above satisfactory level on this dimension. This means that customers have a confidence in the E-banking privacy and security of the bank; this in turn indicated that the bank has enhancing their customers’ satisfaction by enabling customers feel safe and confident with the E-banking transaction and also due to several controlling method such as pin (password) to log in.
The table 3 above showed that empathy has the mean value of 3.56 with standard deviation of 0.796. This indicated that the customers were satisfied by this E-banking service quality dimension. This shows that bank has giving individual attention for the customer specific needs and also the employees of the bank have treating their customer in a friendly manner. This level of comfort on virtually in the aspects of empathy translates to increased levels of satisfaction amongst the users of the services and serves to encourage the usage of the facilities as intended by the bank.

Further the analysis of the response indicated that tangibility have a mean score of 3.37 with the standard deviation of 0.940. With this perception it is clear that the customers were satisfied by the tangibility dimension of E-banking service quality. This indicated that the bank has deploying its ATM and POS machine at the convenient location and E-banking service devices are easy to use and navigate.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tangibility</th>
<th>Reliability</th>
<th>Responsiveness</th>
<th>Assurance</th>
<th>Empathy</th>
<th>Customer Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>.184</td>
<td>.122*</td>
<td>.725**</td>
<td>.214**</td>
<td>.434**</td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td>.184</td>
<td>.434**</td>
<td>.174**</td>
<td>.209**</td>
<td>.471**</td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td>.122*</td>
<td>.434**</td>
<td>1</td>
<td>.079</td>
<td>.109*</td>
<td>.354**</td>
</tr>
<tr>
<td>Assurance</td>
<td>.725**</td>
<td>.174**</td>
<td>.079</td>
<td>1</td>
<td>.325**</td>
<td>.574**</td>
</tr>
<tr>
<td>Empathy</td>
<td>.214**</td>
<td>.209**</td>
<td>.109*</td>
<td>.325**</td>
<td>1</td>
<td>.454**</td>
</tr>
<tr>
<td>Customer</td>
<td>.434**</td>
<td>.471**</td>
<td>.354**</td>
<td>.574**</td>
<td>.454**</td>
<td>1</td>
</tr>
</tbody>
</table>

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

Source: Own survey, 2020

As it can see from the above table, the result of correlation between customer satisfaction and tangibility showed a positive coefficient of relation of = 0. 434. This result indicated that E-banking service tangibility has positive relationship with customer satisfaction. As the bank has increasing its E-banking services tangibility the customer satisfaction will be increased.

The correlation coefficient between customer satisfaction and reliability is positive with a value of 0.471. This implied that there is a positive correlation between customer satisfaction and reliability of E-banking service, as the bank has increasing its E-banking services reliability the customer satisfaction will be increased.
The correlation coefficient between customer satisfaction and responsiveness has positive value of 0.354. This result shows that responsiveness of E-banking service has positive relationship with customer satisfaction. As the bank has increasing its responsiveness of E-banking services the customer satisfaction will be increased.

The correlation coefficient between customer satisfaction and assurance is positive with a value of 0.574. This implied that there is a positive correlation between customer satisfaction and assurance of E-banking service, as the bank has increasing its empathy of E-banking services the customer satisfaction will be also increased.

Finally result of correlation between customer satisfaction and empathy showed a positive coefficient of relation of = 0.454. This result shows that empathy of E-banking service has positive relationship with customer satisfaction. As the bank has increasing the empathy of E-banking services tangibility the customer satisfaction will be increased.

**Multiple Regression Analysis**

Calculating multiple a multiple regression coefficient and regression equation using two or more independent variable is termed multiple regression analysis. The coefficient of determination (represented by R-squared) can take on any value between 0 and +1. It measures the proportion of the variation in a dependent variable that can be explained statistically by the independent variables (Sauders et al., 2009) as cited by Mesfin (2018).

Multiple regression analysis can also be used to predict the value of a dependent variable given the values of one or more independent variables by calculating a regression equation. Before executing multiple regression analysis, the multiple regression assumption should be considered.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tangibility</th>
<th>Reliability</th>
<th>Responsiveness</th>
<th>Assurance</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td>.184</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td>.122*</td>
<td>.434**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assurance</td>
<td>.725**</td>
<td>.174**</td>
<td>.079</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>.214**</td>
<td>.209**</td>
<td>.109*</td>
<td>.325**</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Own survey, 2020
According to cooper and schindiler (2009) as cited by Sherfedin (2018) a
correlation coefficient that is above 0.8 in explanatory variables is a symptom of
creating multilinearity problem. The correlation matrix table above shows that
there are no variables that have the correlation coefficient above 0.8. Thus, it
possible to conclude there is no multicolinearity problem in the explanatory
variable.

