

Customer Perceptions on Service Quality of Private Sector Commercial Banks in India: The Principal Component Analysis

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Abstract: *In today's world, with increased competition, service quality has become one of the most popular areas of academic research. The purpose of this study is to examine the factors influencing service quality variables and identify the most important variables responsible for the overall satisfaction of the customers. The research design in this study consists of exploratory in nature whereby different factors influencing various service quality variables in the banking sector have been extracted from the literature review and tested on a sample size of 200 customers having at least an account in the banks. The SERVQUAL model is used to assess service quality and customer perceptions. Factor analysis technique have been applied to find out the most relevant factors responsible for achieving overall satisfaction of customers. The results were discussed and analysed so as to get an indication of the relevant factors influencing various service quality variables in banking sector particularly private sector commercial banks operating in Goalpara District of Assam.*

Keywords: Service quality, Factors affecting, private banks, Factor Analysis, SERVQUAL.

1. Introduction

The banking sector in India plays a significant role and is rapidly growing over the last few decades. There has been a shift in business focus, from transactional to relationship marketing, where the customer is at the centre of all business activities. The organizations have been trying to restructure their processes around the needs of their strategically significant customers. The critical driver of such a profound shift towards customer orientation is the realization that customers are the business assets if managed effectively and efficiently. However, offering quality products and services is essential to develop long-term customer relations and for improving marketing productivity and growth. Banks provide a variety of services ranging from opening a savings account, current account, internet banking, ATM facility, retail banking, financial consulting, providing loans, locker facilities, Demat facility, foreign money transfer etc. The banks have to satisfy customers belonging to all different classes. Hence, a study on the factors influencing service quality of private sector commercial banks is very imperative in the present context considering the regional performance. The analysis of service quality from the customers standpoint will provide the banks with a quantitative and qualitative estimate of their services as perceived by their customers (Kumar et al., 2010; Naeem and Saif, 2009). The dimensions of SERVQUAL model is considered as base in this study to assess the service quality and customer perception as the model of service quality identifies the reasons for any gaps between customer expectations and perceptions (Lee and Hwan, 2005).

2. Review of Literature

The service quality in the banking sector has been a widespread research topic in the present scenario. A few studies have been reviewed in this section to understand the research gap. Gefen (2000) opined that service quality is the discrete comparison between the quality of service that they want to receive and they actually get. Bahia and Nantel (2000) conducted research to develop a valid measurement of perceived service quality in the retail banking sector in Canada and proposed a scale, named Bank Service Quality (BSQ). The BSQ was an extension of the original ten dimensions of the model of Parasuraman et al. (1985). In addition, Bahia and Nantel (2000) incorporated additional items for courtesy and ease of access, as proposed by Carman (1990). Rootman et al. (2007) conducted a study on variables influencing the Customer Relationship Management (CRM) of banks in the Nelson Mandela metropolitan area in South Africa. The data were collected through a self-developed structured questionnaire. All the items considered for the study were related to the three independent variables (attitude, knowledgeability and two-way communication), and items related to the dependent variable (CRM) were based on the relevant secondary sources. The findings of the study revealed that the variables of knowledgeability and attitude of bank employees have a statistically significant impact on the effectiveness of the CRM strategies of banks in South Africa. Hazra and Srivastava (2009) conducted a study on the impact of service quality on customer loyalty, commitment and trust in the Indian banking sector and concluded that banks should pay attention to service quality to increase customers' loyalty to the company, willingness to pay, customer commitment, and customer trust. Therefore, there is a need to understand the importance of multidimensional constructs of service quality

and its implications in a competitive environment. Popli and Rao (2009) reviewed CRM in Indian banks and found that the private sector banks have been able to implement the CRM practices more effectively when compared to their public sector counterparts. This indicated that the private sector banks have been more innovative in understanding their customers and in building good relations with them.

