

# Service Quality and Customer Satisfaction: An Empirical Investigation on Public Sector Banks in Odisha

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**Abstract-** *The emergence of liberalization and globalization opened a new paradigm of banking system in India. Now a days, Banks have to deal with many customers and render various types of services to its customers and if the customers are not satisfied with the services provided by the banks then they will defect which will impact economy as a whole. It has become imperative for both public and private sector banks to perform to the best of their abilities to retain their customers by catering to their needs. Many a times it happens that the banks fail to satisfy their customers, which can cause huge losses for banks and there the need of this study arises. In light of this, the present study focuses on the issue of assessment of service quality of Public sector banks in catering to the need of rural masses of the coastal districts of Odisha i.e., Balasore and Bhadrak. This paper used the popular multi-itemed rating scale namely SERVQUAL (developed and modified by Parasuraman et al in 1985, 1988, 1991 and 1994) to assess the quality of service rendered by the selected banks. Thereafter, multiple regression analysis is used to anticipate the impact of the quality dimensions, viz. tangibility, reliability, responsiveness, assurance and empathy on customer satisfaction.*

**Keywords-** *Service quality; SERVQUAL; Customer Satisfaction; Tangibility; Reliability; Responsiveness; Assurance*

## 1. INTRODUCTION

Banking in India started in the year of 1786 with “The General Bank of India”. Next came Bank of Hindustan and Bengal Bank. The East India Company established Bank of Bengal in 1809, Bank of Bombay in 1840 and Bank of Madras in 1843 as independent units and called them as Presidency Banks. These three banks were amalgamated in 1920 to form the Imperial Bank of India. Until the establishment of RBI in 1935, the Imperial Bank had been effectively discharging certain central banking functions. Finally Reserve Bank of India came in 1935 and formally took over the responsibility of regulating the banking sector in India. In 1955, The Imperial Bank of India was nationalized with extensive banking facilities on a large scale especially in rural and semi-urban areas. It formed State Bank of India to act as the principal agent of RBI to handle banking transactions of the Union and State Governments all over the country. The major nationalization process was carried out in 1969 with the nationalization of 14 major commercial banks. Again in 1980, seven more banks were nationalized. At that time Banks in India were even more conservative, inward looking, and concerned with their profit. So to say Banks at that time failed to track customer’s need and to establish a long term enduring customer relationship. The advent of Indian Financial & Banking Sector Reforms after 1991 and implementation of Narsimah Committee Report brought a new competition in the form of new Private and Foreign Banks, who brought along with them a high technology – banking matching with international standards. This made traditional Public sector Commercial Banks to wake from

their splendid isolation and found themselves in a highly competitive and rapidly changing environment with competition becoming fierce day by day. This necessitates public sector banks to build up competitiveness through enhanced service quality for making the banks more market oriented and customer friendly. Now a days service quality is not only needed for success, but in some cases, need it for survival. Conceptually service quality is defined as how well the service meets or exceeds the customer expectation on a consistent basis. The difficulty however, is that service quality unlike the product quality, is more abstract and elusive because of features unique to services : intangibility, inseparability, heterogeneity and perishability. To overcome this difficulty, Parasuraman et al, Zeithmal and Berry (1988) have developed a methodology known as SERVQUAL. It is widely used within service industries to understand the perceptions of target customers regarding their service needs and to provide a measurement of the service quality of the organization. It measures the gap between customer expectations and experience. Those aspects were later reduced to five constructs- tangibles, reliability, responsiveness, assurance and empathy.

## 2. REVIEW OF LITERATURE

Customer satisfaction is an important theoretical as well as practical issue for marketers and consumer researchers. It may be considered as essence of success in the present highly competitive scenario. A number of studies are available on service quality and level of satisfaction both in India and abroad. A brief the review of these related

