
Service Quality Analysis in Retail Banking

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ABSTRACT

Financial services are inherently intangible and high on experience and credence qualities. In order to promote them effectively, a service provider must first identify the dimensions used by consumer to evaluate the service quality of banks prior to becoming a customer. Based on responses from customer, the current study identifies four dimensions – reliability, responsiveness, assurance and tangibles – which form the domain of customer's evaluation of service quality in the financial services industry. Further, the relationship between these service quality factors and overall assessment of customer's bank is investigated. The important discriminant service quality factors among the public sector, private sector and co-operative banks are also examined. The results indicate that the customer's perception on the service quality factors in private sector banks are higher than in the public sector and co-operative banks. The significantly influencing service quality factors on the overall attitude towards retail banking are the reliability and assurance. The most important discriminant service quality factor among private and public sector bank is 'responsiveness' whereas among the public sector and co-operative banks, it is 'tangibles'. In the case of private and co-operative banks, the important discriminant service quality factors are reliability and responsiveness. These findings suggest that bank managers should be cognizant of service quality factors and their relations with the appropriate contingent variables.

Introduction

Customer satisfaction is an important theoretical as well as practical issue for the marketers and consumer researchers (Fournier and Mick, 1999; Meuter et al., 2000). Customer satisfaction can be considered as the essence of success in today's highly competitive world of business. The importance that customers place on service quality attributes is the driver of satisfaction. Loyalty is a crucial output to a firm's resource allocation strategy and quality improvement efforts. Service quality is particularly essential in the financial services context because providers tend to be viewed as relatively undifferentiated, and hence it becomes a key to competitive advantage (Almossawi, B., 2001; Stafford, 1996). In addition, financial services, like other services are intangible, difficult to evaluate, and rest on experience and credence quality (Zeithaml, 1981; Zeithaml et al., 1985).

Service quality can only be assessed during and after consumption, whereas credence qualities are virtually impossible to evaluate even after consumption. Search quality, on the other hand, includes aspects of a product or service that consumers can evaluate before making the purchasing. Services tend to be

inherently low on search quality dimensions (Lovelock, 1996; Stafford 1996). Nevertheless, financial services providers struggle to distinguish themselves from the competition. In sum, investigating service quality in the financial services industry is difficult as well as interesting.

Relying on the existing literature (Boyd, et al., 1994; Javalgie et al., 1989; Laroche et al., 1986) this study has three goals. First, the study investigates and identifies the service quality dimensions pertaining to financial services. Secondly, it examines the relationship between perception accorded to these dimensions and the overall attitude towards the banking. Thirdly, it examines the important discriminant service quality factors among the different group of banks by paired comparison. To accomplish these goals, an examination of the relevant literature is

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presented. This is followed by methodology, analysis and results, and discussion. Research and Managerial implications and direction for future research conclude the paper.

Service quality dimensions of financial services

Service quality conceptually captures aspects of products or services that potential consumers can and would like to assess before they select product or service (Lovell, 1996). Additionally, service quality encompasses consumer's expectations in terms of quality after they have highlighted a large number of service that are supposedly used by consumers to evaluate and select banks or financial institutions (Zineldin, 1996; Yue and Tom 1995).

The service quality variables identified by Parasuraman et al., (1994) are reliability, responsiveness, competence, accessibility, courtesy, communication, credibility, security, understanding and tangibility. Alfred and Addam (2001) investigated attitudes using fifteen service quality variables. In the present study, the service quality in retail banking are studied using variables drawn from the reviews (Cronin and Taylor 1992; Zillur Rahman, 2005; Verma and Vohna 2000; Mushtag A Bhat, 2005).

An important theoretical approach for investigating the service quality is SERVQUAL Analysis (Wisner and Corney, 2001). They defined service quality as a 'global judgement or attitude, relating to the superiority of the service', and explicated it as involving evaluations of the outcome and process of service act. In line with the proportions put forward by Gronroos (1982) Smith and Houston (1982), Parasuraman et al., (1988) explained and operationalised service quality as a difference between consumer expectations of 'what they want' and their perceptions of 'what they get'. Based on this conceptualization and operationalization, they proposed a service quality measurement scale called as 'SERVQUAL' scale.

Validity of the difference between perception and expectation (P-E) measurement framework has also come under severe criticisms due to problems with the conceptualization and measurement of expectations components of the SERVQUAL scale. While perception (P) is definable and measurable in a

straight forward manner as the consumers' belief about service is experienced, expectation (E) is subject to multiple interpretations and such has been operationalised differently by different authors and researchers (Dasholkar et al., 2000; Babakus and Boller, 1992; Teas, 1993).