Ganguli and Roy (2011) studied the factors affecting customer satisfaction in the Indian retail banking sector. The study identified four generic dimensions in the technology-based banking services i.e., customer service, technology security and information quality, technology convenience, and technology usage easiness and reliability. It was found that customer service and technology usage easiness and reliability have positive and significant impact on customer satisfaction. Singh and Kaur (2011) determined the factors that have an impact on customer satisfaction as regards to the working of select Indian universal banks. The major findings of the study showed that customer satisfaction is influenced by seven factors: employee responsiveness, appearance of tangibles, social responsibility, services innovation, positive word-of-mouth, competence, and reliability. Similarly, Choudhury (2013) examined the service quality and customers' purchase intentions as an empirical study of the Indian banking sector and analysed 15 items that comprise the various aspects of service quality in banking sector and found the four most important dimensions of customer perceived service quality to be behaviour, reliability, tangibles, and convenience. Levy (2014) examined whether the usage level of online services matter to customers' bank loyalty. The study suggested that bank loyalty is directly affected by satisfaction with service quality. Convenience and satisfaction with service quality affect the use of online services as customers use these online services at the expense of offline services as loyalty to their bank service provider declines. Kumar and Mishra (2015) conducted a case study on public sector banks service quality gap and customer satisfaction. The study found that the largest gap is in the dimensions of responsiveness and assurance. They further extracted that the most important factor, out of the 21 factors studied was prompt service, which was initially chosen based on the SERVQUAL model. There is a positive relationship between services quality and customer satisfaction (Beerli et al., 2004). Studies found that service quality is the antecedent of customer satisfaction (Bedi, 2010; Kumar et al., 2010; Naem and Saif, 2009; Lee and Hwan, 2005). It is evident from the review of earlier studies that the study on the factors influencing service quality of private sector commercial banks has not been given much attention so far. In the context of ever compounding competition in the banking industry, comprehending the factors influencing customers is of paramount importance.

3. Problem Statement

The bankers have to essentially perform their banking operations with the likelihood risk of the customers moving from one bank to another at any given point of time which might result in decline in revenue. In order to prevent or minimize this possibility of customer deflection; bankers have to come out with customer-centric strategic decisions. These environments to lure the attention in understanding

the factors influencing service quality of private sector commercial banks which would provide a platform for not only satisfaction among existing customers but also to expand the customer base by attracting additional customers. The banks have therefore realized the fact that understanding the factors influencing service quality is a powerful tool to achieve customer satisfaction, commitment and loyalty in their business. Hence, to achieve these banks need clear understanding of the factors persuading the service quality of private sector commercial banks.

4. Necessity of the study

The present study concentrates on the factors influencing service quality of private sector commercial banks. The banks are confronting numerous problems in understanding and providing better quality of services. The technological advancement has led to knowledgeable customers and as a consequence, the customers' loyalty is facing a downward inclination. The specific strategies for increasing a bank's market penetration are to concentrate on acquiring new customers and maintaining the existing customers. Therefore, to achieve this, banks need to understand the factors responsible for providing a better quality of services. This necessitated the present study relating to the analysis of various factors influencing private-sector bank customers.

5. Banking Network in the Study Area

The Goalpara district is an administrative district in the state of Assam in India. The district is having a network of 19 banks with 56 branches of banks; of which 41 commercial banks (33 public sector banks and 08 private sector banks), 12 RRBs and 03 cooperative Apex Banks. The banking network of the district under study is shown in table 1.

6. Objective of the study

The objective of the study is to identify the factors influencing the service quality of private-sector commercial banks operating in the Goalpara District of Assam.