studies have been made in the following paragraphs to identify the necessity of the study. The studies (Gronroos, 1982); Lewis and Booms, 1983) suggested that service quality stems from a comparison of customers' expectations with seller's actual service performance. A broad-based study conducted by Parasuraman et al. (1985) reinforced the idea that service quality is a function of customers' expectations and performance gap. Several authors have also articulated different attributes that the customers use as criteria in evaluating quality of services. Lehtinen (1982) found three kinds of quality: physical quality i.e. physical aspects associated with the service such as equipment and building; corporate quality i.e. firm's image or reputation in rendering services; and interactive quality, which indicates interaction between service personnel and customers. Berry et al. (1997) suggested four essential approaches of quality of services. It includes: transaction surveys, customers' complain comments and inquiry, total market survey and employee survey. East (1997) opined that the customer satisfaction is a major outcome of marketing activity whereby it serves as a link between the various stages of consumer buying behaviour. Realizing the role played by public sector commercial banks in regard to the service quality, Saraiya Committee (1972) suggested seventy seven recommendations for improvement of customer services. Talwar Committee (1975) viewed that customer service is a dynamic concept and recommended that the bank should assess and reassess the customers' perceptions about bank services. In this respect, Goiporia Committee (1991) emphasized on friendly banker customer relationship. Many of the recommendations of this committee were implemented which include introduction of attractive term deposit schemes, fixation of customer services indices and so on. Global competition continues to heat up in markets around the world and emerging technologies continue to empower customer with more market knowledge and wider choices. As such, quality of service will increasingly become the pivotal determinants on a sustained basis. Moreover, conventional marketing will increasingly appear as a ticket to enter the competitive arena. In this context, Parasuraman (2000) opined that superior customer service and marketing excellence are the two sides of the same coin. With the current change in the functional orientation of banks, Kumar (2008) observed that the main driver is changing customer needs and expectations. The customers in urban India no longer want to wait in long queues and spend hours in banking transactions. Lenka, Suar, and Mohapatra (2009) in a case study of Orissa state analysed service quality of Indian commercial banks fosters customer loyalty. The paper found that better human, technical and tangible aspects of service quality of the bank branches increase customer satisfaction. Human aspects of service quality were found to influence customer satisfaction more than the technical and tangible aspects. With this backdrop an analysis has been made to examine whether the increased competitive pressure has been leading to increased efficiency in the public sector

commercial banks in general. An empirical study has, therefore, been undertaken to assess the nature of services rendered by the public sector banks in the area under study.

### 3. RATIONAL OF THE STUDY

This study has important implications for bankers and academicians alike, as it will provide important insight into the dynamics of customer satisfaction with service quality of public sector banks, operating in Rural parts of Odisha.

### 4. OBJECTIVES OF THE STUDY

1. To evaluate the service quality of Public sector commercial banks in Odisha.
2. To Analyze customer satisfaction level in Public Sector Commercial Banks in Odisha.
3. To suggest remedies for improvement in the quality of service of Public Sector commercial banks.

#### 4.1 HYPOTHESIS

In order to achieve these objectives, following hypothesis are formulated:

- H<sub>0</sub>: There is a significant relation between customer satisfaction and dimensions service quality of Public sector commercial banks in Odisha.
- H<sub>1</sub>: There is no significant relation between customer satisfaction and dimensions of service quality

### 5. RESEARCH METHODOLOGY

The study is analytical in character and seeks to examine the service quality of Public sector commercial banks in Odisha. For this 200 sample respondents from public sector banks were selected using simple random sampling method and served a questionnaire similar to Parasuraman et al. This questionnaire contains 22 statements and measures both expectation and perceptions of consumers with respect to the service on a scale of 1 to 7 i.e., from strongly disagree to strongly agree and gap score is calculated by deducting expectation from perception. The collected data are analysed with the help of multiple regression analysis for deriving meaningful conclusions out of the study.

### 6. DATA ANALYSIS AND FINDINGS

#### 6.1 DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Data presented in Table-1 in Appendix shows that, out of 200 respondents 125 (62.5 %) are male and 75 (37.5%) are female customers. In terms of age group, 90(45%) respondents belong to the age group of 46-60 followed by 45 (22.5%) to age between 31-45, 35 (17.5 %) below the age of 30 and only 30(15%) respondents are above 60. Educational status of the respondents indicates that highest number of graduate respondents i.e., 90(45 %) out of the total 200, followed by 60 (30%) post graduates, 40(20 %) secondary and only 10(5%) are educated upto primary

level .In terms of occupation, salaried class formed the highest portion with 95 (47.5%) respondents, 65(32.5%) belong to both business and farmers group, and 40 (20%) of the respondents belong to professionals.

