Impact of Service Quality On Customer Satisfaction, Loyalty, and Commitment In The Indian Banking Sector

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INTRODUCTION

Service quality is a critical determinant of competitiveness for establishing and sustaining satisfying relationships with customers. Service marketers have realized that competition can be well managed by differentiating through quality. A customer-minded corporate culture, an excellent service-system design, and effective use of technology and information are crucial to superior service quality.

Service quality by its very nature is an elusive and abstract concept, which has been defined from different perspectives and orientations. Grönroos (1984) has defined the perceived service quality as *"the outcome of an evaluation process, where the customers compare their expectations with the service they have received"*. Parasuraman, Zeithaml and Berry (1985) defined service quality as the consumer's comparison between service expectation and service performance. They argued that service quality is determined by the differences between customers' expectations of the service and their perceptions of the service experience (Parasuraman, Zeithaml & Berry, 1988). Cronin and Taylor (1992) argued that the conceptualization of service quality as a gap between expectations and performance is inadequate. According to them, the concept of service quality should be based on customers' attitude towards the service. Teas (1993, 1994) has criticized the conceptual foundation of the disconfirmation paradigm, and suggested that performance or perception is the only measure of service quality, and it is no longer necessary to consider the expectation.

Recently, service quality has been extensively researched, as it has become vital for service firms to pay attention to it due to increased competition (Bouman & Wiele, 1992). Therefore, firms are using service enhancement and are developing a range of techniques to measure service quality improvement (Min & Min, 1997; Tsang & Qu, 2000). Banks and other financial service providers are increasingly developing service quality initiatives (Al-Hawari & Ward, 2006; Lewis, 1993).

The competition between private and public sector banks has resulted in an increased need for service providers to identify the gaps in the market in order to improve service provisions to retain customers. The Indian banking sector has responded to these needs by paying more attention to enhancement of service quality in order to retain its market position. Therefore, service quality is becoming more critical for banks to retain their customer base. In the present Indian banking scenario, satisfactory service quality is an indispensable competitive strategy, where sophisticated customers with less loyalty are becoming the norm. Delivering quality service to customers is one of the ways for banks to respond and compete for success and survival (Samli & Frohlich, 1992; Sudesh, 2007).

Traditionally, the field of banking was dominated by large public sector banks. After the liberalization policy of the Government of India, foreign and private banks were permitted to start a business. Now, public sector banks are increasingly facing more competition, whereas foreign and private sector banks are trying to win customer satisfaction, loyalty, and commitment by providing them better quality services. Service quality has become a competitive strategy in the Indian Banking sector. Thus, it is important to explore the perception of service quality and its relationship with customer satisfaction, loyalty and commitment in public and private sector banks. Another related objective was to examine the differences between public and private banks with regard to those factors. A brief literature review was done to examine the existing literature to identify the gap in the literature. Based on the gaps, objectives were formulated and research questions were framed and examined.

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LITERATURE REVIEW

Service quality is a way of thinking about how to satisfy customers so that they hold a positive attitude towards the services they have received (Ostrowski, O'Brian & Gordon, 1993). Delivering quality service is considered to be an essential strategy to succeed in a competitive business environment. Firms which offer superior services achieve higher growth in the market and increase profits.

Many studies have examined the relationship of service quality and customer satisfaction (Arasli, Katircioglu & Mehtap-Smadi, 2005; Lassar, Manolis & Winsor, 2000), customer loyalty (Bloemer,Ruyter & Peeters, 1998; Ganesan, 2007), complaint (Yavas, Benkenstein & Stuhldreier, 2004; Yavas, Bilgin & Shemwell, 1997), switching (Yavas, Benkenstein & Stuhldreier, 2004), and commitment (Venetis & Ghauri, 2004; Wetzels, Ruyter & Birgelen, 1998; Yavas, Benkenstein & Stuhldreier, 2004; Yavas, Bingin & Shemwell, 1997).

Over the decades, customer satisfaction has been used as one of the key constructs to predict consumer behaviour and has been developed as a well-known and established concept in consumer research (Yi, 1990). Customer satisfaction is a function of the customers' expectation and perceived performance of the product/service, which is necessary not only to retain the customers but also to attract new customers. A highly satisfied customer engages himself in repeat purchase and also echoes the positive sides of the product and the service provider. If a customer is dissatisfied, it results in bad word-of-mouth, which spreads like wildfire. Kotler (1994) states: "*The key to customer retention is customer satisfaction*".