Table 1: Banks operating in Goalpara District as on 31.03.2020

S. No.	Banking Infrastructure	No. of Branches
1.	A. Public Sector Banks	
	a) Allahabad Bank	01
	b) Central Bank of India	07
	c) State Bank of India	07
	d) United Bank of India	03
	e) UCO bank	09
	f) Union Bank of India	01
	g) Punjab National Bank	01
	h) Bank of India	01
	i) Canara Bank	01
	j) Oriental Bank of Commerce	01
	k) Syndicate Bank	01
	Sub Total	33

	B. Private Sector Banks:		
	a) Axis Bank	01	
	b) HDFC Bank	02	
	c) ICICI Bank	01	
	d) IDBI Bank	01	
	e) Bandhan Bank	01	
	f) North East Small Finance Bank	02	
	Sub Total		08
2.	C. Regional Rural Bank: Assam Gramin Vikash Bank	12	12
3.	D. Cooperative Bank: Assam Cooperative Apex Bank	03	03
	Total	56	56

Source: Lead Bank Office (UCO Bank), Goalpara District, Assam.

7. Research Methodology

7.1 Sampling size and procedure

A total of 200 respondents (customers at least having an account in the bank) taking 25 from each bank branch of private sector commercial banks operating in Goalpara District of Assam were selected for the study. With the help of the questionnaire specially developed for the customers, data were collected to analyse the factors influencing the service quality of banks. The study mainly used the primary source of data collected through a structured questionnaire. A convenience sampling procedure was followed to collect the desired information.

7.2. Quantifying Techniques

After drawing the demographic profile of the sample respondents, the study proceeded with the factor analysis technique to analyze the service quality perception of the sample respondents. Factor analysis is a process in which the values of observed data are expressed as functions of a number of possible causes in order to find which are the most important ones. Hence, this study is an analysis of customers' opinions regarding service quality factors based on their experience with the bank.

7.3. Variables quantified

The quantifying variables have been selected to examine and retrieve the relationships among the service quality factors based on the dimensions of the RATAR/ SERVQUAL model with minor modifications. The selected variables on five dimensions are shown in chart 1.

Chart 1: Variables selected

Dimensions	Variables
Safety	1. Feeling safe in the transaction
Empathy	2. Bank gives individual attention 3. Convenient operating hours 4. Customer is made to feel important
Reliability	5. Keeping records correctly 6. Performing correct service at first time 7. Keeping promises
Tangibility	8. Physical facilities 9. Latest equipment
Accessibility	10. Approachability 11. Information network 12. Technology 13. Receptiveness

Source: Selected on the basis of SERVQUAL/ RATAR model

8. Analysis and Discussions

8.1. Demographic Profile of the Respondents:

The demographic information provides data regarding research participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population for generalization purposes. Understanding the demographic profile of sample respondents in a study of factors influencing the service quality of private-sector commercial banks is essential. Table 2 presents the demographic profile of the sample respondents.

Table 2: Demographic Profile of the Respondents (n=200)

Demographic Characteristics	Category	No. of Respondents	Percent (%)
Age	Below 18 years	6	3
	18-40 years	88	44
	40-60 years	75	37.5
	60 years and above	31	15.5
Gender	Male	144	72
	Female	56	28
	Prefer not to say	0	0
Marital Status	Single	72	36
	Married	127	63.5
	Others	1	0.5
Education	Below Ten Plus	76	38
	Two	84	42
	Graduate	34	17
	Post Graduate	6	3
	Professional		
Occupation	Government Sector	58	29
	Private Sector	56	28
	Self Employed	34	17
	Student	8	4
	Retired	20	10
	Others	24	12
Annual Family Income	Below 1 Lakh	17	8.5
	1-3 Lakhs	52	26
	3-5 Lakhs	87	43.5
	5 Lakhs & Above	44	22