## 6.2 REGRESSION ANALYSIS

Regression models are used to predict a variable from one or more than one variables. The Regression Analysis is used in the study to predict the extent of dependence of various factors as its explanatory variable. This was tested by using the first result of the regression analysis i.e. ANOVA (F-test). Further, R square value of the regression analysis has been made to show the extent to which the explanatory variables explain the dependent factor. The second result of the regression analysis i.e. t-test along with significant value (p-value) indicates the most significant explanatory variable that influences the explained/ dependent factor. Along with the t-test, the multicollinearity test is also used to measure the co-linearity among the explanatory variables. After assessing the service quality, effort has been made to analyze the degree of satisfaction of customers relating to each dimensions of service quality viz. tangibility, reliability, responsiveness, assurance and empathy. For this, the multiple regression analysis is used to determine the level of significance of the variables regarding customer's satisfaction with their banks.

The basic model is as follows:

Customer satisfaction=f(Gap score in Reliability, Gap score in Responsiveness, Gap score in Assurance, Gap score in empathy, Gap score in Tangibility)

For public sector banks :

$$CS = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

CS= customer satisfaction with public sector banks

X<sub>1</sub>= gap score in tangibility

X<sub>2</sub>= gap score in reliability

X<sub>3</sub>= gap score in responsiveness

X<sub>4</sub>= gap score in assurance

X<sub>5</sub>= gap score in empathy

There “ $\alpha$ ” is constant and “ $\beta$ s” are coefficients to estimate and “e” is the error term. Here customer satisfaction is the dependent variable and reliability, responsiveness, assurance, empathy and tangibles are independent variables. From the ANOVA test it shows that the table sig. value 0.05 is greater than the calculated sig. value 0.000. it means that there is a significant correlation between the dependent and independent variables, i.e., customer satisfaction depends on gaps quality dimensions in different public sector banks in Odisha. But it does not mean that all the factors of service quality gap have significant correlation with customer satisfaction level. The overall predictability of the model is shown in the table-5 in appendix. The adjusted r<sup>2</sup> value of .574 indicates that about 57% of the factors are responsible for customer satisfaction in public sector commercial banks. We know that if tolerance is less than 0.20 or 0.10 / a VIF is 5 or 10 and above it indicates a multicollinearity problem (O'Brien 2007). But in this case, as shown in the Table 5, the value of tolerance of all items is more than 0.20 and the value of VIF of all items are less than 5. This suggests that no

multicollinearity exists among the explanatory variables which explained the explained factor i.e. Service Quality Parameters.

From the above analysis we can develop the following regression model

$$CD_{PUBLIC} = 1.665 + 0.370X_1 + 0.025X_2 - 0.825X_3 + 0.018X_4 - 0.030X_5$$

(0.103) (0.093) (0.036) (0.069) (0.030) (0.033)

Result of coefficient analysis presented in Table-6 in Appendix the relationship between dependent and independent variables. According to Sig. value, in public sector banks tangibility and responsiveness have significant connection with customer satisfaction level which is fulfill at 1 per cent level, as table sig value of 0.05 is greater than the calculated Sig. value of 0.000 each. But the calculated sig value of reliability, assurance and empathy is more than the table Sig. value. So these factors have some impact on service quality but are not significant. Again the above regression equation indicates that the gap in responsiveness and empathy are negatively related with customer satisfaction in public sector banks. Thus now the findings can be interpreted as under:

X<sub>1</sub>(Gap in Tangibility) = 0.370, i.e., 100% change in tangibility leads to 37% change in customer satisfaction level.

X<sub>2</sub> (Gap in Reliability) = 0.025, i.e., 100% change in reliability aspects will lead to 2.5% change in customer satisfaction level

X<sub>4</sub> (Gap in assurance) = 0.018, i.e., 100% change in assurance aspects leads to 1.8% change in customer satisfaction level.

## 7. CONCLUSION

From the statistical analysis it is observed that there is a significant relation between customer satisfaction and dimensions of service quality in public sector commercial Banks in Odisha. For this null hypothesis is accepted by discarding the alternative hypothesis. In terms of impact of quality dimensions on customer satisfaction it is found that the gap score in tangibility, reliability and assurance have a significant impact on customer satisfaction. Furthermore it is also found that 100% change in tangibility aspects of a Public sector Bank leads to 37% change in customer satisfaction level. Similarly 100% change in reliability aspects will lead to 2.5% change in customer satisfaction level and finally 100% change in assurance aspects leads to 1.8% change in customer satisfaction level.

