Assessing the Impact of Core Banking and Service Quality on Customer Satisfaction: Case of the Commercial Bank of Ethiopia in Bale Robe Town

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Abstract
This work aims to assess the effects of core banking and service quality on customer satisfaction in the commercial bank of Bale Robe town in Ethiopia. Stratified sampling technique was used to select a sample of 350 customers; of this number, 310 customers were chosen. A questionnaire consisting of 5-level Likert scale statements was used to collect the primary data of the work. Descriptive and inferential statistics were used for the data analysis. From the findings, there is strong correlation between all service quality dimensions and customer satisfaction in the selected bank. Also, there is strong correlation between core banking and customer satisfaction. The three service quality dimensions: reliability, assurance, and empathy influenced customer satisfaction at the bank positively and significantly; the rest of the two dimensions (responsiveness and tangibility) did not influence customer satisfaction. Core banking also influences customer satisfaction positively and significantly. The bank should concentrate on the two service quality dimensions more to improve customer satisfaction.

Keywords: core banking, customer satisfaction, service quality, Ethiopia.
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1. Introduction
Today’s business world is active and changes rapidly due to technological innovation, high knowledge and customers’ demand. Business institutions, mostly the 21st century banking industry, work in a sophisticated and competitive environment with dynamic situations and highly unexpected economic conditions. Information and Communication Technology (ICT) is responsible for the change taking place globally. As a result of the prevailing advancement in information and communication technology, the banking industry worldwide is now operating in an unparalleled kind of competition backed up by modern information and communication system. E-commerce is now a motto for companies through the years with high knowledge about the use of computers and internet. The Internet is responsible for e-commerce growth (Bhaskar & Tewodros, 2011).

The use of information and communication is very important to the banking sector in today’s business world and internet is the main medium where all monetary, banking and business activities take place. The proper application of ICT enhances organizations to have comparative advantage; it helps organization to achieve their planned objectives and leads to high performance and efficiency. “Technology has opened up new markets, new products, new services and efficient delivery channels for the banking industry. Online electronics banking, mobile banking, and internet banking are just few examples”, (Dangolani, 2011, p. 13). Due to this, a number of banks in different countries now use advanced technologies to be able to meet the increasing tastes and choices of their customers.

According to Capital Ethiopia (2012), “the new IT facilities make banks to intensify and enlarge their dealings with credit card producers like Visa and Master Card and also help them to activate new mobile and Internet banking services. This would make consumers to spend less time in banks and make wider preferences of banking media and services” (para 5). The banking sector is very important in a nation’s economy. It speeds up economic growth as it encourages already available or future savings and gives credit to areas involved in trade and business. Banking industry is known for being highly competitive and ever-changing customer demands. Therefore, they have to adjust to the dynamic environment. Banks need to employ different techniques to become the banks chosen by their customers. It is very important for banks to respond fast to the numerous demands of their customers by bringing in different products liked by them. Technology is an added advantage for them to provide key customers’ products and delivery channels timely (Biju, evandhiran & Sreehari 2012). In agreement, Dangolani (2011) contends, “It is information technology which enables banks in meeting such high expectations of the customers who are more demanding and are also more techno-savvy compared to their counterparts of the yester years, they
demand instant, anytime and anywhere banking facilities” (p. 14).

1.1. Statement of the Problem
Meeting customers’ need is the first priority and aim of any business organization. With customers’ satisfaction, corporations obtain greater sales, higher profit and market share. Customer satisfaction makes companies to have customers that trust them and makes them to meet their set goals. It is necessary for firms to meet their customers’ need fast to obtain their goals quickly. Banks as a business institution care greatly for their customers to make them loyal to them, and stay with them. Ethiopian banks do not take care of their customers. That is why they make use of outdated and old technologies that cannot satisfy and meet customers’ need, making them to change banks.