**Linearity**

The second assumption to be tested out is linearity or assumption of linear
relationship observed between two variables. Linearity implies that slope of the
population regression function is constant; thus, non-linearity means, in other
words, that a change in the dependent variable does depend on the value of one
or more of the independent variables (Stock, 2007) as cited in Sherfedin (2018).
The linearity test of the disturbance has been presented in the following figure.

The linearity test on figure 3 above aimed at testing whether the relation
between the dependent variable (customer E-banking satisfaction) and
independent variables (tangibility, reliability, responsiveness, assurance and
empathy) is linear or not. As it is shown on the graph the scatter plot of the
residuals are exactly lie on the linear line end to end. Therefore this result
suggests the relation we are going to predict in the regression result is linear. To
done, again linearity assumption is not violated.

**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 12, 13 and 14 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>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.756(^a)</td>
<td>.572</td>
<td>.566</td>
<td>.54490</td>
</tr>
</tbody>
</table>

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

Source: Own survey, 2020

R-squared was measured the goodness of fit of the explanatory variables in
explaining the variations in customer satisfaction measures of explanatory
variables (tangibility, reliability, responsiveness, assurance and empathy). As clearly described in table 12 adjusted R-square values for the regression model was 0.566. This indicated that the explanatory variables; tangibility, reliability, assurance and empathy in this study explain approximately about 56.6 percent of the variation in the level of customer satisfaction. The remaining 43.4 percent of the variation in the level of customer satisfaction of CBE Afar region branches are explained by other variables which were not included in the model. Therefore, E-banking service dimensions (tangibility, reliability, assurance and empathy) were good explanatory variables of the satisfaction level of the customers’ Commercial bank of Ethiopia in Afar region brachas E-banking services. But it does not mean that all these factors of E-banking service quality have equally significant relation with customer satisfaction level. The results of the multiple linear regression analysis signal that there is variation in the effect of E-banking service quality dimensions on customer satisfaction.

### Table 6
ANOVA Analysis of Variance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>150.714</td>
<td>5</td>
<td>30.143</td>
<td>101.519</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>112.829</td>
<td>379</td>
<td>.297</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>263.543</td>
<td>384</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Source: Own survey (2020)

ANOVA was used to establish the appropriateness of the regression model in giving reliable results. Usually the regression model is deemed appropriate when the confidence level is 95% and above. Table 6 above shows that F-significance value of p<0.001 was established. This means that the regression model has a less than 0.001 likelihood (probability) of giving a wrong prediction. Hence the regression model has a confidence level of above 95% which confirms that the regression model was appropriate and the results are reliable.
Table 7 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 the above table, assurance ($\beta=0.428$, $p<0.01$), tangibility ($\beta=0.313$, $p<0.01$), reliability ($\beta=0.122$, $p<0.01$) and empathy ($\beta=0.073$, $p<0.05$) had the highest impact on customer satisfaction. The largest t values for assurance ($t= 8.496$), tangibility ($t=6.369$), reliability ($t=3.190$) and empathy ($t = 2.037$) and their corresponding low p values ($p<0.01$ and $p<0.05$ for tangibility, reliability, assurance and empathy, respectively) supports the result for assurance, tangibility, reliability and empathy for which there were higher beta coefficients. This means that these four dimensions account for the greatest contributions on the attainment of the customers’ E-banking satisfaction. On the other hand the significance value of responsiveness is .370 that is greater than .05. This indicates it has no significant impact on E-banking customer satisfaction.

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 services quality dimensions, four dimensions (tangibility; $p<0.01$, reliability; $p<0.01$, assurance; $p<0.01$, and empathy; $p<0.05$) have positive and significant effects on customer satisfaction. On the other hand, responsiveness has statistically insignificant influence on customer satisfaction.