Customer loyalty has a powerful impact on the performance of service firms and serves as an important source of competitive advantage (Heskett, Sasser & Schlesinger, 1997; Rust, Zeithaml & Lemon, 2000; Woodruff, 1997). The consequences of enhanced customer loyalty in service firms are increased revenue, reduced customer acquisition costs and lower costs of serving repeat purchasers, leading to greater profitability (Reichheld, 1993; Reichheld & Sasser, 1990). Loyal customers are less likely to switch to a competitor due to a given price inducement, and these customers make more purchases in comparison to less loyal customers (Baldinger & Rubinson, 1996). Researchers have suggested that customer relationship with service personnel is influential in the development of customer loyalty to a service firm (Barnes, 1995; Beatty, Mayer, Coleman, Reynolds & Lee, 1996; File & Prince, 1993; Gwinner, Gremler & Bitner, 1998).

Commitment is recognized as a necessary element for successful long-term relationships (Anderson & Weitz, 1992; Dwyer, Schurr & Oh, 1987; Morgan & Hunt, 1994). To ensure that the customer is committed, a company's strategy should be customer-centered, long-term, and based on mutual relationship benefits (Adamson, Chan & Handford, 2003). Moorman, Zaltman and Deshpandé (1992) have defined commitment as "*an enduring desire to maintain a valued relationship*".

Researchers suggest that service quality is positively associated with customer satisfaction (Arasli, Katircioglu & Mehtap-Smadi, 2005; Arasli, Mehtap-Smadi & Katircioglu, 2005; Ekinci, 2003; Tsoukatos & Rand, 2006). Companies understand that service quality will have its impact on customer satisfaction (Kim, Lee, Han & Lee, 2002). A positive relationship between service quality and satisfaction is well established in the literature in the banking sector (Jamal & Naser, 2002; Sureshchandar, Rajendran & Anantharaman, 2002; Ting, 2004; Yavas, Bilgin & Shemwell, 1997).

Many studies have examined the relationship of service quality with customer loyalty (Bloemer, Ruyter & Peeters, 1998; Dean, 2002; Ganesan, 2007; Wong & Sohal, 2003), and indicate that they are positively associated. Moreover, a positive relationship between service quality and loyalty has been found in the banking sector (Bloemer, Ruyter & Peeters, 1998; Ehigie, 2006). Service quality is directly related to the customers' behavioral intentions (Venetis & Ghauri, 2004). In another study of the banking sector, service quality was linked with the behavioral outcomes as word of mouth, complaint, recommending, and switching (Yavas, Benkenstein & Stuhldreier, 2004). It was also found that service quality is related to complaint behaviour (Yavas, Bilgin & Shemwell, 1997).

Studies also indicate that service quality contributes strongly to the customer commitment, which can maintain long-term customer relationships (Yavas, Benkenstein & Stuhldreier, 2004; Yavas, Bingin & Shemwell, 1997). Venetis and Ghauri (2004) indicated that service quality has a strong and positive effect on customers' affective commitment.

Many studies have extensively examined the measurement of service quality to help practitioners effectively manage the delivery of quality service (Babakus & Boller, 1992; Carman, 1990; Cronin & Taylor, 1992; Donthu & Yoo, 1998; Grönroos, 1982; Parasuraman, Zeithaml & Berry, 1988). Among the various measurement models/frameworks on service quality available in the literature, SERVQUAL and SERVPERF are widely used by researchers in different types of organizations like banks (Arasli, Katircioglu & Mehtap-Smadi,2005 ; Cui, Lewis & Park, 2003; Newman,2001), dental services (Baldwin & Sohal,2003), hospitals (Mostafa,2005 ;Youssef, Nel & Bovaird,1995), hotels (Akan,1995), and tourism industry (Atilgan, Akinci & Aksoy, 2003).

