

# **EFFECT OF SERVICE QUALITY ON CONSUMER SATISFACTION, COMMITMENT AND LOYALTY IN INDIAN BANKING INDUSTRY**

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## **ABSTRACT**

*Due to the Liberalization and Globalization, banking sector is also progressing at a very fast pace and due to which problem arises is of competition in the banking industry. It is very difficult for banks to survive in this highly competitive world if they are unable to satisfy their consumers. Now days it is very important for any organization to retain their consumers and for retaining the consumers banks need to assure loyalty factor in the consumers and for loyalty consumer must pass the test of satisfaction and commitment. Because service is an intangible concept and therefore, it is very difficult to measure its quality and it is service quality that determines the level of satisfaction of the customers from a particular bank. For measuring the firm performance Consumers satisfaction plays a vital role. The ability to satisfy customers is vital for a number of reasons. The measurement of consumer satisfaction in service industries, compared to manufacturing industries, requires special consideration due to difficulties of finding accurate measurement parameters. Of all the service industries, the banking and financial sector has a dominant position and a discussion of customer satisfaction-based performance measurements in the financial sector requires special attention. This study shows the relationship between service quality, consumer satisfaction, consumer commitment and consumer loyalty the study was empirical in nature and it include the sample size of 300 the data was collected through questionnaires and its contained 37 items, tools for data analysis shows that which type of test have been applied. In this research reliability, validity, CFA and SEM test has been applied. Analysis reveals that the service quality has more effect on consumer loyalty as compare to consumer commitment and consumer satisfaction in the Gwalior region.*

**KEYWORDS:** Service Quality, Consumer Satisfaction, Consumer Commitment, Consumer Loyalty, Banking Industry.

## **INTRODUCTION**

### **SERVICE QUALITY**

Service quality is defined as the degree of discrepancy between customers' normative expectations for service and their perceptions of service performance cited in Samraz Hafeez and Bakhtiar Muhammad (2012) given by (Parasuraman et al., 1985) Service quality can be defined as meeting the needs and expectations of the customer (Smith, 1998). The definition of service quality can be extended to the overall evaluation of a specific service with ten service quality dimensions: tangibles, reliability, responsiveness, competence, courtesy, credibility, security, access, communication and understanding/knowing the customer (Parasuraman et al., 1985, 1988).

Delivering appropriate service quality plays an increasingly important role in service industries such as insurance, banking, etc as the service quality is critical to the profitability and survival of these organizations. Therefore, it is worth to measure service quality to obtain better understanding of the service quality is delivered by organizations (Tahir & Abubakar, 2007).

Customer service is one of the core parts of the banking industry. Banking industry is facing challenges due to concentrated competition, changing market, risk and uncertainty, environment, and demanding customers. These changes impacted on both the structure of the industry and the nature of competition between banks. That's been said, service quality has become an increasingly important factor for surviving and success in the banking sector and there is a need to identify the characteristic of the service quality perceived by the customers of banks. Service quality is the combination of two words i.e., service and quality which has different meaning at different sector. Each word has its own meaning:

**Service:** A type of economic activity that is intangible is not stored and does not result in Ownership. A service is consumed at the point of sale. Services are one of the two key components of economics, the other being goods.

**Quality:** Quality is the ongoing process of building and sustaining relationships by assessing, anticipating, and fulfilling stated and implied needs.

### **CONSUMER SATISFACTION**

Sited in Dr. Sandip Ghosh Hazra (2013) Liljander, V., & Strandvik, T. (1994) defined satisfaction as the "customer's fulfillment response" which is an evaluation as well as an emotion-based response to a service. In

the present study, the more popular Westbrook and Oliver's (1991) four emotion-laden items have been used. Several studies seem to conclude that satisfaction is an affective construct rather than a cognitive construct (Oliver, 1997; Olsen, 2002). Cronin et al., (2000) assessed service satisfaction using items that include interest, enjoyment, surprise, anger, wise choice, and doing the right thing.

### **CONSUMER COMMITMENT**

Along with cited in Lo Liang Kheng, Osman Mahamad, T. Ramayah, and Rahim Mos Ahab (2010), Gundlach, Achrol, and Mentzer (1995) believe commitment to entail three different dimensions: Affective commitment describes a positive attitude towards the future existence of the relationship. Instrumental commitment is shown whenever some form of investment (time, other resources) in the relationship is made. Finally, the temporal dimension of commitment indicates that the relationship exists over time (cf. also Garbarino and Johnson 1999).

In relationship marketing literature, commitment has widely been acknowledged to be an integral part of any long-term business relationship (cf. Anderson and Weitz 1992; Gundlach, Achrol, and Mentzer 1995, Morgan and Hunt 1994). In most cases it is described as a kind of lasting intention to build and maintain a long-term relationship (e.g. Anderson and Weitz 1992; Dwyer, Schurr, and Oh 1987; Moorman, Zaltman and Deshpande 1992).