Levesque and McDougall (1996) verified the belief that constant poor experiences of customers in banks caused by low quality service result in low customers’ satisfaction and unwillingness to refer others to the banks. This is the case of the commercial banks in Ethiopia. Though CBE has been making available a lot of banking services since 1942, it is inefficient in providing satisfaction for its customers, because of its low quality service caused by lack of modern and advanced technologies.

Commercial Bank of Ethiopia used core-banking technology in 2004 for the incorporation of the services delivered in all of its branch banks and improvement of the quality of its services. The use of this technology has helped the bank greatly. These benefits are seen in the bank in Bale Robe town. The study aims to analyze the influence of core banking and service quality on meeting customers’ need.

1.2. Research questions
The study answers the following questions related to CBE of Bale Robe Town:
- Do these changes occur after the use of core banking?
- Are customers satisfied with the use of core banking service?
- Are customers satisfied with the service quality?
- What is the degree of customers’ satisfaction?
- How can the services be improved?

1.3. Scope of the study
This work mainly looks at the changes that came with the use of core banking in Ethiopian banks, focusing only on CBE in Bale Robe Town, and excluding other towns having CBC.

2. Research methodology
The study used primary data collected using semi structured interview and a questionnaire. The questionnaire was design based on previous empirical literature and its consistency was pre-test using Cronbach Alpha. The component, core banking and service quality impact on customer satisfaction, consisting of several statements measured using a 5-point Likert scale which varies: from 1 [strongly disagree], to 5 [strongly agree].

Target Population, Sample and Sampling Technique
The study’s population was selected from customers of Commercial Bank of Ethiopia in Bale Robe town. The sampling method used for the target population was simple random sampling. In random sampling, each individual has an equal chance of being chosen which is important for the external validity of the study (Creswell, 2009).

Accordingly, from the total study population sample size of 310 respondents was collected as follows:
\[ n = \frac{N}{1+N(e)^2} \]
Where, \( N=350 \) and \( e=2\%
Then, \( n = 307 \). Consequently a sample of 310 was used.

2.1. Method of data analysis
This research used IBM SPSS version 20.0 [Statistical Product and Service Solutions (Hejase & Hejase, 2013, p. 58)]. The data using SPSS version 20.0 were analyzed; by descriptive statistics. Descriptive analysis was used because it is simple and can be easily used to infer. The data were evaluated with means and standard deviations, as well as, percentages, and frequency tables. The correlations between variables were evaluated with inferential statistics. This research considered “Customer Satisfaction” to be the dependent variable while service quality service quality consisting of reliability, responsiveness, assurance, empathy, and tangibles and core banking were the independent variables.
3. Results and Discussion

Descriptive Statistics of the Complete Scores of Service Quality Dimensions

The score of Responsiveness is the highest (3.80), next to assurance (3.78). The least score was found in Core-banking (2.05); this indicates there is need to focus more on core-banking to satisfy customers.

The general statement about core banking is positive and satisfactory.

Table 1. Descriptive Statistics

| Dimension         | N   | Minimum | Maximum | Mean  | Std. Deviation |
|-------------------|-----|---------|---------|-------|----------------|
| Tangibility       | 31  | 2       | 4       | 3.49  | .804           |
| Realibility       | 31  | 2       | 5       | 3.48  | .712           |
| Responsiveness    | 31  | 2       | 5       | 3.80  | .951           |
| Assurance         | 31  | 2       | 5       | 3.78  | .940           |
| Empathy           | 31  | 1       | 5       | 2.47  | 1.064          |
| Core_Banking      | 31  | 1       | 5       | 2.05  | 1.066          |

Valid N (list wise) 31

3.1. Inferential Findings

Reliability test was done using Cronbach alpha to know if the items in the data instrument were consistent. The reliability coefficient used made the researchers to know if the data instrument was accurate, reliable and consistent; its coefficient differs between 0 and 1 (Tavakol and Dennick, 2011). To Bryman and Bell (2011), internal reliability greater than 0.80 is acceptable; and others consider internal reliability as excellent if the Cronbach alpha is greater than 0.9; between 0.8 and 0.9 is good; between 0.7 and 0.8 is acceptable; between 0.6 and 0.7 is questionable; and others less than 0.5 can be caused by low number of items, poor inter-connections between items or heterogeneous constructs.