SERVQUAL was developed by Parasuraman, Zeithaml and Berry (1988) and has been used extensively by many researchers to determine service quality (Dabholkar, Thorpe & Rentz, 1996; Engelland, Workman & Singh, 2000; Getz, Neill & Carlsen, 2001; Hussey, 1999; Nielsen & Host, 2000). It has received criticisms that include failure of its conceptual appropriateness (Van Dyke, Kappelman & Prybutok, 1997), low reliability (Teas, 1994), problems with discriminant validity (Brown, Churchill & Peter, 1993), and finally, unstable dimensionality (Asubonteng, McCleary & Swan, 1996; Buttle, 1996; Carman, 1990; Cronin & Taylor, 1994; Gagliano & Hathcote, 1994; Saleh & Ryan, 1991). SERVPERF, a modified version of SERVQUAL, was developed by Cronin and Taylor (1992), which determines service quality by measuring only performance. SERVPERF exclusively evaluates service quality on the five quality dimensions of SERVQUAL and provides adequate assessment for service quality (Bebko, 2000; Cronin & Taylor, 1992; Grönroos, 1988; Peter, Gilbert & Brown, 1993). In this study, service quality was measured using the modified scale.

There is a paucity of empirical research investigating the linkage of all the variables together like service quality and customer satisfaction, loyalty, and commitment in Indian banking industry. Another area of exploration was to examine whether the liberalization process has put pressure on nationalized banks to provide better quality services with the advent of private and foreign banks, the differences among customers of these banks with regard to these variables.

Thus, the major objective of this study was to examine the strength of association between service quality, customer satisfaction, customer loyalty and customer commitment, and also to explore the differences in perception of these variables between public and private sector banks. The following research questions were proposed to be examined:

1. What is the strength of association between service quality and customer satisfaction, loyalty, and commitment?
2. What are the differences in perception of customers regarding service quality, customer satisfaction, loyalty, and customer commitment between public and private sector banks?

METHODS

SAMPLE

The data were collected from 300 respondents, out of which 160 respondents (53 per cent) were from public sector banks, and 140 respondents were (47 per cent) from private sector banks. The banks were mainly located in West Bengal. The respondents were predominantly males (91 per cent). The respondents were savings bank account holders. Only those respondents were included who had contacts with the banks on a regular basis over the last 3 years and visited the bank premises frequently for transactions. Purposive sampling method was used to collect the data. They belonged to five public sector and three private sector banks (see table 1).

Table 1: Summary of Sample Characteristics

	Public sector banks		Private sector banks	
Age	**No.**	**Percentage**	**No.**	**Percentage**
18-29	44	27.5	39	27.86
30-39	44	27.5	43	30.71
40-49	36	22.5	42	30
50-59	24	15	11	7.86
60 and above	12	7.5	05	3.57
Total	160	100	140	100
Income (Rs)				
Up to 10000	77	48.12	52	37.14
10001-15000	45	28.12	38	27.14
15001-20000	18	11.25	20	14.29
20001-25000	09	5.63	21	15
25001 and above	11	6.88	09	6.43
Total	160	100	140	100

Education				
High School	17	10.62	02	1.43
Intermediate	15	9.37	13	9.29
Graduation	63	39.38	89	63.57
Master's Degree	56	35	31	22.14
Others	09	5.63	05	3.57
Total	160	100	140	100
Marital Status				
Single	58	36.25	44	31.43
Married	101	63.12	95	67.86
Widowed	-	-	01	.71
Separated/Divorced	01	.63	-	-
Total	160	100	140	100
Occupation				
Professionals	57	35.63	45	32.14
Sales related work	19	11.87	31	22.14
Services related work	48	30	42	30
Others	36	22.5	22	15.72
Total	**160**	**100**	**140**	**100**

MEASURES

The variables included in this study were measured using a five-point Likert Scale. The five-point scale was used for the sake of uniformity. The 43-item questionnaire was administered to all the respondents. A brief description of the various measures is presented below:

SERVICE QUALITY

In order to measure service quality, a 22 items-scale was adopted from Parasuraman, Zeithaml, and Berry (1988) which included dimensions of tangibles, reliability, responsiveness, assurance and empathy. The reliability coefficient for assurance-empathy was .89, reliability was.86, tangibles was.78, and security was.62.

CUSTOMER SATISFACTION

Customer satisfaction was measured using 4 items. The customer satisfaction scale was developed on the basis of a number of scales developed by many authors (Walter, Müller, Helfert & Ritter, 2003; Fornell, 1992; Ganesan, 2007; Levesque & McDougall, 1996). The reliability coefficient was .83.