SERVPERF Scale

Cronin and Taylor (1992) were amongst the researchers who levelled maximum criticism on the SERVQUAL scale. They provided empirical evidence across four industries to corroborate the superiority of their 'performance only' instrument over disconfirmation-based on SERVQUAL Scale. In equation form, it can be expressed as:

$$SQ_i = \sum_{j=1}^k P_{ij}$$

Where

SQ_i = perceived service quality of individual 'i'.

k = Number of attributes / items

P = Perception of individual 'i' with respect to performance of a service firm on attribute 'j'.

The SERVPERF scale is found to be superior not only as the efficient scale but also more efficient in reducing the number of items to be measured by 50 per cent. (Hartline and Ferrell, 1996; Babakus and Boller, 1992; Bolton and Drew, 1991). In the present study, the SERVPERF scale is used to measure service quality in retail banking.

Methodology

The present study is an attempt to make an assessment of the SERVPERF scale in the Indian retail banking. Data for the assessment of SERVPERF scale in retail banking were collected through a survey among the borrowers of consumer loans in public, private and co-operative banks in Madurai. The consumer loans were chosen due to their growing familiarity and popularity with the people in globalized era. A systematic random sampling technique was adopted. In total, 5 each public sector, private sector and co-operative banks in Madurai City, Tamilnadu had been selected at random. From each bank, a list of 20 customer borrowed consumer loans were

collected. All the customers were personally interviewed with the help of pre-structured interview schedule. The response rate among the customers belonging to public sector, private sector and co-operative banks were 73.0, 81.0 and 51.0 per cent to its respective total. The total sample size of the study came to 205 customers.

Bernes and Howlett (1998); Beerli and Martin (2004) SERVPERF instrument with 17 items used was for collecting the data regarding the respondent's perceptions. The important service quality attributes in retail banking were identified with the help of factor analysis whereas the impact of SERVPERF scores on overall attitude towards retail banking was measured with the help of multiple regression analysis. The important discriminant service quality factors among the three group of banks were identified with the help of two group discriminant analysis.

Findings and Discussions

The identified variables in the service quality of

retail banking are upto date equipments, being sincere to solve problems, telling customer exactly what they do, employees are trustworthy, providing services at provided time, physical facilities, prompt services to customers, knowledgeable employees, promise to do something on time, neatness of employees, employees willingness to help, consistent courteous, feeling safe in bank transaction, keeping records correctly, communication material, employee oblige the requests of customers and performing the service right at first time. The borrowers are asked to rate the above said seventeen variables at five point scale from highly satisfied to highly dissatisfied. The scores assigned on these scales are from 5 to 1 respectively. The mean score of these service quality variables have been computed to show the customers attitude towards the various aspects of service quality in three group of banks. In order to analyse the significant difference among the borrowers in three group of banks regarding their attitude towards each variable in service quality, the One-way Analysis of Variance has been used. The resulted mean score and the respective 'F' statistics are shown in Table 1.

TABLE 1

Perception on Service Quality Variables among Customers

Sl.No.	Service Quality Variables	Mean Scores among customer in			F-Statistics
		PSBs	PrSBs	CBs	
1.	Upto date equipments	3.5817	3.8217	2.1782	2.2193
2.	Being sincere to solve problems	2.9192	3.0414	2.3317	1.8917
3.	Telling customer exactly what they do	3.3433	3.1218	3.0224	0.7331
4.	Employees are trustworthy	2.8084	2.6091	2.3317	1.4347
5.	Providing services at promised time	3.1198	3.8989	2.4641	3.0814*
6.	Physical facilities	3.4082	3.7371	2.5169	2.4042
7.	Prompt services to customers	2.7172	3.6068	2.2034	3.3414*
8.	Knowledgeable employees	3.3091	3.2161	2.1194	2.7078
9.	Promise to do something on time	2.4082	3.4517	2.3308	3.3091*
10.	Neatness of employees	3.5193	3.2098	3.1193	0.6168
11.	Employees willingness to help	2.4141	3.7083	2.2626	3.4141*
12.	Consistent courteous	2.8089	3.1718	2.8617	2.4091
13.	Feeling safe in bank transaction	3.8193	2.5054	2.3411	3.5662*
14.	Keeping correct records	3.5092	3.7059	2.7877	1.1143
15.	Communication material	3.2317	3.1142	2.1141	2.8699
16.	Employee oblige the requests of customers	2.3041	3.4518	2.0528	3.7021*
17.	Performing the service right at first time	2.7072	3.3039	2.4112	3.0191*

* Significant at 5 per cent level.