Table 2. Descriptive Statistics

| Statement                        | N   | Minimum | Maximum | Mean  | Std. Deviation |
|----------------------------------|-----|---------|---------|-------|----------------|
| Employees of this bank satisfy my need | 310 | 2       | 5       | 3.87  | 1.015          |
| The employees of this bank are competent professionally | 310 | 2       | 5       | 3.85  | 1.039          |
| I am satisfied with this banker competent profit | 310 | 2       | 5       | 3.94  | .877           |
| I am satisfied with the employees’ approach to customers. | 310 | 1       | 5       | 2.05  | 1.066          |
| Everyone is satisfied with core banking | 310 | 2       | 5       | 3.98  | .883           |
| Valid N (listwise)               | 310 |         |         |       |                |
3.2. Pearson Correlation analysis

Pearson correlation was used to identify the correlations between service quality dimensions and customer satisfaction, and between core banking and customer satisfaction.

Table 4 shows the Pearson correlation results between service quality dimension and core banking.

| Constructs          | Number of items | Cronbach's Alpha |
|---------------------|-----------------|------------------|
| Tangibility         | 5               | 0.894            |
| Reliability         | 3               | 0.701            |
| Responsiveness      | 4               | 0.921            |
| Assurance           | 4               | 0.940            |
| Empathy             | 5               | 0.956            |
| Core Banking        | 4               | 0.765            |
| Customer satisfaction | 5           | 0.823            |

Table 4. Correlations

|        | TANGIBILITY | REALIBILITY | RESPONSIVENESS | ASSURANCE | EMPATHY | CORE_BANKING |
|--------|-------------|-------------|----------------|-----------|---------|--------------|
| Pearson Correlation | 1          | .858**      | .831**         | .847**    | .376**  | .582**       |
| IBILIT Sig. (2-tailed) | .000       | .000        | .000           | .000      | .000    | .000         |
| REAL   |             |             |                |           |         |              |
| Pearson Correlation | .858**     | 1           | .862**         | .835**    | .386**  | .583**       |
| IBILIT Sig. (2-tailed) | .000       | .000        | .000           | .000      | .000    | .000         |
| RESP   |             |             |                |           |         |              |
| Pearson Correlation | .831**     | .862**      | 1              | .864**    | .284**  | .421**       |
| ONSI   |             |             |                |           |         |              |
| Pearson Correlation | .847**     | .835**      | .864**         | 1         | .259**  | .434**       |
| VINE   |             |             |                |           |         |              |
| Pearson Correlation | .000       | .000        | .000           | .000      | .000    | .000         |
| SS     |             |             |                |           |         |              |
| Pearson Correlation | .376**     | .386**      | .284**         | .259**    | 1       | .578**       |
| EMPY   |             |             |                |           |         |              |
| Pearson Correlation | .582**     | .583**      | .421**         | .434**    | .578**  | 1            |
| E      |             |             |                |           |         |              |
| Pearson Correlation | .000       | .000        | .000           | .000      | .000    | .000         |
| N      |             |             |                |           |         |              |
| EMPA   |             |             |                |           |         |              |

Table 5. Model Summary.

| Model | R    | R Square | Adjusted Square | R | Std. Error of the Estimate |
|-------|------|----------|-----------------|---|---------------------------|
| 1     | .740a| .548     | .547            | .417|                           |

a. Predictors: (Constant), CORE_BANKING

3.3. Regression Analysis

To know the extent to which core banking and service quality affects customer satisfaction, regression model was used for the test. Coefficient of determination-R is the measurement of the difference in the mean of
dependent factor in relation to the independent or predictor factor (Hair et al., 1998). Higher value of R square marks the strength of the regression equation.