CUSTOMER LOYALTY

Customer loyalty was measured by 13 item scales adopted from the behavioral-intensions battery (BIB) developed by Zeithaml, Berry, and Parasuraman (1996). It contained five items relating to loyalty to company, two items relating to propensity to switch, two items related to willingness to pay more, three items related to external response to problems, and one item related to internal response to problem. The reliability coefficient for loyalty to company was .84. It was .65 for response to problems; and for willingness to pay, it was.63.

CUSTOMER COMMITMENT

Customer commitment was measured using a 4 item scale adopted and modified from Garbarino and Johnson (1999) and Walter, Müller, Helfert, and Ritter (2003). These items taped the multiple facets of commitment including customer's loyalty (focus on long-term goals in a relationship), intention to invest in the relationship (expand business in the future), psychological attachment (defend outsider criticism) and capture identification with the company (proud to belong). The reliability coefficient was .82.

RESULTS AND DISCUSSION

The main objective of this study was to examine the strength of association between service quality and customer satisfaction, customer loyalty and customer commitment. This study was conducted in an exploratory framework using survey research to address the research questions. The data were analyzed using multiple regression analysis and Analysis of variance (ANOVA). First of all, the data were subjected to factor analysis to define the constructs, and establish the validity of the dimensions.

All the variables included in the study were factor analyzed using principle component with varimax rotation, as they appeared to be interrelated with each other. The highest loading against any factor was taken into account as a representative of that scale showing the construct validity of the scale. The factors obtained from this analysis were used in further statistical analysis. A summary of the factor analysis results for different scales is given in Table 2.

Table 2: Summary of Factor Analysis Results

a) Service Quality

Factor1		Factor 2		Factor3		Factor4	
Assurance-Empathy		Reliability		Tangibles		Security	
Item	Loading	Item	Loading	Item	Loading	Item	Loading
11	.55	5	.66	1	.75	9	.67
14	.56	6	.70	2	.73	13	.45
16	.56	7	.74	3	.76	15	.81
17	.54	8	.73	4	.71		
18	.73	10	.50				
20	.77	12	.49				
21	.75	19	.45				
22	.71						
Eigen Value	8.94	1.78		1.26		1.01	
Percentage of Variance	41	8		6		4	
Total variance explained = 59 per cent							

b) Customer Satisfaction

Factor1	
Customer Satisfaction	
Item	Loading
1	.86
2	.88
3	.78
4	.84
Eigen Value	2.7
Percentage of Variance	67

c) Customer Loyalty

Factor1		Factor 2		Factor3	
Loyalty to company		Response to problems		Willingness to pay	
Item	Loading	Item	Loading	Item	Loading
1	.69	10	.63	7	.55
2	.81	11	.82	8	.78
3	.75	12	.84	9	.81
4	.76	13	.33		
5	.79				
6	.63				
Eigen Value	3.83	2.07		1.46	
Percentage of Variance	30	16		11	
Total variance explained= 57 per cent					

d) Customer Commitment

Factor1	
Customer Commitment	
Item	Loading
1	.84
2	.88
3	.70
4	.86
Eigen Value	2.70
Percentage of Variance	67

FACTOR ANALYSIS RESULTS

SERVICE QUALITY SCALE

Factor analysis results showed 4 factors identified as assurance-empathy, reliability, tangibles, and security. Assurance-empathy, reliability, tangibles, and security factors had an Eigen value of 8.94, 1.78, 1.26 and 1.01 respectively, and altogether accounted for 59 per cent of the variance.

CUSTOMER SATISFACTION SCALE

Factor analysis performed using the responses on the 4-item scale of customer satisfaction resulted in a single factor. It had an Eigen value of 2.70 and accounted for 67 per cent of variance.

CUSTOMER LOYALTY SCALE

The 13-item scale of customer loyalty was factor analyzed, which resulted in three distinct factors, namely loyalty to company, response to problems, and willingness to pay. It had an Eigen value of 3.83, 2.07, and 1.46 respectively and together accounted for 57 per cent of variance.

CUSTOMER COMMITMENT SCALE

Factor analysis for the 4-item scale of customer commitment resulted in one factor with an Eigen value of 2.70. It accounted for 67 per cent of variance.

Therefore, the variables namely, service quality, and customer loyalty emerged as multidimensional in nature, while customer satisfaction and commitment emerged as a single factor.