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## APPENDIX

### SCALE ITEMS

- V1.Bank having modern-looking equipment  
V2.Visually attractive physical facilities  
V3.Bank employees’ dress and neatness in appearance  
V4. Visually attractive materials (statements or passbook) associated with bank’s service  
V5.When something is promised by a certain time doing it  
V6.When there is a problem, showing sincere interest in solving it  
V7.Performing the service right first time  
V8.Providing the service by the time promised  
V9. Accurate/error-free record keeping  
V10.Telling the customer exactly when the service will be performed  
V11.Receiving prompt service  
V12.Employees who are always willing to help customers  
V13. Employees who are always ready to respond to customer requests  
V14. Employees who instill confidence in customers  
V15.The feeling that you are safe when conducting transactions with the bank’s employees  
V16. Employees who are always courteous/ polite  
V17. Employees having knowledge to answer customer’s question  
V18. Employees who give individual attention to customers  
V19. Operating hours convenient to all customers  
V20. Employees who give personal attention to customers  
V21.A bank which has your best interests at heart  
V22. Employees who understand the specific needs of their customers  
V23: Overall Customer Dissatisfaction

**Table-1**  
**Demographic Profile of the Respondent**

Demographic Profile of the Respondents							
Particulars		Frequency	Percentage	Particulars		Frequency	Percentage
Gender			Qualification				
Female	75	37.5	Primary	10	5		
Male	125	62.5	Intermediate	40	20		
Total	200	100	Graduate	90	45		
Age			Post graduate	60	30		
Below 30	Total	200	100				
30-45	45	22.5	Occupation				
46-60	90	45	Salaried	95	47.5		
Above 60	30	15	Professional	40	20		
Total	200	100	Business	65	32.5		
Source: Survey			Total	200	100		

### Assessment of Service Quality

**Table-2**  
**Calculation of SERVQUAL scores in case of Public Sector Banks**

Dimensions	Statement	Expectation score	Perception score	Gap score $GS_{Si}=E_i-P_i^*$	Average for dimension
<b>Tangibility</b>	V1	4.34	3.12	1.22	<b>1.51</b>
	V2	4.19	3.06	1.65	
	V3	5.17	3.21	1.71	
	V4	4.83	3.86	1.50	
<b>Reliability</b>	V5	5.52	3.91	1.61	<b>1.47</b>
	V6	5.68	3.82	1.86	
	V7	5.30	3.76	1.54	
	V8	5.23	3.81	1.42	
	V9	5.86	4.91	0.95	
<b>Responsiveness</b>	V10	4.67	3.91	0.76	<b>1.22</b>
	V11	4.92	3.76	1.16	
	V12	4.82	3.35	1.47	
	V13	4.92	3.41	1.51	
<b>Assurance</b>	V14	4.46	3.21	1.25	<b>1.03</b>
	V15	5.68	5.24	0.44	
	V16	5.24	3.61	1.63	
	V17	5.76	4.96	0.80	
<b>Empathy</b>	V18	4.89	3.61	1.28	<b>0.96</b>
	V19	4.48	3.93	0.55	
	V20	4.82	3.42	1.40	
	V21	4.06	3.36	0.70	
	V22	4.12	3.21	0.91	
<b>Unweighted average SERVQUAL score</b>					<b>1.24</b>

Source : Survey

\* Here,  $GS_{Si}$  represents gap score for statement  $i$ ,  $E_i$  is expectation for statement  $i$ ,  $P_i$  is perception for statement  $i$ , and  $i = 1,2,3,-----,22$ .

**Table-3**  
**Model Summary (Multiple Regression)**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.765 <sup>a</sup>	0.585	0.574	0.14755

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

Source: SPSS Regression Result of the field work

**Table – 4**  
**ANOVA (Multiple Regression)**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.944	5	1.189	54.61	.000 <sup>b</sup>
Residual	4.224	194	0.022		
Total	10.168	199			

a. Dependent Variable: Customer satisfaction with Public sector Banks

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

**Table – 5**  
**Regression Coefficients (Service Quality Parameters)**

Parameters	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.665	0.103		16.219	0.000		
Gap score in Tangibility	0.37	0.093	0.309	3.955	0.000*	.561	1.782
Gap score in Reliability	0.025	0.036	0.033	0.686	0.494	.474	2.111
Gap score in Responsiveness	-0.825	0.069	-0.984	-12.022	0.000*	.449	2.229
Gap score in Assurance	0.018	0.03	0.032	0.592	0.554	.479	2.089
Gap score in Empathy	-0.03	0.033	-0.043	-0.884	0.378	.481	2.185

\*Significant at 1 per cent level

a. Dependent Variable: Customer satisfaction with Public sector Banks