The highly perceived service quality variables among the customers in public sector banks are feeling safe in bank transactions, up to date equipments and neatness of employees since the respective mean scores are 3.8193, 3.5817 and 3.5193. In the case of private sector banks, these service quality variables are providing services at promised time, upto date equipments and physical facilities since the respective means scores are 3.8989, 3.8217 and 3.7371. In the case of co-operative banks, the highly perceived service quality variables among the customers are neatness of employees and informing customer exactly what they have done since the mean scores are 3.1193 and 3.0224 respectively. Regarding the perception on service quality variables in the banks, the significant difference among the borrowers in three group of banks are identified especially in case of providing services at promised time, promised services to customers, promise to do something on time, employees are willing to help, feeling safe in bank transactions and performing the services right at first time since the respective 'F' statistics are significant at five per cent level.

Important Service Quality Factors in Banking

The important service quality factors in banking are identified with the help of factor analysis. Before conducting the factor analysis, the validity of data for factor analysis is examined with the help of Kaiser-Mayer-Ohlin measure of sampling adequacy and Bartlett's test of sphericity. The KMO measures of sampling adequacy (0.7348) is greater than the standard minimum of 0.50. And the chi-square is significant even at zero per cent level. Both these tests confirm the validity of the data for factor analysis. The scores on seventeen variables related to the service quality of banks are included for factor analysis. The factor analysis results in four important service quality factors namely reliability, responsiveness, assurance and tangibles. The factor loading of the service quality variables included in the above said four factors and its reliability co-efficient, the eigen value and the per cent of variation explained by the service quality factors are presented in Table 2.

TABLE 2
Important Service Quality factors in Retail Banking

<i>Factor</i>	<i>Variables in Service quality</i>	<i>Factor Loading</i>	<i>Reliability Co-efficient</i>	<i>Eigen Value</i>	<i>Percent of Variation</i>
Reliability	Being sincere to solve problems	0.8933	0.8082	5.4967	25.29
	Providing services at promised time	0.8147			
	Promise to do something on time	0.7236			
	Keeping records correctly	0.6418			
	Performing the service right at first time	0.5904			
Responsive ness	Telling customer exactly what they do	0.8431	0.9139	3.1932	17.36
	Prompt services to customers	0.8089			
	Employees willingness to help	0.7933			
	Employee oblige the requests of customers	0.7111			
Assurance	Employees are trustworthy	0.8688	0.7339	2.1147	13.19
	Knowledgeable employees	0.7034			
	Consistent courteous	0.6342			
	Feeling safe in bank transaction	0.5808			
Tangibles	Upto date equipments	0.8018	0.6787	1.2049	10.24
	Physical facilities	0.7363			
	Neatness of employees	0.6409			
	Communication material	0.5711			

KMO measure of sampling adequacy: 0.7348	Bartlett's Test of sphericity: Chi-square: 138.69* * Significant at zero per cent level.
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The narrated four service quality factors explain the service quality variables in banks to the extent of 66.08 per cent. The most important factor is the 'reliability' factor. It consists of five variables with the reliability co-efficient of 0.8082. The eigen value and the per cent of variation explained by this factor are 5.4967 and 25.29 per cent respectively. The second important factor is responsiveness. It consists of four variables with the reliability co-efficient of 0.9139. The eigen value and the per cent of variation are 3.1932 and 17.36 per cent respectively. The next two important factors are assurance and tangibles with four variables in each. The first important service quality variable in 'reliability' and 'responsiveness' are 'being sincere to solve problems' and 'informing customers exactly what they do' whereas in the case of assurance and tangibles, these are 'employees are trustworthy' and 'upto date equipment' respectively.

SERVPERF Scores on Service Quality Factors

The SERVPERF score represents marked improvement over the SERVQUAL scale. The

SERVPERF score represents the perceived performance on the components of service quality. In equation form, it can be expressed as:

$$SQ = \sum_{j=1}^k P_{ij}$$

Where

SQ = perceived service quality of individual.

k = Number of attributes / items

p = Perception of individual 'i' with respect to performance of a service firm on attribute 'j'.