Service quality was treated as 'independent' or predictor variable, and customer satisfaction; customer loyalty and customer commitment were treated as 'dependent' or criterion variables. First of all, means, SD, and inter-correlation among all the variables were examined. The results indicated a positive relationship of service quality factors (assurance-empathy, reliability, tangibles, and security) with customer satisfaction, loyalty to company, willingness to pay and customer commitment respectively. The results also showed a negative relationship between assurance-empathy and response to problems (see table 3). Multicollinearity among the variables was not found, as none of the variables were highly correlated (>.80). This shows that all the variables were independent though related with each other.

Table 3: Descriptive Statistics and Pearson Correlations Among The Variables

Variables	Mean	S.D	A-E	R	T	S	CS	LTC	RTP	WTP	CC
A-E	27.77	6.17		.77**	.45**	.58**	.62**	.62**	-.02	.28**	.59**
RE	24.96	5.45			.47**	.61**	.53**	.48**	.04	.26**	.47**
T	15.29	2.92				.36**	.44**	.37**	.07	.28**	.42**
S	11.30	2.33					.40**	.46**	.02	.16**	.39**
CS	14.59	3.67						.72**	-.01	.37**	.66**
LTC	22.36	4.57							-.08	.36**	.77**
RTP	15.16	3.08								-.14*	-.05
WTP	8.40	2.75									.43**
CC	15.17	3.23									

** Correlation is significant at 0.1 level (2-tailed). * Correlation is significant at 0.05 level (2-tailed)

Notes: Assurance-Empathy (A-E), Reliability (RE), Tangibles (T), Security (S), Customer Satisfaction (CS), Loyalty to Company (LTC), Response to Problems (RTP), Willingness to Pay (WTP), Customer Commitment (CC))

Next, multiple regression analysis (MRA) was used to examine the strength of association between independent and dependent measures, taking the overall sample into consideration. In order to enhance the clarity of the results (that the regression equation is acceptable), the following characteristics were used. The identified combination of variables should explain the maximum amount of variance in the criterion as measured by the adjusted coefficient of determination ($\underline{R}^2$).

Research Question 1: What is the strength of association between service quality and customer satisfaction for the overall sample, public and private sector banks separately?

Multiple regression analysis (MRA) was performed separately for overall sample, public and private sector banks using service quality dimensions as predictors and customer satisfaction as criterion variable. The results regarding the overall sample showed that the dimensions of service quality namely, assurance-empathy (β=.53) and tangibles (β=.20), emerged as significant predictors of customer satisfaction explaining 41 per cent of the variance for the criterion measure (F=104.12, p<. 01). Findings for public sector banks showed that the same dimensions of service quality, namely assurance-empathy (β=.44) and tangibles (β=.28) emerged as significant predictors and accounted for 39 per cent of the variance for the criterion measure (F=51.59, p<. 01). The results regarding private sector banks showed that dimensions of service quality, namely assurance-empathy (β=.43) and reliability (β=.25), emerged as significant predictors and accounted for 40 per cent of the variance for the criterion measure (F=46.66, p<. 01) (see table 4).

Table 4: Summary of regression analysis results showing service quality dimensions as predictors and customer satisfaction as criterion measure for the overall sample-public sector and private sector banks

Predictors	Customer satisfaction		
	Overall	Public sector	Private sector
A-E	.53**	.44**	.43**
R E			.25**
T	.20**	.28**	
S			
R	.64	.63	.64
R^2	.41	.40	.41
$\underline{R}^2$	.41	.39	.40
F	104.12**	51.59**	46.66**

β values** significant at 0.01 level * Significant at 0.05 level.
A-E – Assurance-Empathy R E – Reliability T – Tangibles S – Security
CS-Customer Satisfaction

The results regarding the overall sample indicate that assurance-empathy (the service quality dimension) elements which included employees' positive attitude, prompt service and personal attention are likely to increase customer satisfaction. The results regarding public sector banks are the same for private sector banks and suggest that assurance-empathy (a service quality dimension) elements such as understanding the feelings of customers, assuring them of prompt and hassle-free service, and making them understand that they would be provided better quality services accordingly are likely to increase customer satisfaction. The results regarding private sector banks suggest that assurance-empathy, that is comprehending customer's needs and expectation and assuring them of speedy and reliable services and personal attention to customers will increase customer satisfaction. It means that customers will be satisfied if management attitude towards customers, like showing empathy and helping them, is taken care of. The results regarding overall sample and public sector banks also suggest that certain tangible factors (the service quality dimension) such as banks' physical facilities (parking facilities, spacious seating arrangements inside the bank) and materials associated (pamphlets, statements, easy accessibility of different types of forms) will satisfy customers, while private sector banks' results show that reliability factors such as providing services at the promised time and being consistent in their approach and commitment to customer would increase customer satisfaction.