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

Similarly, the regression table shows the overall significance/ acceptability of the model from a statistical perspective. As the significance value of F statistics shows a value of (.000), which is less than $p<0.05$. Thus, the model is significant which indicates that the variation explained by the model is not due to chance.

### Table 7
Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T-test</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.044</td>
<td>.142</td>
<td>7.337</td>
</tr>
<tr>
<td>Tangibility</td>
<td>.253</td>
<td>.040</td>
<td>.313</td>
<td>6.369</td>
</tr>
<tr>
<td>Reliability</td>
<td>.115</td>
<td>.036</td>
<td>.122</td>
<td>3.190</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>.030</td>
<td>.033</td>
<td>.034</td>
<td>.898</td>
</tr>
<tr>
<td>Assurance</td>
<td>.311</td>
<td>.037</td>
<td>.428</td>
<td>8.496</td>
</tr>
<tr>
<td>Empathy</td>
<td>.061</td>
<td>.030</td>
<td>.073</td>
<td>2.037</td>
</tr>
</tbody>
</table>

As stated earlier, this study aims to identify the effect of independent variable in the prediction of the dependent variable. Thus, the strength of each predictor (independent) influencing the criterion dependent variable can be investigated via standardized Beta coefficient. The regression coefficient explains the average amount of change in the dependent variable that is caused by a unit change in the independent variable. The larger value of Beta coefficient an independent variable has, bring the more important determinant in predicting the dependent variable.

From the regression function, \( Y = \beta_1 + \beta_2X_1 + \beta_3X_2 + \beta_4X_3 + \beta_5X_4 + \beta_6X_5 \)

Where \( Y \) is the dependent variable - customer satisfaction
\( X_1, X_2, X_3, X_4 \) and \( X_5 \) are the explanatory variables (tangibility = \( X_1 \), reliability = \( X_2 \), responsiveness = \( X_3 \), assurance = \( X_4 \) and empathy = \( X_5 \) are the explanatory variables).

From the above table 14 finding we can develop the following regression model Coefficient analysis shows the relationship between dependent variable and independent variables. According to Sig. value of \( X_1 \) (tangibility), \( X_2 \) (reliability), \( X_4 \) (assurance) and \( X_5 \) (empathy) are statistically significant at 1 percent significant level in agreement with the hypothesis. Which means; tangibility, reliability, assurance and empathy have great contribution to improve customer satisfaction on E-banking service. Whereas the sig. value of \( X_4 \) (responsiveness) is greater than 0.05 and conclude that the variable has no significant impact on customer satisfaction from using E-banking service.

- Tangibility = 0.313 i.e., 100% change in tangibility leads to 31.3% positive change in customer satisfaction level.
- Reliability = 0.122 i.e., 100% change in reliability leads to 12.2% positive change in customer satisfaction level.
- Assurance = 0.428 i.e., 100% change in assurance leads to 42.8% positive change in customer satisfaction level.

Empathy = 0.073 i.e., 100% change in empathy leads to 7.3% positive change in customer satisfaction level.

**Effect of E-banking Service qualities on Customer Satisfaction**

The main objective of the study was to examine the effect of E-banking service quality on customer satisfaction. According to the multiple regression analysis results, each specific objectives of the study is successfully achieved. The results of service quality dimensions in relation to the previous research findings were discussed as follows:

**The Effect of Tangibility on Customer Satisfaction**

The result of this study indicates that tangibility (\( \beta =0.313, \ p<0.01 \)) has a positive and significant effect on customer satisfaction. It implied that the appearance of physical facilities, equipment, personnel, and materials of E-banking service has a positive and significant effect on customer satisfaction.
appearances of E-banking services are attractive, the customer satisfaction will be also increased. This finding is supported by Habtie (2019) found that tangibility has a positive and significant effect on customer satisfaction. This finding is supported by Simon (2016) found that tangibility has a positive and significant effect on customer satisfaction.

The Effect of reliability on Customer Satisfaction

The finding of this study also indicated that reliability (β =0.122, p<0.01) has a positive and significant effect on customer satisfaction. It implied that the ability to perform the promised E-banking service dependably, accurately and performing the service at the designated time has a significant and positive effect on customer satisfaction. As the ability to perform ordered service dependable and accurately increase, the satisfaction of the customer towards E-banking service in CBE Afar region branches will also increase. This finding is supported by Sintayehu (2015) found that reliability has a positive and significant effect on customer satisfaction. This finding is also supported by Sherefedin (2018) found that reliability has a positive and significant effect on customer satisfaction. However, John (2016) indicated that reliability has insignificant effects on customer satisfaction.