The SERVPERF scores on reliability, responsiveness, assurance and tangibles have been calculated by the mean of service quality variables in each factor among the customers belonging to three group of banks separately. In order to find out the significant difference among the customers in three group of banks regarding their SERVPERF score on four service quality factors, the oneway analysis of variance has been administered. The resulted mean score and its respective 'F' statistics are illustrated in Table 3.

TABLE 3
Perception on Service Quality among Customers

Sl.No.	Factors in Service Quality	Mean Scores among borrowers in			F-Statistics
		PSBs	PrSBs	CBs	
1.	Reliability	2.9330	3.4804	2.4651	3.1193*
2.	Responsiveness	2.6947	3.4722	2.3853	3.2696*
3.	Assurance	3.1864	2.8756	2.4135	2.5071
4.	Tangibles	3.4352	3.4707	2.4821	2.7871

* Significant at 5 per cent level.

Among the customers in public sector banks, the highly perceived service quality factors are tangibles and assurance since its means scores are 3.4352 and 3.1864 respectively. In the private sector banks, these factors are reliability, responsiveness and tangibles since the respective mean scores are 3.4804, 3.4722 and 3.4707. In the co-operative banks, the highly perceived service quality factor is nil since the mean score of service quality factors are less than 3.0. Regarding the perception on the service quality factor, the significant difference among customers in the three group of banks are identified regarding the perception

on 'reliability' and 'responsiveness' since the respective 'F' statistics are significant at five per cent level.

Overall Attitude towards Banking

The overall attitude towards retail banking services offered by the bankers have also been measured at five point scale namely highly satisfied, satisfied, moderate, dissatisfied and highly dissatisfied. The distributions of customers on the basis of their overall attitude towards banking are presented in Table 4.

TABLE 4
Overall Attitude towards Retail Banking

Sl.No.	Overall Attitude	Mean Scores among borrowers in			Total
		PSBs	PrSBs	CBs	
1.	Highly Dissatisfied	161	31	6	198
2.	Dissatisfied	186	29	5	220
3.	Moderate	284	58	5	347
4.	Satisfied	76	50	2	128
5.	Highly Satisfied	52	43	1	96
	Total	759	211	19	989

As a maximum of 35.09 per cent of the customers are moderate in their attitude towards the banking followed by 22.24 per cent who have a dissatisfied attitude towards the banking. In total, only 9.71 per cent of customers are highly satisfied whereas 12.94 per cent are satisfied. The important overall attitudes among the customers in public sector banks are moderate and dissatisfied whereas in private sector banks, these are moderate and satisfied. In the co-operative banks, these two are highly dissatisfied and dissatisfied. The analysis reveals that the overall attitude on the banking in private sector banks are better than in other two groups of banks.

Impact of Attitude on Service Quality Factors and Overall Attitude Towards the Retail Banking

The service quality factors in banking are classified into reliability, responsiveness, assurance and tangibles. The above said four factors are the components of services offered in retail banking which determine its service quality. The scores of these four factors are taken as the scores of independent variables. The overall attitude towards the banking is taken as the score of independent variable. The scores on those overall attitude are taken as 5, 4, 3, 2 and 1 for highly satisfied, satisfied, moderate, dissatisfied and highly dissatisfied respectively. The multiple regression model is used to analyse the impact of independent variables on dependent variable. The fitted regression model is

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + e$$

Where
 Y = Scores on the overall attitude towards retail banking
 X₁ = Scores on the attitude towards the reliability
 X₂ = Scores on the attitude towards the responsiveness
 X₃ = Scores on the attitude towards the assurance
 X₄ = Scores on the attitude towards the tangibles

b₁, b₂ . . . b₄ = Regression co-efficient of independent variables
 a = intercept and
 e = an error term

The regression analysis has been applied among the customers in the three groups of banks separately and also for the pooled data. The resulted regression co-efficient are shown in Table 5.

TABLE 5
Impact of Attitude of Service Components on Overall Attitude towards Retail Banking

Sl.No.	Independent Variables	Regression co-efficient in			Pooled
		<i>PSBs</i>	<i>PrSBs</i>	<i>CBs</i>	
1.	Reliability	0.1442*	0.1331*	-0.0704	0.1244*
2.	Responsiveness	0.0397	0.0949	0.0811	0.0456
3.	Assurance	0.1131	0.1214*	0.1073	0.1241*
4.	Tangibles	0.1034	0.0568	-0.0946	0.0673
	Constant	1.2963	2.3194	-0.9946	1.8181
	R ²	0.7947	0.7181	0.4348	0.8183
	F-Statistics	14.9314*	11.3314*	3.4431	15.6931*

* Significant at 5 per cent level.