### **CONSUMER'S LOYALTY**

Customer loyalty is a feeling of commitment on the part of the consumer to a product, brand, marketer, or services above and beyond that for the competitors in the market place, which results in repeat purchase cited in Ronak A. Mehta (2013), (Szmigin and Carrigan, 2001). A loyal customer to a bank is thus, one who will stay with the same service provider. According to a model presented by Zeithaml, Berry and Parasuraman (1996), behavioral intention can be captured by such measures as repurchase intentions, words of mouth, loyalty, complaining behavior, and price sensitivity. Loyal customers are important, because they contribute to the bank's profitability by passing positive words of mouth and also retain their customer ship. (Anderson and Mittal, 2000; Storbacka et al. 1994) loyalty is predominantly satisfaction driven (Rust et al., 1995) and therefore customer's satisfaction measurements are believed to give a better indication of future performance of service firms (Anderson and Fornell, 2000).

### **LITERATURE REVIEW**

Hafeez and Muhammad (2012) their research was in the field of Customer Satisfaction and Loyalty Programs on Customer's Loyalty: Evidence from Banking Sector. They identified that in that particular research there is a positive and significant relationship between service quality and customer's loyalty in banking sector. Service quality, customer satisfaction and loyalty programs are the important factors that can increase the loyalty of a customer so banks must focus on providing loyalty programs to their loyal and valued customers. They also recommend that banks should focus on improving the quality of their services for better and greater customer satisfaction and customer loyalty. Dhandabani (2010) researcher emphasize for training service staffs and for formulating competitive operations strategy based on results reported in the present study, consequently, service providers in the commercial banks could interpret these results suggesting that they may downplay the role of reliability, responsiveness, knowledge and recovery; and tangibles. Kheng, Mahamad, Ramayah, and Ahab (2010) researcher founded that Customer loyalty remains an important factor that bank has to ensure in order to make profit. Customer are more educated and knowledgeable, their demand is also on an increasing trend. In order to stay in the business, bank need to improvise their customer service campaign. Putra (2013) Researcher found a positive and significant effect between service qualities on perceived service value by the customer; service quality on customer loyalty and service on the loyalty value through services value. Service quality is considered give a positive impact on loyalty through service value. Yet, the understanding the influence customers loyalty variable will help the bank managers to develop a program for suitable action that provides better service and build superior service value which ultimately will increase customer loyalty.

Mehta (2013) this research was in the field of Banking Services and Customer Satisfaction of Public and Private Sector Banks in Navsari City and researcher found that the banks should pay special attention to 'Human Resource Development in respect of banking system. To develop the social banking environment, bank officials should maintain good relationship with the customers. As majority of private banks doing aggressive marketing they have succeeded in attracting more customers, but PSU are lacking in these skills so different ways to attract customers must be done like advertisement, workshops, and sales promotion activities. Ramachandran and Chidambaram (2012) they emphasize on the organizations should continuously monitor and evaluate the services offered by them to the customers and they should keep themselves ahead of their own competitors. Attraction, retention and enhancement of the customer relationship are essential to maintain, delighted and committed customers, who form the basis for the sustainable competitive position of the bank. Hazra (2013) his research was in the field of customer satisfaction, customer commitment and customer trust: researcher identified the

significant differences between public and private sector banks with regard to customer satisfaction and customer commitment. The education of the customer also made a difference as the result showed that highly educated customers are more satisfied and committed to their banks. The results regarding occupational differences among customers showed that business professionals are more satisfied and committed to their banks compared to other occupational categories. Jain, Yadav, Saxena and Mathu (2013) they founded that there is significant impact of personnel behavior on customer satisfaction and there is a positive impact on customer satisfaction of the perceived service quality which leads to the not only customer satisfaction but increases loyalty and commitment toward bank.

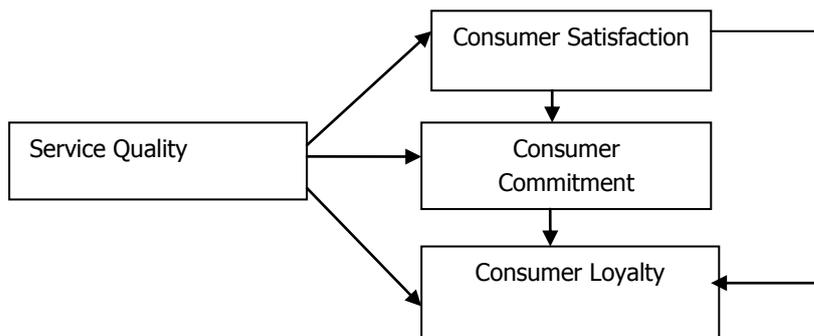
Anand and Selvaraj (2012) their research was on demographic variables and they identified that for every organization, customer satisfaction plays vital roles that enhance loyalty and profit. Earlier all sectors focused on Market Orientation, but now they should focus on Customer Orientation for their growth in the competitive market. Due to rapid changes in technology and competition among the banking sectors, it is inevitable for the service organization to study the impact on customer satisfaction. Jain, Yadav, Saxena and Mathu (2013) their research was in the field of Awareness of Customers on Service Quality of Public Sector Banks and they founded that there is significant impact of personnel behavior on customer satisfaction and there is a positive impact on customer satisfaction of the perceived service quality which leads to the not only customer satisfaction but increases loyalty and commitment toward bank. Fatima and Razzaque (2010) their research was in the field of retail banking they founded that service quality and customer involvement do impact customer satisfaction in the retail banking sector of India as they do in the West; customer involvement playing a mediating role in the quality– satisfaction.