Research Question 2: What is the strength of association between service quality and customer loyalty for the overall sample, public and private sector banks separately?

Multiple regression analysis (MRA) was performed using service quality dimensions as predictors and dimensions of customer loyalty as criterion variable. The results for the overall sample showed that assurance-empathy(β=.52) and security (β=.16) emerged as significant predictors of loyalty to company (a dimension of customer loyalty), explaining 39 per cent of the variance for the criterion measure (F = 97.89, p<.01). Findings for public sector banks showed that service quality dimensions of assurance-empathy (β=.53) and tangibles (β=.19) together accounted for 42 per cent of the variance for the criterion measure (F = 57.43, p< .01). The results regarding private sector banks showed that assurance-empathy (β=.44) and security (β=.27) together accounted for 40 per cent of the variance for the criterion measure (F = 46.38, p< .01) (see table 5,6 and 7).

Table 5: Summary of regression analysis results showing service quality dimensions as predictors, and customer loyalty factors as criterion measures for the overall banking sector

	Overall Sample		
Predictors			
	LTC	RTP	WTP
A-E	.52**		.20**

R E			
T			.19**
S	.16**		
R	.63		.33
R^2	.40		.11
$\underline{R}^2$	.39		.10
F	97.89**		18.27**

β values** Significant at 0.01 level * Significant at 0.05 level.
A-E – Assurance-Empathy R E – Reliability T – Tangibles S – Security
LTC – Loyalty to Company RTP – Response to Problems WTP – Willingness to Pay

Table 6: Summary of regression analysis results showing service quality dimensions as predictors, and customer loyalty dimensions as criterion measures for the public sector banks

Public Sector			
Predictors			
	LTC	RTP	WTP
A-E	.53**	-.48**	
R E		.29*	
T	.19*		.27**
S			
R	.65	.29	.27
R^2	.42	.09	.07
$\underline{R}^2$	.42	.08	.07
F	57.43**	7.42**	12.68**

β values** Significant at 0.01 level * Significant at the 0.05 level.
A-E – Assurance-Empathy R E – Reliability T – Tangibles S – Security
LTC – Loyalty to Company RTP – Response to Problems WTP – Willingness to Pay

Table 7: Summary of regression analysis results showing service quality dimensions as predictors and customer loyalty factors as criterion measures for the private sector banks.

Private Sector			
Predictors			
	LTC	RTP	WTP
A-E	.44**		
R E			.47**
T		.30**	
S	.27**		
R	.64	.30	.47
R^2	.40	.09	.22
$\underline{R}^2$	.40	.08	.22
F	46.38**	13.34**	39.86**

β values** Significant at 0.01 level * Significant at 0.05 level.
A-E – Assurance-Empathy R E – Reliability T – Tangibles S – Security
LTC – Loyalty to Company RTP – Response to Problems WTP – Willingness to Pay

The results regarding overall public and private sector banks suggested that mainly assurance-empathy (the service quality dimension) elements such as employee's behaviour, employees understanding of exact needs and interests of the customer are likely to increase loyalty towards a company. Apart from assurance-empathy, the results regarding overall and private sector banks suggested that the feeling of security (the service quality dimension) such as that in case of safe transactions, treatment of personal information as private and confidential, error-free records, quick response to customer requests are likely to increase loyalty to company, while the results regarding public sector banks suggested that enhancements in tangibles (the service quality dimension) element such as employees' neat appearance are likely to increase loyalty to company.

The results regarding public sector banks showed that dimensions of service quality namely, assurance-empathy (β=–.48) and reliability (β=.29) together accounted for 8 per cent of the variance for the criterion measure ($F = 7.42$, $p < .01$). In the case of private sector banks, tangibles (β=.30), a dimension of service quality, accounted for 8 per cent of the variance for the criterion measured i.e. response to problems (F = 13.34, p< .01).