The Effect of responsiveness on Customer Satisfaction

The finding of this study also indicates that responsiveness (β =0.034, p<0.05) has insignificant effect on customer satisfaction. It implied that the desire and willingness to assist customers, deliver prompt service and helping customers get when they forward E-banking complaints have insignificant effects on customer satisfaction in CBE Afar region branches. This result is supported by Kassa (2012) as cited by Simon (2016) reported that responsiveness has insignificant effect on customer satisfaction. However, this result is different from results by Simon (2016) reported that responsiveness has a positive and significant effect on customer satisfaction. This finding is different from results by Mayikl (2019) found responsiveness has a positive and significant effect on customer satisfaction.

The Effect of assurance on Customer Satisfaction

Moreover, the result of this study also indicates that assurance (β =0.428, p<0.01) has a positive and significant effect on customer satisfaction. It implied that the ability to convey trust and confidence on E-banking service has a positive and significant effect on the customer satisfaction. As the bank increase their customer trust and confidence on their E-banking service, the customer satisfaction will be also increased. This result is supported by Mayikl (2019) found that assurance has a positive and significant effect on customer satisfaction. This result also supported by Mohammad and Alhamadani (2011) found that assurance has a positive and significant effect on customer satisfaction. However, this result is different from results by Simon (2016), indicates that assurance has a negative and insignificant effect on customer satisfaction.
The Effect of empathy on Customer Satisfaction

The finding of this study further indicated that empathy ($\beta = 0.073$, p<0.05) has a positive and significant effect on customer satisfaction. It implied that provision of caring, individualized attention to customers and treating customer in a friendly manner has a positive and significant effect on the customer satisfaction. As individualized attention to the E-banking users’ increases, the customer satisfaction towards the E-banking service will be also increased. This result is supported by Mayikl (2019) found that empathy has a positive and significant effect on customer satisfaction.

Conclusion

The descriptive analysis shows the level of customer satisfaction for E-banking is above satisfactory level with mean value of 3.42 on a 5 point likert scale. The mean value of the variables was tangibility (3.37), reliability (3.36), responsiveness (3.32), assurance (3.68) and empathy (3.56). The study found that, as modernity, easy to use and visual appearance of E-banking service devices (tangibility) increases, the customer satisfaction towards the E-banking service increase and vice versa. This is because of a positive and significant associate of tangibility dimensions of E-banking with customer satisfaction.

The study found that as ability to perform ordered service dependable and accurately (reliability) increase, the satisfaction of the customer towards E-banking service in CBE Afar region branches also increase and vice versa. Thus, the reliability of E-banking service has a positive and significant associate with customer satisfaction. This study also concluded that, E-banking service reliability has strong positive and significant effect on customer satisfaction.

The study found that, as the ability to convey trust and confidence (assurance) increases, the customer satisfaction towards the E-banking service also improved and vice versa. This is because of a positive and significant associate of E-banking service assurance with customer satisfaction. The researcher also concluded that, the assurance of E-banking service has strong positive and significant effect on customer satisfaction.

The study also found that, as individualized attention to the E-banking users (empathy) increases, the customer satisfaction towards the E-banking service increase and vice versa. This is because of a positive and significant associate of empathy dimensions with customer satisfaction.

The finding of the study revealed that tangibility, reliability, assurance and empathy have a positive and significant effect on customer satisfaction. However, responsiveness has insignificant effect on customer satisfaction. In general, assurance has high positive and significant effect on customer satisfaction followed by tangibility, reliability and empathy.

The model summary results confirm that results generated by the E-banking service quality dimensions explain 56.6% ($R^2=0.566$) variation in customer satisfaction and ANOVA test confirmed that the model is significant at $P<0.01$. 
level. As a result, the researcher concluded that E-banking service quality has positive and significant effect on customer satisfaction.

The interview with branch business managers (Dupty, Semera, Logia and Ardi branches) indicated that the bank has a challenge related with infrastructure like breakdown of network and power supply, and also problem with customers’ attitude and knowledge in using E-banking.

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