### **RATIONALE OF THE STUDY**

The main concern of the study is to provide information that would help the management of the banks located in Gwalior region to evaluate and re-design their service quality to improve the overall customer satisfaction levels, which can help them, in retain their existing customers and also attract new ones in today’s competitive environment. Research in Indian context with reference to Gwalior region in such issues are still appears to be scant and sparse. The current study would like to fill that particular research gap. Ramachandran and Chidambaram (2012) in their particular research they recommend that, the organizations should continuously monitor and evaluate the services offered by them to the customers. In this research focus was on to improve the overall customer satisfaction levels, which can help them, in retain their existing customers and also attract new ones in today’s competitive environment. Hazra (2013) in his particular research showed that business professionals are more satisfied and committed to their banks compared to other occupational categories. In this particular research there is no categories the customers we focuses to improve the overall customer satisfaction levels, which can help them, in retain their existing customers and also succeeded in attracting more customers in today’s competitive environment.

### **OBJECTIVES OF THE STUDY**

- To identify the factors underlying service quality, consumer satisfaction, consumer commitment and consumer loyalty.
- To develop a model of service quality, consumer satisfaction, consumer commitment and consumer loyalty and evaluate the relationship which shown in the model.
- To test the model.
- To open new vista for further study.



## NULL HYPOTHESES

- (H01): There is no relationship between Service Quality and Consumer Satisfaction.
- (H02): There is no relationship between the Service Quality and Consumer Commitment.
- (H03): There is no relationship between the Service Quality and Consumer Loyalty.
- (H04): There is no relationship between Consumer satisfaction and Consumer Commitment.
- (H05): There is no relationship between Consumer Commitment and Consumer Loyalty.
- (H06): There is no relationship between Consumer Satisfaction and Consumer Loyalty

## RESEARCH METHODOLOGY

The study was empirical in nature and field survey was used to complete it. Population of the study was all the customers of Bank within Gwalior city. Individual respondent was the sampling element. 300 individual respondent formed the sample. A purposive non random Sample technique was used. For the purpose of data collection, a Standardized questionnaire of Parasuraman, Zeithaml and berry (1988) was utilized to measure service quality, to measure consumer satisfaction scale was developed on the basis of scales developed by many authors (Walter, Muller, Helfert and Ritter, 2003; fornell 1994; Jap and Ganesan, 2000), to measure consumer commitment scale was developed on the basis of scale developed by Garbarino and Johnson (1999); Walter, Muller, Helfert and Ritter (2003) and to measure consumer loyalty scale was developed on the basis of Zeithaml, berry and Parasuraman (1996). The data was collected on a Likert-type scale of 1 to 5, where 1 represented for minimum agreement and 5 represented maximum agreement. For the purpose of data analysis, Reliability test was applied to check the reliability of the questionnaires separately with the help of Croanbach' Alpha. Validity test, face validity, content validity, constructs validity and discriminant validity were applied to check the validity of the questionnaire. Exploratory Factor analysis was applied using SPSS 18 to identify underlying factors of the variables in the questionnaire. Confirmatory factor analysis was applied using AMOS to confirm the factors of the variables and Structural equation Modeling was applied using AMOS to check effect of independent variables on dependent variable and to test the model.

## RESULTS

### Reliability

Table 1: Reliability of the measures which was used in this research paper their results are as follows

S. NO.	Variable Name	Cronbach's Alpha	No. of Items
1.	Service Quality	0.944	21
2.	Consumer Satisfaction	0.828	6
3.	Consumer Commitment	0.832	6
4.	Consumer Loyalty	0.772	4

The results of the reliability are clearly indicating that all the measures are having reliability higher than the book value which is 0.7 hence the questionnaire is highly reliable.

**Kaiser – Meyer – Olkin Measures of Sampling Adequacy and Bartlett's Test of Sphericity:** The results are shown in the table

**Table 2:**

S. NO.	Variable Name	KMO	Bartlett's Test of Sphericity	DF	Sig.
1.	Service Quality	0.926	4328.486	210	0.000
2.	Consumer Satisfaction	0.694	975.762	15	0.000
3.	Consumer Commitment	0.763	787.026	15	0.000
4.	Consumer Loyalty	0.671	367.474	6	0.000

Kaiser – Meyer – Olkin Measures of Sampling Adequacy test was applied to check the adequacy of the sample in other words that data was normally distributed or not if the value of KMO lies between 0.5 to 1 then data is

normally distributed from the table we can see that all the measures having the value greater than the 0.5 hence the data is quite adequate to consider the data for factor analysis.