The results regarding public sector banks shows that if employees pay attention to the supreme interest of the customer, keep promises in a timely manner, handle complaints quickly, then there would be no problem and they would be free of any anxiety. The results regarding private sector banks suggested that improvements in tangibles elements should lead to reduction in problem. In this study, it was found that customers had no complaint and would not switch to another bank if they are getting modern-looking equipment from the banks.

The dimensions of service quality namely, assurance-empathy (β=.20) and tangibles (β=.19) significantly predicted willingness to pay (a dimension of customer loyalty), together explaining 10 per cent of the variance for the criterion measure (F = 18.27, p<.01) for the overall sample. Findings for public sector banks showed that tangibles (β=.27) emerged as a significant predictor of willingness to pay (a customer loyalty dimension), explaining 7 per cent of the variance (F = 12.68, p<.01), and for private sector banks, reliability, (β=.47) emerged as a significant predictor of willingness to pay (a customer loyalty dimension) accounting for 22 per cent of the variance (F = 39.86, p<.01).

The results for the overall sample suggested that enhancements in assurance-empathy (the service quality dimension) elements such as employees' understanding of specific needs of the customer, assure to supply prompt service are likely to increase willingness to pay. It means customers are willing to pay more if they are getting better service. They do not mind if their needs are met and banks are able to satisfy them by providing better quality services. The results regarding the overall sample and public sector banks suggested that enhancements in tangibles (the service quality dimension) that is, physical facilities like getting proper parking place for parking vehicles, spaciousness, enough arrangements for seating inside the bank are likely to increase willingness to pay. The results regarding private banks suggested that employees are always ready to help customers, suitable operation hours are likely to increase the willingness to pay.

Research Question 3: What is the strength of association between service quality and customer commitment for the overall sample-public and private sector banks separately?

Multiple regression analysis (MRA) was performed using service quality dimensions such as predictors, and customer commitment as criterion variable. The results for the overall sample showed that service quality dimensions, namely assurance-empathy (β=.50) and tangibles (β=.20), emerged as significant predictors of customer commitment and accounted for 37 per cent of the variance (F=89.79, p<. 01). Findings for public sector banks showed that assurance-empathy (β=.45) and tangibles (β=.20) emerged as significant predictors of commitment and accounted for 33 per cent of the variance for customer commitment (F=39.49, p<.01). Findings for private sector banks indicated that assurance-empathy (β=.42) and reliability (β=.23) emerged as significant predictors of commitment and accounted for 35 per cent of the variance for the criterion measure i.e. customer commitment (F=39.10, p<. 01) (see table 8).

Table 8: Summary of regression analysis results showing service quality dimensions as predictors and customer commitment as criterion measure for the overall sample-public sector and private sector banks.

Predictors	Customer commitment		
	Overall	Public sector	Private sector
A-E	.50**	.45**	.42**
R E			.23*
T	.20**	.20*	
S			
R	.61	.58	.60
R^2	.38	.34	.36
$\underline{R}^2$	.37	.33	.35
F	89.79**	39.49**	39.10**

β values** significant at 0.01 level * Significant at 0.05 level.
A-E – Assurance- Empathy R E – Reliability T – Tangibles S – Security CC – Customer Commitment

The results regarding overall sample and public sector banks suggest that enhancements in assurance-empathy (a dimension of service quality) such as proper caring of customers by employees and their courteous behaviour, and understanding customer's needs to satisfy them, along with tangible elements such as modern-looking equipment, internet banking, online transactions and ATM facilities would result in customer commitment. Customers would like to maintain a long-term relationship with the bank if they are provided these amenities, facilities and treated with care and respect. The results regarding private sector banks show that assurance-empathy (a dimension of service quality) such as proper caring of the customer by employees, employees' understanding of the customers requirement regarding banking services, and providing services as per the expectations of the customers, providing error-free documents, and convenient operating hours would help in increasing customer commitment. Customers would be proud to acknowledge themselves to their banks if someone talks good about the bank, as they are receiving better quality service. They would continue to maintain a long-term relationship with the bank and always recommend others to do banking with such banks.

After examining the strength of association among the independent and dependent variables, customer perception with regard to the differences on the customer satisfaction, loyalty to company, response to problems, willingness to pay and customer commitment was examined between the public and private sector banks using Analysis of Variance (ANOVA).