In the case of customers in public sector banks, the significantly influencing attitude towards service quality factors on the overall attitude towards the retail banking is the attitude towards reliability. A unit increase in the above said attitude results in an increase in overall attitude by 0.1442 units. The independent variables explain the changes in overall attitude to the extent of 79.47 per cent. In the case of customers in private sector banks a unit increase in the attitude towards reliability and responsiveness results in an increase in overall attitude towards retail banking by 0.1331 and 0.1214 units respectively. The changes in overall attitude towards retail banking is explained by the changes in the included independent variables to the extent of 71.81 per cent. In the case

of customers in co-operative banks, there is no significantly influencing independent variable. The co-efficient of determination and the insignificant 'F' statistics reveal the unreliability of the fitted regression model. The analysis of pooled data reveals that a unit increase in the attitude towards reliability and assurance results in an increase in the overall attitude towards retailing banking by 0.1244 and 0.1241 units respectively. In total, 81.83 per cent change in the dependent variable is explained by the independent variables.

Discriminant Service Quality Factors among Private & Public Sector Banks

It is imperative to know the important service quality factors among the different groups of banks in order to formulate their strategy for future. The banks should know how far they are discriminated from their competitors and in which aspects. It is good for future planning. Hence, the present study has made an attempt to identify the important discriminant factors

with the help of two group discriminant analysis. Initially, the mean difference among the two group of banks regarding the four service quality factors have been computed. The 't' test have been administered to findout the significant mean differences. The discriminant power of the factor is examined with the help of Wilks' Lambda. The results are shown in Table 6.

TABLE - 6
Discriminant Service Quality Factors among Private and Public Sector Banks

Sl. No.	Factors in Service Quality	Mean Score		Mean Difference	T-statistics	Wilks Lambda
		Private Sector Banks	Public Sector Banks			
1.	Reliability (X ₁)	3.4804	2.9330	0.5474	2.8681*	0.2457
2.	Responsiveness (X ₂)	3.4722	2.6947	0.7775	3.1746*	0.1243
3.	Assurance (X ₃)	2.8756	3.1864	-0.3108	-2.4501*	0.2962
4.	Tangibles (X ₄)	3.4707	3.4352	0.0355	0.8619	0.4401

* Significant at five per cent level.

The significant mean difference among the private and public sector banks is identified in the case of reliability, responsiveness and assurance since the respective mean differences are significant at five per cent level. The higher discriminant power among the factor is identified in responsiveness and reliability since the respective Wilks' Lambda co-efficient are 0.1243 and 0.2457 respectively.

The significant service quality factors have

been included for the establishment of two group discriminant functions. The established unstandardised discriminant function is:

$$Z = 1.2589 + 0.6235 X_1 + 0.9138 X_2 - 0.4567 X_3$$

The relative contribution of the discriminant factors in total discriminant score is computed by the product of unstandardised canonical discriminant co-efficient and the respective mean difference of the factors. The results are shown in Table 7.

TABLE 7
Relative Contribution of Discriminant Factors in Total Discriminant Score

Sl.No.	Discriminant Factors	Unstandardised Canonical Discriminant Co-efficient	Mean Difference	Product	Relative Contribution in discriminant score
1.	Reliability	0.6235	0.5474	0.3413	28.59
2.	Responsiveness	0.9138	0.7775	0.7105	59.52
3.	Assurance	-0.4567	-0.3108	0.1419	11.89
	Total			1.1937	100.00

* Significant at 5 per cent level.

The service quality factor 'responsiveness' influences more on the discriminant function since it's canonical discriminant co-efficient is 0.9138. It is followed by reliability factor with the discriminant co-efficient of 0.6235. The higher contribution of service quality factor in the total discriminant score is identified in the case of responsiveness which is followed by reliability since it's contribution are 59.52 and 28.59 per cent respectively. The established discriminant function correctly classifies the cases to the extent of 78.93 per cent. The analysis infers that the important discriminant service quality factors among the private and public sector banks are responsiveness and reliability.

Discriminant Service Quality Factors among Public Sector Banks and Co-operative Banks

In order to identify the important discriminant factors among the above said two group of banks, initially, the mean difference in each service quality factor has been computed. The 't' test has been used to analyse the significance of the mean difference. The Wilks' Lambda have been computed to find out the discriminant power of the service quality factors. The resulted mean difference, 't' statistics and the Wilks' Lambda are shown in Table 8.