Source: Self-calculation by the present researchers

It is clear from the above demographic characteristics that out of the total number of 200 respondents, 44% fall under the age category of 18-40 years, 37.5% belongs to 40-60 years, 15.5% comes between 60 years and above, whereas only 3% comes under below 18 years. It can be visualized from the age-wise analysis of the sample that 84.5% of the respondents are youngsters. While analysing the gender of the respondents, it is found that 72% are male and 28% are female. With respect to marital status, 63.5% of the total respondents are married while 36% are single and 0.5% belong to others. Out of the total respondents, majority of them i.e., 42% are graduates, 38% of the respondents are qualified as ten plus two and below, 17% of them are postgraduates and only 3% are professionals. With respect to occupation, 29% of the respondents are occupied in the government sector, 28% in the private sector, 17% are self-employed, 12% belong to others, 10% of them are retired while 4% of them are students. The majority of the sample respondents have an annual family income of 3-5 lakhs i.e., 43.5%, followed by 1-3 lakhs i.e., 26%, 5 lakhs and above i.e., 22%, and the least belong to below 1 lakh i.e., 8.5%.

The analysis of this demographic profile indicates an appropriate combination of respondents has been pinched from various clusters to draw appropriate research conclusions.

8.2 Factor Analysis

The following table 3 shows two tests that indicate the suitability of data for structure detection. The Kaiser-Meyer-Olkin measure of sampling adequacy is a statistic that indicates the proportion of variance in variables that might be caused by underlying factors.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.738
Bartlett's Test of Sphericity	Approx. Chi-Square	1009.945
	df	78
	Sig.	0

The KMO and Bartlett's test is found to be significant. For this data set, KMO is 0.738 indicated to supports factor analysis. According to Kaiser's criterion the stopping rule states that only the number of factors with eigen values over 1.00 should be considered in the analysis (Kaiser, 1958). Table 4 displayed the outcomes of the principal component analysis to determine the extraction factors without any

restraints of cross-loadings and thus to provide the flexibility of addition / deletion / alterations scale of 13 items. The communalities determine the degree to which the variance between the variables was clarified by the extracted factors. The result of the analysis was suitable for carrying out further analysis since the value of the communalities is shown within the range.

Table 4: Communalities

Factors	Initial	Extraction
1. Feeling safe in the transaction	1	0.383
2. Bank gives individual attention	1	0.318
3. Convenient operating hours	1	0.450
4. Customer is made to feel important	1	0.593
5. Keeping records correctly	1	0.557
6. Performing correct service at first time	1	0.606
7. Keeping promises	1	0.450
8. Physical facilities	1	0.811
9. Latest equipment	1	0.749
10. Approachability	1	0.750
11. Information network	1	0.792
12. Technology	1	0.643
13. Receptiveness	1	0.507

Extraction Method: Principal Component Analysis

Table 5 indicates the eigenvalue of the variables that precisely reflect the number of extracted factors whose sum must be equal to the number of major variables exposed to factor analysis. The eigenvalue also recapitulates the amount of variation in the main variables accounted for by major components. The analysis shows that there are altogether 13 variables, out of which, 3 variables whose eigenvalue is found more than 1, indicating that 3 factors' variables are comparative summarize the variation of the major components. Considering the result of the analysis, it is found that extracted sums of squared loadings of the first

factor accounts value is 30.219 with the eigenvalue of 3.928 which means that the first component summarised the variation of the major original variables, the second factor accounts for 17.369 consisting of 2.258 eigenvalues and the third factor accounts for 10.933 with 1.421 eigenvalues. Therefore, for the remaining components whose eigenvalue is found to be less than 1.000, the factorial component is not significant to the mean, meaning that the factorial component does not significantly summarise the variation of the original variable and hence, these factors are left out of this study.