Bartlett's Test of Sphericity test was applied to check the null hypothesis that item- to- item correlation matrix was an identity matrix. The hypothesis was tested through Chi- Square test; the values of Chi- Square for service quality (4328.486), consumer satisfaction (975.762), consumer commitment (787.026) and consumer loyalty (367.474) all are significant at 0% level of significance. Therefore, null hypothesis was rejected, indicating that the item- to- item correlation matrix is not an identity matrix and therefore data of all the measures were suitable for the factor analysis.

Factor Analysis: Principle component factor analysis with varimax rotation was applied to find out the underlying factors of the questionnaire. The factor analysis for service quality resulted in 4 factors, factor analysis for consumer satisfaction resulted in 2 factors, factor analysis for consumer commitment resulted in 2 factors and factor analysis for consumer loyalty resulted in 1 factor. The details about factors, the factor name, Eigen value, and items converged; factor loadings and variance% are shown follows:

Table 3: Principal Component Analysis

<b>Service Quality</b>				
<b>Factor Name</b>	<b>Eigen Value</b>	<b>Variance Explained</b>	<b>Items Converged</b>	<b>Factor Loads</b>
Responsiveness & Assurance	4.699	22.376%	15. Trust	0.805
			13. Sympathetic & reassuring	0.804
			17. Adequate support	0.755
			11. Replies promptly	0.723
			9. Prompt service	0.635
			19. Operating hours convenient	0.627
Reliability	3.972	18.915%	5. Dependable	0.532
			18. Individual attention	0.797
			14. Safe in transactions	0.733
			16. Polite	0.706
			7. Promise	0.600
Empathy	3.003	14.301%	8. Records Accurately	0.591
			20. Know what your needs are	0.541
			10. Willing to help customers	0.743
			1. Up to date equipment	0.651
			21. Quality of bank's services	0.644
Tangibles	2.873	13.682%	12. Special Care	0.731
			3. Well dressed	0.574
			4. Appearance	0.790
			6. Certain time	0.760
<b>Consumer Satisfaction</b>				
Compatibility	2.367	39.444%	2. Physical facilities	0.644
			25. Trust	0.920
			27. Understands	0.844
Satisfied	2.273	37.8795	23. Managed	0.840
			24. Satisfied	0.971
			22. Satisfied bank's bonus programme	0.830
			26. Satisfies needs	0.804
<b>Consumer Commitment</b>				
Interpersonal relationship	2.368	39.465%	35. Emotional needs	0.889
			33. Customization service	0.834
			37. Switch the bank	0.816
Committed	2.074	34.574%	34. Personal preference	0.876
			36. Frequently visited	0.844
			32. Discount provided to me	0.685
<b>Consumer Loyalty</b>				
Consumer loyalty	2.379	59.476	31. Recommend	0.827
			30. Conduct	0.800
			28. Changing banks	0.766
			29. Loyal customer	0.684