TABLE - 8
Discriminant Service Quality Factors among Public and Co-operative Banks

Sl. No.	Factors in Service Quality	Mean Score		Mean Difference	T-statistics	Wilks Lambda
		Private Sector Banks	Public Sector Banks			
1.	Reliability (X_1)	2.9330	2.4651	0.4679	2.7616*	0.1341
2.	Responsiveness (X_2)	2.6947	2.3853	0.3094	2.2961*	0.3668
3.	Assurance (X_3)	3.1864	2.4135	0.7729	3.1126*	0.1815
4.	Tangibles (X_4)	3.4352	2.4821	0.9531	3.9232*	0.2337

* Significant at five per cent level.

The higher-mean difference is identified in the case of tangibles and assurance since the respective mean difference are 0.9531 and 0.7729. The significant mean difference among the two group of banks are identified in the case of all four service quality factors namely reliability, responsiveness, assurance and tangibles since the respective mean differences are significant at five per cent level. The higher discriminant power is identified in the case of reliability and assurance since the respective Wilks' Lambda are 0.1341 and 0.1815 respectively.

The significant service quality factors have been included for the establishment of two group discriminant function. The unstandardised procedure have been followed to establish this function. The established function is:

$$Z = 1.8189 + 0.2611X_1 + 0.4544X_2 + 0.4091X_3 + 0.5132X_4$$

The relative contribution of discriminant factor in total discriminant score is calculated by the help of the product of canonical discriminant co-efficient and the respective mean difference of each service quality factor. The computed relative contribution of each service quality factor is shown in Table 9.

TABLE 9
Relative Contribution of Discriminant Factors in Total Discriminant Score

Sl.No.	Discriminant Factors	Unstandardised Canonical Discriminant Co-efficient	Mean Difference	Product	Relative Contribution in discriminant score
1.	Reliability	0.2611	0.4679	0.1222	11.44
2.	Responsiveness	0.4544	0.3094	0.1406	13.16
3.	Assurance	0.4091	0.7729	0.3162	29.61
4.	Tangibles	0.5132	0.9531	0.4891	45.79
	Total			1.0681	100.00

Per cent of cases correctly classified : 91.89.

The highly influencing service quality factors in two group discriminant function are tangibles and responsiveness since their canonical discriminant co-efficients are 0.5132 and 0.4544 respectively. The higher contribution of service quality factors in total discriminant score is identified in the case of tangibles and assurance since the respective contributions are 45.79 and 29.61 respectively. The established discriminant function correctly classifies the cases to the extent of 81.89 per cent. It reveals that the important discriminant factors among the public sector banks and co-operative banks are tangibles and assurance.

Discriminant Service Quality Factors among Private Sector and Co-operative Banks

The mean differences among the private sector and co-operative banks have been examined with respect to the four service quality factors. The 't' test has been applied to find out the significance of such mean differences. The discriminant power of the service quality factor has been computed with the help of Wilks' Lambda. The resulted mean differences, its 't' statistics and the respective Wilks' Lambda are given in Table 10.

TABLE -10
Discriminant Service Quality Factors among Private and Co-operative Banks

Sl. No.	Factors in Service Quality	Mean Score		Mean Difference	T-statistics	Wilks Lambda
		Private Sector Banks	Public Sector Banks			
1.	Reliability (X_1)	3.4804	2.4651	0.0153	4.0691*	0.1081
2.	Responsiveness (X_2)	3.4722	2.3853	0.0869	4.1142*	0.1193
3.	Assurance (X_3)	2.8756	2.4135	0.4621	2.5819*	0.2886
4.	Tangibles (X_4)	3.4707	2.4821	0.9886	0.9803*	0.2314

* Significant at five per cent level.

The higher mean differences are identified in the case of responsiveness and reliability since the mean differences noticed in all four service quality factors namely reliability, responsiveness, assurance and tangibles the respective 't' statistics are significant at five per cent level. The higher discriminant power of the factor is noticed in the case of reliability and responsiveness since its Wilks' Lambda co-efficient are 0.1081 and 0.1193 respectively.