Table 5: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.928	30.219	30.219	3.928	30.219	30.219
2	2.258	17.369	47.588	2.258	17.369	47.588
3	1.421	10.933	58.521	1.421	10.933	58.521
4	0.952	7.32	65.841			
5	0.908	6.988	72.83			
6	0.71	5.464	78.293			
7	0.612	4.71	83.004			
8	0.555	4.267	87.271			
9	0.545	4.193	91.464			
10	0.391	3.006	94.47			
11	0.379	2.914	97.384			

12	0.227	1.743	99.126			
13	0.114	0.874	100			

Extraction Method: Principal Component Analysis

The component matrix analysis was performed to identify the influencing factors involved in the service quality of private sector bank customers and the results were presented in table-6. It is found that there are 3 factors altogether, out of which the first factors compress of seven 9 variables namely feeling safe in the transaction, bank giving individual attention and convenient operating hours, keeping promises, physical facilities, latest equipment, approachability and information network. Based on these variables, this factor is suitably named as *banking infrastructure factor*. The second group consists of 3 variables such as customer is made to feel important, keeping records correctly and performing correct service at first time. Therefore, these variables can be considered the *reputation and morality factor*. The third component coined with one variable viz., receptiveness can be named the *openness factor*.

Table 6: Component Matrix

Factors	Component		
	1	2	3
Feeling safe in the transaction	0.432		
Bank gives individual attention	0.424		
Convenient operating hours	0.496		
Customer is made to feel important		0.603	
Keeping records correctly		0.563	
Performing correct service at first time		0.567	
Keeping promises	0.522		
Physical facilities	0.706		
Latest equipment	0.695		
Approachability	0.61		
Information network	0.629		
Technology	0.673		
Receptiveness			0.566

Extraction Method: Principal Component Analysis

Table 7 retrieved all the components are substantially loaded into 3 factors, whose eigenvalues are found to be more than 1 and the value of Cronbach's alpha for all factors is about 0.800 which is in the suitable range. These factors are suitably renamed as banking infrastructure factor, reputation and morality factor, and openness factor and mentioned below.

Table 7: Factors Deducted from the PCA with their Eigen Values and Variance Explained

S. No.	Factors	Eigen Values	Variance	Reliability (Cronbach's Alpha)
1	Banking Infrastructure Factor	3.928	30.219	0.842
2	Reputation and Morality Factor	2.258	17.369	0.832
3	Openness Factor	1.421	10.933	0.803

Extracted from Primary component analysis

1st Component (Banking Infrastructure Factor)

- Physical facilities
- Latest equipment
- Technology
- Information network

- Approachability
- Keeping promises
- Convenient operating hours
- Feeling safe in the transaction
- Bank gives individual attention

2nd Component (Reputation and Morality Factor)

- Customer is made to feel important
- Performing correct service at first time
- Keeping records correctly

3rd Component (Openness Factor)

- Receptiveness

The above-mentioned factors in each of the component are so related to each other such that the factors which falls under the banking infrastructure are considered to be more important than the 2nd component (reputation and morality factor) which is again considered to be more important than the 3rd component (openness factor). Therefore, we conclude that the analysis of customers' opinions regarding service quality factors based on their experience with the bank revealed that the factors under banking infrastructure followed by reputation and openness factor to be given due importance which would ultimately help in building a good relationship with the customers in the long run.

9. Implications

This study provides an idea of customers' opinions regarding factors influencing service quality in private-sector commercial banks in regard to the services offered. The analysis of the factors found that banking infrastructure is the main factor influencing the quality of services offered by banks followed by reputation and morality factor and openness factor. Hence, these may be the priority area in the hands of banks to stretch more preference to improve the satisfaction of their customers and thereby to enhance the relationship building with customers. These would eventually lead to customer satisfaction, commitment and loyalty in their business if taken care of. It is also suggested that effective measures for better service quality for appropriate customer relationship management is the need of the hour for acquiring the new customers and retaining the existing customers to create superior value for the banks and their customers.

10. Directions for Future Research

The present study has taken into account selected private-sector commercial banks operating in the Goalpara district of Assam. Similar studies may be conducted in other urban and semi-urban areas covering other category banks viz, public sector banks, regional rural banks, and cooperative banks to gain further insights into the subject. The perceptions of bank employees on the selected variables need to be studied to evolve better strategies with regard to the services offered by banks.

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