## CFA of Service Quality standardized estimates

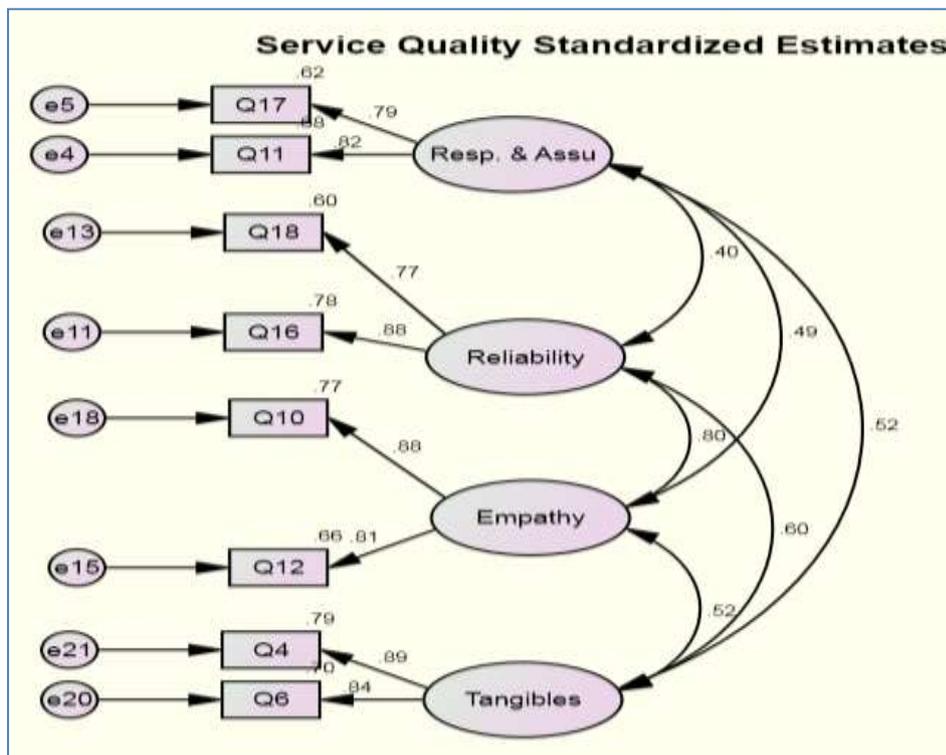


Figure 1: CFA of Service Quality

After applying EFA on Service Quality 4 factors of service Quality were identified responsiveness & assurance (7 items), reliability (6 items), empathy (5 items) and tangibles (3 items). CFA was applied and to improve goodness fit some items were dropped from some of the factors. The final composition of factors after CFA was - responsiveness & assurance (2 items), reliability (2 items), empathy (2 items) and tangibles (2 items). Therefore the final measure of service quality had eight items converged two items on each factor.

### CFA Results

Table 4: CFA Results

	X <sup>2</sup>	DF	P- Value	CIMN/ DF	GFI	RMSEA	NFI	CFI	AGFI	TLI
<b>Criteria</b>	-	-	>0.05	1<CMIN/DF<3	≥0.90	<0.05	≥0.90	≥0.90	≥0.90	≥0.90
<b>Obtained Value</b>	16.567	14	0.280	1.183	0.987	0.025	0.986	0.998	0.966	0.996
X <sup>2</sup>	Chi- Square			DF- Degrees of Freedom						
GFI	Goodness of Fit Index			RMSEA- Root Mean Square Error of Approximation						
NFI	Normated Fit Index			CFI- Comparative Fit Index						
AGFI	Adjusted Fit Index			TLI- Tucker – Lewis Index						

The results revealed that value of chi square (16.567, DF. = 14) with p- value 0.280 indicated that model was absolute fit to the data. Other fit indices, viz. GFI, NFI, CFI, AGFI, TLI and badness of fit indices such as RMSEA, it can be seen from the table 4 above that the values of various fit indices and RAMSEA are as per the specified criteria these parameters clearly indicate that this model fits to this data and there is no further requirement to refine the model.

### Convergent Validity:

Table 5: Convergent validity

Factor Name	Items Converged	Item Loading	AVE	Construct Reliability
Responsiveness & Assurance	17. Adequate support	0.755	0.546	0.706
	11. Replies promptly	0.723		
Reliability	18. Individual attention	0.797	0.566	0.722
	16. Polite	0.706		
Empathy	10. Willing to help customers	0.743	0.543	0.703
	12. Special Care	0.731		

Tangibles	4. Appearance	0.790	0.600	0.750
	6. Certain time	0.760		

Convergent Validity refers to the degree of agreement in two or more measures of the same construct (Carmines and Zeller, 1979). Convergent Validity is achieved, if the Average Variance Extracted Value grater then 0.5 (Fornell and Bookstein 1982), Item Loading Value of each construct grater then 0.5 and construct reliability value grater then 0.7. From the above table convergent validity was achieved for service quality.

**Discriminant validity:**

Table 6: Discriminant validity

	<b>Responsiveness &amp; Assurance</b>	<b>Reliability</b>	<b>Empathy</b>	<b>Tangibles</b>
<b>Responsiveness &amp; Assurance</b>	0.546377	0.163216	0.244036	0.2677289
<b>Reliability</b>	0.163216	0.5668225	0.3403212	0.361201
<b>Empathy</b>	0.244036	0.3403212	0.543205	0.2704
<b>Tangibles</b>	0.2677289	0.361201	0.2704	0.60085

Discriminate validity is the degree to which any single construct is different from the other construct in the model (Carmines and Zeller, 1979). Discriminate validity was assessed by the test provided by Fornell and Bookstein (1982) in which the pair wise square of inter constructed correlations between factors obtained were compared with the Average Variance Extracted of each factor. In addition discriminate validity is achieved if the diagonal elements values are higher than the off diagonal values in the corresponding rows and columns. From the above table diagonal elements are having higher value then the off diagonal values therefore service quality possesses discriminate validity.