Research Question 4: What are the differences in customer's perception between public and private sector banks with regards to customer satisfaction, loyalty to company, response to problems, willingness to pay and customer commitment?

In order to examine the differences, analysis of variance (ANOVA) was conducted. The results of ANOVA (see table 9) showed that there were significant differences in public and private sector banks with regard to customer commitment ($F=18.13$, $p<.01$), customer satisfaction ($F=15.35$, $p<.01$), willingness to pay ($F=9.04$, $p<.01$), and loyalty to company ($F=5.97$, $p<.05$). However, no significant differences were found for response to problems ($F=.06$, $p>.05$).

Table 9: Summary of Analysis of Variance (ANOVA) examining differences in customer satisfaction, loyalty to company, response to problems, willingness to pay and customer commitment in public sector banks and private sector banks

		Sum of Squares	df	Mean Square	F
Customer Satisfaction	Between Groups	197.38	1	197.38	
	Within Groups	3831.19	298	12.86	
	Total	4028.57	299		15.35**
Loyalty to Company	Between Groups	122.40	1	122.40	
	Within Groups	6108.72	298	20.50	
	Total	6231.12	299		5.97*
Response to Problems	Between Groups	.58	1	.58	
	Within Groups	2831.74	298	9.50	
	Total	2832.32	299		.06
Willingness to Pay	Between Groups	66.50	1	66.50	
	Within Groups	2191.29	298	7.35	
	Total	2257.79	299		9.04**
Customer Commitment	Between Groups	179.39	1	179.39	
	Within Groups	2947.60	298	9.89	
	Total	3126.99	299		18.14**

**Significant at 0.01 level * Significant at 0.05 level

The results suggest that customers were better satisfied in private sector banks than in public sector banks. This shows that as compared to the public sector, the employees of the private sector were provided relatively better quality service and paid personal attention while serving customers. Results also showed that customers continue to do more business with private sector banks than with public sector banks, mainly due to their management's understanding of specific needs of the customers. Customers would recommend their banks to others, as employees were more responsive to their requests. They would not mind paying extra charges due to the convenient operating hours of the bank. Customers from private sector banks seem to be satisfied because of management's willingness to help customers, and their adequate knowledge about banking services. They would also defend when someone would criticize their bank. As it is evident that public sector banks have been losing customers to private sector banks, they need to do something to satisfy their customers by providing better and expeditive quality services for increased loyalty and commitment.

SUMMARY AND CONCLUSION

This study examined the strength of association among the 'independent variable' namely service quality perception and 'dependent variables' namely customer satisfaction, customer loyalty, and customer commitment. The results showed that customers value four dimensions of perceived service quality: assurance-empathy, tangibles, security and reliability. Banks should pay attention to these dimensions of service quality. They should pay more attention to the dimensions of assurance-empathy in pursuit to increase loyalty to the company, willingness to pay and customer commitment. All the above dimensions of service quality tend to have a strong impact on customer satisfaction depending on the quality performance. Customer satisfaction depends upon the quality of services provided by these banks. It can be said that if banks are providing better quality services, then customers would be satisfied. Banks must initiate action to assure their customers that doing business with them (the bank) is totally secure, and their money is safe with them. The results also showed significant differences between public and private sector banks with regard to customer satisfaction, commitment, and two dimensions of loyalty namely, loyalty to company and willingness to pay. Public sector banks should focus on assurance-empathy, tangibles, and the private sector should focus on providing reliable services.

LIMITATIONS

The study has certain limitations like the sample size was relatively small and was drawn from a specific geographical region (eastern part of the country), which makes the generalization of the findings difficult. The data could have been collected from other financial institutions and insurance sector. The data could have been put in a structural model and tested using structural equation modeling to get an integrated result.

SCOPE FOR FURTHER RESEARCH

Based on the limitations, certain suggestions are offered for further research. Further research may consider analyzing service quality of foreign sector banks, and comparing them with public sector and private sector banks. Future research should incorporate other types of service providers, and more variables to combine them into an integrated model to get a better understanding of the relationship among these variables in the Indian banking sector.

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Sales break up

Product	Agrochemicals	Industrial Chemicals & Intermediates	Pharmaceuticals
% of sales	58%	31%	11%

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