In order to establish the two group discriminant function, the unstandardized procedure

has been followed. The significant service quality factors have been included for the establishment of the function. The established function is:

$$Z = 2.1463 + 0.5816 X_1 + 0.5162 X_2 + 0.3114 X_3 + 0.3891 X_4$$

The relative contribution of service quality factors have been computed by the product of canonical discriminant co-efficients and the respective mean difference of the service quality factors. The computed discriminant co-efficients and the relative contribution of service quality in total discriminant score are shown in Table 11.

TABLE 11
Relative Contribution of Discriminant Factors in Total Discriminant Score

Sl.No.	Discriminant Factors	Unstandardised Canonical Discriminant Co-efficient	Mean Difference	Product	Relative Contribution in discriminant score
1.	Reliability	0.5816	1.0153	0.5905	35.15
2.	Responsiveness	0.5162	1.0869	0.5611	33.39
3.	Assurance	0.3114	0.4621	0.1439	8.58
4.	Tangibles	0.3819	0.9886	0.3847	22.89
	Total			1.1937	100.00

Per cent of cases correctly classified : 86.69.

The highly influencing service quality factor in the discriminant function is reliability since its discriminant co-efficient is 0.5816. It is followed by responsiveness with the discriminant co-efficient of 0.5162. The higher contribution of service quality factor in total discriminant score is identified in the case of reliability and responsiveness since its per cent of contributions are 35.14 and 33.39 per cent respectively. The established discriminant function correctly classifies the cases to the extent of 86.69 per cent. The analysis infers that the important discriminant service quality factor among the private sector and co-operative banks are reliability and responsiveness.

Conclusion, Implications and Directions for Future Research

A highly contentions issue examined in this paper relates to the SERVPERF scores of service quality construct. The highly perceived service quality of retail banking in public sector banks are feeling safe in bank transactions, upto date equipment and neatness of employees whereas in private sector banks, these are services at promised time, upto date equipments and physicals. In the co-operative banks, these are neatness of employees and telling customer exactly what they have done. The important service quality factors in retail banking are reliability, responsiveness, assurance and tangibles. There is a significant difference among the customer belonging to three group of banks regarding their SERVPERF scores on reliability and responsiveness. The significantly influencing perception on service quality variables on the overall attitude towards the retail banking are reliability and assurance. Regarding the service quality factors, the important discriminant factors among the private and public sector banks are responsiveness and reliability whereas among the public sector and co-operate banks, these are tangibles and assurance. In the case of private sector and co-operative banks, these important discriminant factors are reliability and responsiveness. Hence, the study leads to some managerial implications. The results indicate service quality of retail banking as critical to customer's satisfaction and these key areas provide important directions for bank marketers to implement relationship marketing programmes. The perceived service quality components namely reliability and responsiveness have the most impact on customer's satisfaction in retail banking. Therefore, while

maintaining service quality, the reliability and responsiveness are still important. Banks must be aware these potential impacts and design appropriate strategy to satisfy its customers.

Directions for Future Research

While this research provides some important insights into service quality in retail banking, there is still an opportunity to extend these findings to gain a more comprehensive understanding of retail banking. The future research may highlight the service quality in banking in total, comparative analysis on SERVPERF scores in different sectors of banks, market segment and SERVPERF analysis in banking and comparative analysis on SERVQUAL and SERVPERF scores in banking industry. The future research may be directed to analyse the reasons for variations in SERVQUAL and SERVPERF scores among customers in the banking industry.

References:

1. Alfred, A., Addams, H.L., "Service quality at banks and credit unions: What do their customer say?", *Managing Service Quality*, 10(1), 2001, pp.52-60.
2. Almassari, M., "Bank selection criteria employed by college students in behaviour: An Emprical analysis", *International Journal of Bank Marketing*, 19(3), 2001, pp.115-125.
3. Asuncion Beerli, Josefa D. Martin, Agustin, Quintana, "A model of customer loyalty in the retail banking market", *European Journal of Marketing*, 38(12) 2004, pp.253-275.
4. Babakus, E. and Boller, G.W., "An empirical assessment of servqual scale", *Journal of Business Research*, 24(3), 1992, pp.253-268.
5. Bernes, J.G. and Howleft, D.M., "Predictors of equity in relationship between financial services providers and retail customers" *International Journal of Bank Marketing*, 16(1), 1998, pp.15-23.
6. Bolton, R.N. and Drew, J.H., "A longitudinal analysis of the impact of service changes on customer attitudes", *Journal of Marketing*, 55, January 1991, pp.1-9.
7. Boyd, W., Leonard, M., and White, C., "Customer preferences for financial services and analysis", *International Journal of Bank Marketing*, 12(1),