**CFA of Consumer Satisfaction standardized estimates**

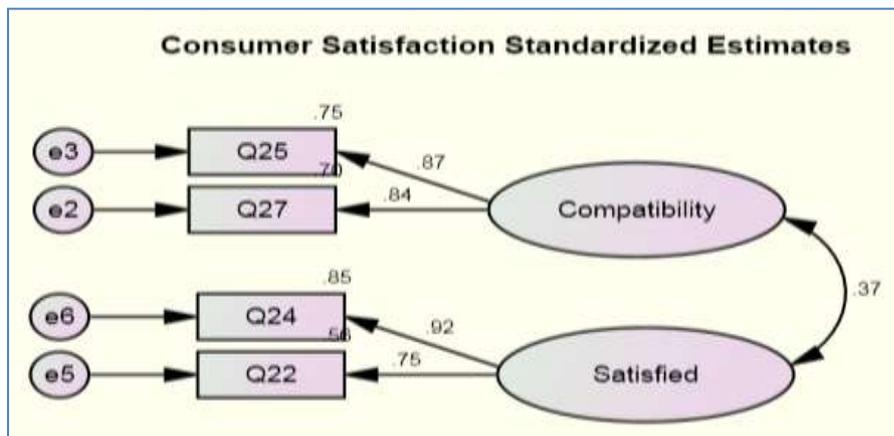


Figure 2: CFA of Consumer Satisfaction

After applying EFA on Consumer Satisfaction 2 factors of Consumer Satisfaction were identified Compatibility (3 items) and Satisfied (3 items). CFA was applied and to improve goodness fit some items were dropped from some of the factors. The final composition of factors after CFA was- Compatibility (2 items) and Satisfied (2 items). Therefore the final measure of Consumer Satisfaction had four items converged two items on each factor.

**CFA Results**

Table 7: CFA Results

	X <sup>2</sup>	DF	P- Value	CIMN/ DF	GFI	RMSEA	NFI	CFI	AGFI	TLI
<b>Criteria</b>	-	-	>0.05	1<CMIN/DF<3	≥0.90	<0.05	≥0.90	≥0.90	≥0.90	≥0.90
<b>Obtained Value</b>	2.942	1	0.086	2.942	0.995	0.08	0.994	0.996	0.951	0.974
<b>X<sup>2</sup></b>	Chi- Square			DF- Degrees of Freedom						
<b>GFI</b>	Goodness of Fit Index			RMSEA- Root Mean Square Error of Approximation						
<b>NFI</b>	Normated Fit Index			CFI- Comparative Fit Index						
<b>AGFI</b>	Adjusted Fit Index			TLI- Tucker – Lewis Index						

The results revealed that value of chi square (2.942, DF. = 1) with p- value 0.086 indicated that model was absolute fit to the data. Other fit indices, viz. GFI, NFI, CFI, AGFI, TLI and badness of fit indices such as RMSEA, it can be seen from the table 4 above that the values of various fit indices and RAMSEA are as per the specified

criteria these parameters clearly indicate that this model fits to this data and there is no further requirement to refine the model.

### Convergent Validity

Table 8: Convergent validity

Factor Name	Items Converged	Item Loading	AVE	Construct Reliability
Compatibility	25. Trust	0.920	0.779	0.875
	27. Understands	0.844		
Satisfied	24. Satisfied	0.971	0.815	0.898
	22. Satisfied bank's bonus programme	0.830		

Convergent Validity refers to the degree of agreement in two or more measures of the same construct (Carmines and Zeller, 1979). Convergent Validity is achieved, if the Average Variance Extracted Value grater then 0.5 (Fornell and Bookstein 1982), Item Loading Value of each construct grater then 0.5 and construct reliability value grater then 0.7. From the above table convergent validity was achieved for consumer satisfaction.

### Discriminant validity:

Table 9: Discriminant validity

	Compatibility	Satisfied
Compatibility	0.779	0.13838
Satisfied	0.13838	0.815

Discriminate validity is the degree to which any single construct is different from the other construct in the model (Carmines and Zeller, 1979). Discriminate validity was assessed by the test provided by Fornell and Bookstein (1982) in which the pair wise square of inter constructed correlations between factors obtained were compared with the Average Variance Extracted of each factor. In addition discriminate validity is achieved if the diagonal elements values are higher than the off diagonal values in the corresponding rows and columns. From the above table diagonal elements are having higher value then the off diagonal values therefore consumer satisfaction possesses discriminate validity.

### CFA of Consumer Commitment standardized estimates

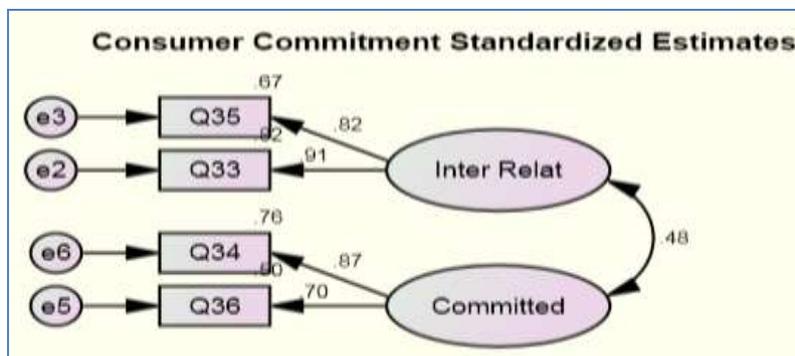


Figure 3: CFA of Consumer Commitment

After applying EFA on Consumer Commitment 2 factors of Consumer Commitment were identified Interpersonal relationship (3 items) and committed (3 items). CFA was applied and to improve goodness fit some items were dropped from some of the factors. The final composition of factors after CFA was - Interpersonal relationship (2 items) and committed (2 items). Therefore the final measure of consumer commitment had four items converged two items on each factor.