**Impact of core banking on customer satisfaction model**

Regression model for service quality model

Table 5, reveals that the value of $R^2$ is 0.548 the independent factor (core banking) is responsible for 54.7% of the difference in customer satisfaction. 54.7 percent of the difference in customer satisfaction is due to core banking, and other factors not yet looked into, accounting for 45.3 percent.

Table 6, reveals that core banking positively and significantly affects customer satisfaction at beta value of 0.740 and 95% confidence level ($p < 0.05$).

| Model | Unstandardized Coefficients | Standardized Coefficients | t | Sig. |
|-------|-----------------------------|---------------------------|---|------|
|       |                             |                           |   |      |
| (Constant) | .739                      | .147                      | 5.035 | .000 |
| CORE_BANK | .900                      | .047                      | .740 | 19.328 | .000 |

a. Dependent factor: CUST_SATISFACTION

**Effect of service quality on customer satisfaction**

Regression model used for service quality

Table 7, reveals that the value of $R^2$ is 0.872 the independent factor (service quality) is responsible for the 0.870% of the difference in customer satisfaction. 0.870% of the difference in customer satisfaction is due to service quality and other factors not yet looked into, accounting for 13.0 percent.

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|---|----------|--------------------|---------------------------|
|       | .934a | .872     | .870              | .223                      |

a. Predictors: (Constant), EMPATHY, ASSURANCE, CORE_BANK, TANGIBILITY, REALIBILITY, RESPONSIVINESS

Regression model for Coefficients

The inconsistent coefficients show the extent at which the dependent factor differs from the independent factor, all things being constant. The beta coefficients with significant p value < 0.05 show the rate at which SERVQUAL dimensions (tangibility, responsiveness and assurance) positively affect customer satisfaction and reliability and empathy negatively affect customer’s satisfaction.

**4. Discussion of Findings**

The study investigates the effects of core banking and service quality on customer satisfaction in CBE of Bale Robe Town. Questionnaire was used to collect data from the bank’s customers. From the results, responsiveness has the highest score next to assurance. The least score was found in core-banking, meaning more work should be done on it to improve customer are satisfied with core banking. There is a positive and significant correlation between service quality and core banking. The highest correlation was found between reliability and core banking, while the lowest was between responsiveness and core banking. Service dimensions like tangibility, responsiveness and assurance positively affect customer satisfaction and reliability and empathy negatively affect customer’s satisfaction.

**5. Conclusion**

The study looks at the effects of core banking and Service quality on customer satisfaction in CBE of Bale Robe town. The bank’s customers were satisfied with core banking and five services Quality dimensions (tangibility, reliability, responsiveness, assurance and empathy). The customers were most satisfied with the assurance dimensions of service quality. They were not satisfied with responsiveness dimensions of service quality. Core banking and all service quality dimensions (tangibility, assurance, empathy, Responsiveness and reliability) are positively and significantly connected to customer Satisfaction. Tangibility, assurance and responsiveness have positively affect customer satisfaction. Core banking also positive and significant impact on customer satisfaction, the study also indicates that, customers are satisfied by core banking system of the bank. From the finding of this study the researcher concludes that core banking has positive and significant relationship with customer satisfaction. And also core banking positively and significantly affects customer satisfaction.
6. Recommendations
From the findings, the following suggestions are given:

1. The bank managers should help customers to be reliable, fulfill their promise, be timely in rendering their services, solve customers’ problems, and insist on error free record.
2. If customers cannot have confidence on the banking services, talking about the good will of the bank is useless, the bank should care for its customers to obtain its goals.
3. Customers are very important for the success of any business. Empathy dimension was the most important factors influencing customer satisfaction. The customers of the banks are not satisfied with empathy dimensions. Therefore, customers should be accorded great respect, be given serious attention and be friendly to them.
4. Also, the bank should try to reduce network problem.

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