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- 1994, pp.9-15.
8. Cronin, J. and Taylor, S.A., "Measuring Service Quality: A Reexamination and Extension", *Journal of Marketing*, 56, July 1992, pp.55-67.
 9. Cronin, J., and Taylor, S.A., "Measuring Service quality: A Reexamination and Extension", *Journal of Marketing*, 56, July, 1992, pp.55-67.
 10. Dalholhar, P.A., Shepherd, D.C. and Thorpe, D.I., "A comprehensive framework for service quality: An Investigation of Critical, Conceptual and measurement issues through a longiterdinal study", *Journal of retailing*, 76(2), pp.139-173.
 11. Fournier, S. and Mick, D.G., "Rediscovering Satisfaction", *Journal of Marketing*, 63(4), pp.5-23.
 12. Gronroos, C., *Strategic Management and Marketing in the Service Sector, Finland: Swedish School of Economics and Business Administration*, 1982.
 13. Hartline, M.D. and Ferrell, O.C., "The Management of Customer Contact Service Employees: An Emprical investigation", *Journal of Marketing*, 69, October 1996, pp.52-70.
 14. Javalgi, M.A., Mother laugh, D.C. and Beatty, S.E., "Why customer stay: measuring the underlying dimensions of services switching costs and managing their differential strategies outcomes", *Journal of business research*, 55(6), 2002, pp.441-450.
 15. Laroche, M., Rosenblatt, J.A., and Manning T., "Services used and factors considered important in selecting a bank: an investigation across diverse demographic segments", *International Journal of Bank Marketing*, 4(1), 1986, pp.35-55.
 16. Lovelock, C.H., "Services Marketing, Prentice – Hall, Upper Scddle River, 1996, No.3.
 17. Meuter, M.L., Osform, A.L.Round tree, R.I. Bitner, M.J. *Journal of Marketing*, 64 (3), pp.50-64.
 18. Mushtaq A. Bhat, "Correlates of service quality in banks: An Empirical investigation", *Journal of Services Research*, 5(1), April-September, 2005, pp.77-97.
 19. Parasuraman, A., Zeithaml, V.A. and Beny, L.L. "Reassessment of expectations as a comparison standard in measuring service quality: Implications for further research", *Journal of Marketing*, 58 (January), 1994, pp.111-124.
 20. Parasuraman, A., Zeithaml, V.A., and Beny, L.L. "SERVQUAL: A multiple scale for measuring consumer perceptions of service quality" *Journal of Retailing*, 64(1), 1988, pp.12-40.
 21. Smith, R.A., and Huston, M.J., "Script-based Evaluations of Satisfaction with Services", in Beny, L.Shostack, G. and Upah, G., and Upah, G., (eds.) *Emerging Perspectives on Services Marketing*, Chicago: American Marketing Association, 1982, pp.59-62.
 22. Stafford, M.R., "Demographic discriminant of service quality in the banking industry", *Journal of services marketing*, 10(4), pp.6-22.
 23. Teas, K.R. "Expectations, Performance Evaluation and consumer's perceptions of quality", *Journal of Marketing*, 57, October 1993, pp.18-34.
 24. Verma, D.P.S. and Ruchika Vohana, "Customer perception of banking service quality: A study of State Bank of India", *The Journal of Institute of Public Enterprise*, 23 (3&4), 2000, pp.46-54.
 25. Wisher, J.D. and Corney, W.J., "Comparing practices for capturing bank customer feed back – Internet versus traditional banking", *Benchmarking : An International Journal*, 8(3), 2001, pp.240-250.
 26. Yue, H. and Tom, G., "How the Chinese select their banks", *Journal of retail banking*, 16(4), 1995, pp.36-39.
 27. Zeithaml, V., "How consumer evaluation processes differ between goods and services", in Donnelly, J. and George, W., (eds.), *Marketing of Services*, American Marketing Association, Chicago, IC., 1981, pp.186-190.
 28. Zeithaml, V., Parasuraman, A., Beny, L.C. "Problems and strategies in services marketing", *Journal of marketing*, 1985, 49(2), pp.33-46.
 29. Zillur Rahman, "Service quality: Gaps in the Indian Banking Industry", *The ICFAI Journal of Marketing Management*, February, 2005, pp.37-50.
 30. Zineldin, M., "Bank strategic portioning and some determinants of bank selection" *International Journal of Bank Marketing*, 14(6), pp.12-22.
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