### CFA Results

Table 10: CFA Results

Criteria	X <sup>2</sup>	DF	P- Value	CIMN/ DF	GFI	RMSEA	NFI	CFI	AGFI	TLI
Obtained Value	0.913	1	0.339	0.913	0.998	0.000	0.998	1.00	0.985	1.00
X <sup>2</sup>	Chi- Square			DF- Degrees of Freedom						
GFI	Goodness of Fit Index			RMSEA- Root Mean Square Error of Approximation						

<b>NFI</b>	Normated Fit Index	CFI- Comparative Fit Index
<b>AGFI</b>	Adjusted Fit Index	TLI- Tucker – Lewis Index

The results revealed that value of chi square (0.913, DF. = 1) with p- value 0.339 indicated that model was absolute fit to the data. Other fit indices, viz. GFI, NFI, CFI, AGFI, TLI and badness of fit indices such as RMSEA, it can be seen from the table 4 above that the values of various fit indices and RAMSEA are as per the specified criteria these parameters clearly indicate that this model fits to this data and there is no further requirement to refine the model.

### Convergent Validity

Table 11: Convergent validity

Factor Name	Items Converged	Item Loading	AVE	Construct Reliability
Interpersonal relationship	35. Emotional needs	0.889	0.742	0.852
	33. Customization service	0.834		
Committed	34. Personal preference	0.876	0.739	0.850
	36. Frequently visited	0.844		

Convergent Validity refers to the degree of agreement in two or more measures of the same construct (Carmines and Zeller, 1979). Convergent Validity is achieved, if the Average Variance Extracted Value graters then 0.5 (Fornell and Bookstein 1982), Item Loading Value of each construct grater then 0.5 and construct reliability value grater then 0.7. From the above table convergent validity was achieved for consumer commitment.

### Discriminant validity

Table 12: Discriminant validity

	Interpersonal relationship	Committed
Interpersonal relationship	0.742	0.234256
Committed	0.234256	0.739

Discriminate validity is the degree to which any single construct is different from the other construct in the model (Carmines and Zeller, 1979). Discriminate validity was assessed by the test provided by Fornell and Bookstein (1982) in which the pair wise square of inter constructed correlations between factors obtained were compared with the Average Variance Extracted of each factor. In addition discriminate validity is achieved if the diagonal elements values are higher than the off diagonal values in the corresponding rows and columns. From the above table diagonal elements are having higher value then the off diagonal values therefore consumer commitment possesses discriminate validity.

### SEM:

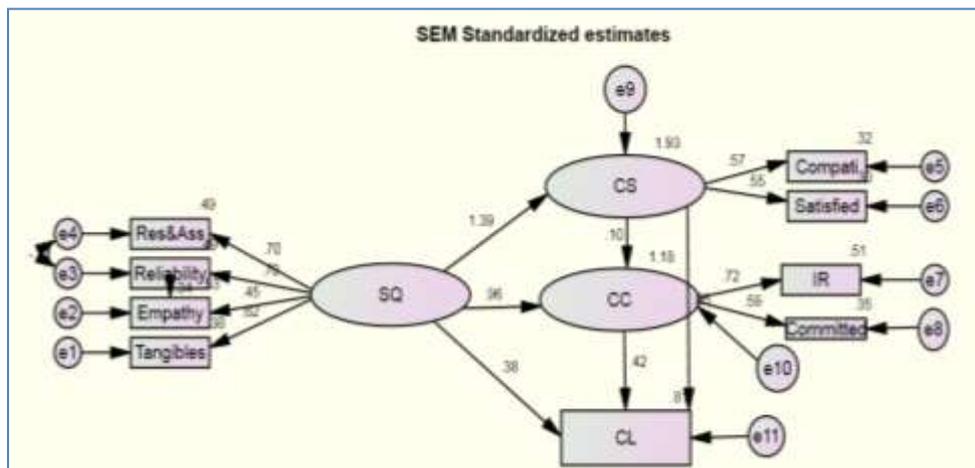


Figure 4: SEM model showing relationship between variable

### SEM Results

Table 10: SEM Results

	$\chi^2$	DF	P- Value	CIMN/ DF	GFI	RMSEA	NFI	CFI	AGFI	TLI
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Criteria	-	-	>0.05	1<CMIN/DF<3	≥0.90	<0.05	≥0.90	≥0.90	≥0.90	≥0.90
Obtained Value	62.5	21	0.321	2.976	0.953	0.072	0.960	0.972	0.910	0.952
X <sup>2</sup>	Chi- Square			DF- Degrees of Freedom						
GFI	Goodness of Fit Index			RMSEA- Root Mean Square Error of Approximation						
NFI	Normated Fit Index			CFI- Comparative Fit Index						
AGFI	Adjusted Fit Index			TLI- Tucker – Lewis Index						

The results revealed that value of chi square (24.6, DF. = 16) with p- value 0.321 indicated that model was absolute fit to the data. Other fit indices, viz. GFI, NFI, CFI, AGFI, TLI and badness of fit indices such as RMSEA, it can be seen from the table 4 above that the values of various fit indices and RAMSEA are as per the specified criteria these parameters clearly indicate that this model fits to this data and there is no further requirement to refine the model.

Regression Weights: (Group number 1- Default model)

			Estimate	S.E.	C.R.	P	Label
CS	<---	SQ	1.386	.131	10.605	***	par_8
CC	<---	SQ	1.214	.127	9.547	***	par_9
CC	<---	CS	.122	.076	1.604	.109	par_11
CL	<---	SQ	1.137	.162	7.019	***	par_10
CL	<---	CC	.661	.312	2.122	.034	Par_12
CL	<---	CS	.183	.099	1.851	.064	par_12

The estimate value between service quality as independent variable and consumer satisfaction as dependent variable is 1.386 with a p-value that is significant at 1% level of significance so there is a significant positive cause and effect relationship between service quality and consumer satisfaction that means if service quality increases by 1 unit consumer satisfaction will increase by 1.386 unit that means higher the service quality higher the consumer satisfaction. The estimate value between service quality as independent variable and consumer commitment as dependent variable is 1.214 with a p-value that is significant at 1% level of significance so there is a significant positive cause and effect relationship between service quality and consumer commitment that means if service quality increases by 1 unit consumer commitment will increase by 1.214 unit that means higher the service quality higher the consumer commitment. The estimate value between consumer satisfaction as independent variable and consumer commitment as dependent variable is 0.122 significant at 0.109 level of significance so there is an insignificant positive cause and effect relationship between consumer satisfaction and consumer commitment that means if consumer satisfaction increases by 1 unit consumer commitment will increase only by 0.122 unit that means consumer satisfaction effect consumer commitment. The estimate value between service quality as independent variable and consumer loyalty as dependent variable is 1.137 with a p-value that is significant at 1% level of significance so there is a significant positive cause and effect relationship between service quality and consumer loyalty that means if service quality increases by 1 unit consumer loyalty will increase by 1.137 unit that means higher the service quality higher the consumer loyalty. The estimate value between consumer commitment as independent variable and consumer loyalty as dependent variable is 0.661 significant at 0.034 level of significance so there is an insignificant positive cause and effect relationship between consumer satisfaction and consumer commitment that means if consumer satisfaction increases by 1 unit consumer commitment will increase only by 0.661 unit that means consumer satisfaction effect the consumer commitment very little. The estimate value between consumer satisfaction as independent variable and consumer loyalty as dependent variable is 0.183 significant at 0.064 level of significance so there is an insignificant cause and effect relationship between consumer satisfaction and consumer loyalty that means if consumer satisfaction increases by 1 unit consumer loyalty will increase by 0.064 unit that means the consumer satisfaction has no effect on consumer loyalty.

## SUGGESTION AND IMPLICATIONS

### SUGGESTIONS

- The scope of the study can be widened by increasing the sample size for getting appropriate results.
- It will suggest that service quality has more effect on consumer loyalty as compare to consumer commitment and consumer satisfaction.
- The study has been done in Gwalior region only so, it is suggested that if this study can be replicated by using demographics variables and geographic variables adequate results can be obtained.

- The research will suggest that in commercial banks service quality play vital role to increase the customer satisfaction that can increase commitment in the consumers and commitment can increase loyalty among the consumers.

### **Implications**

- The study is intended to be useful contribution to understand the relationship of service quality with consumer satisfaction, consumer commitment and consumer loyalty, relationship of consumer satisfaction with consumer commitment, relationship with consumer commitment and consumer loyalty and relationship of consumer satisfaction and consumer loyalty.
- It is also intended to be useful contribution for further research because it provide link between theory and practice.
- It will also contribute to the banks that are direct link to the consumers.
- It can prove to be useful for the banking consumers who have their accounts in the commercial banks and belief in service quality.

### **CONCLUSION**

The empirical study is based on a survey of 300 banking customers belonging in different location of the Gwalior region the variables are the service quality, consumer satisfaction, consumer commitment and the consumer loyalty. The objectives of the study were to identify the effect of service quality on consumer satisfaction, consumer commitment and consumer loyalty, effect of consumer satisfaction on consumer commitment, effect of consumer commitment on consumer loyalty and consumer satisfaction on consumer loyalty. The result of SEM test reveals that there is significant and positive cause and effect relationship between service quality, consumer satisfaction, consumer commitment, and consumer loyalty, insignificant positive cause and effect relationship between consumer satisfaction and consumer commitment; insignificant positive cause and effect relationship between consumer satisfaction and consumer loyalty and insignificant positive cause and effect relationship between consumer commitment and consumer loyalty. The conclusion drawn from this research lead to recommendations for a series of action which if adopted would help to establish the service quality in banks in Gwalior region which would improve the satisfaction of consumer, commitment and loyalty. The analysis reveals that the service quality has more effect on consumer satisfaction then on consumer commitment and then on consumer loyalty; consumer satisfaction does not effecting consumer commitment and consumer loyalty in this research and consumer commitment does effecting consumer loyalty in this research.

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