



Effect of Service Quality & Customer Satisfaction on Customer Loyalty of Cellular Service Providers in Ahmedabad

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ABSTRACT

As the current market place becomes more competitive, consumers tend to become more and more demanding. Mobile telecommunication service sector in India has been experiencing the highest growth rate in terms of subscribers and revenues. With the increasing competition in cellular services, the consumers are demanding more. The main condition for protecting the subscriber base is to win the customer loyalty. This study attempts to examine the effect of service quality and customer satisfaction on customer loyalty in mobile telecommunication services. As many as 200 users of GSM services were surveyed. The data was analysed by regression analysis. The study shows that the service quality and customer satisfaction have positive association with customer loyalty. However, the customer satisfaction was found to be best predictor of customer loyalty.

KEYWORDS

(a) Service Quality:
A form of attitude, but not an equivalent to satisfaction that results from the comparison of expectations with performance.

(b) Customer Satisfaction:
It is an output which results from the consumer's pre purchase comparison of expected performance with perceived actual performance and incurred cost.

(c) Customer Loyalty:
It refers to a favorable attitude towards a particular brand in addition to purchasing it repeatedly.

Introduction:
The rapid growth of service industry has changed the conditions of business. As the market growth slows down or as the markets become more competitive, firms are more likely to attempt to maintain their market share by focusing in retaining the current customers. Customers retention has been advocated as an easier and more reliable source of superior performance (Reichhel&Sasser, 1990). In the past few years, the mobile telecommunication market has witnessed a substantial growth and a rapid change globally as well as domestically. The Indian telecom sector has currently witnessed a resurgent growth rate of 45% , which is the highest in world. The wireless industry made a healthy contribution in the growth of telecom sector (TRAI Annual Report). A total of 66.34 millions subscribers were added, registering the growth rate of around 83.17% (TRAI Annual Report). Achieving and maintaining a commanding position in such a growing market place is becoming increasingly difficult because of more competition on the one hand and more demanding customers on the others.

Under such a situation, protecting the existing customer base and retaining the existing customers loyalty appear to be the crucial competitive advantage. Customer loyalty provides the foundation of a company's sustained competitive edge and that developing and increasing, customer loyalty is a crucial factor in companies' growth and performance (Lee & Cunningham, 2001). Customer loyalty can be gained by increasing the customer satisfaction through raising the offered service quality (Forenell, 1996 & Robertson, 2001). Aydin noted that service quality is the most important factor for determining the customer loyalty. The relationship between the service quality and customer preference loyalty have been studied by various researchers. Perceived service quality is often viewed as a pre requisite for loyalty and frequently, loyalty is included in model as an outcome variable(Cronin & Taylor, 1992 and

Boulding, 1993). Many satisfaction positively affected loyalty(-Fornell, 1992 and Gerpott, 2001 and Sharma, 2003) concluded that the relationship between customer satisfaction and customer loyalty is affected by many factors, including type of the industry, switching costs and the differentiation level of products in a category. The present study has been carried out with an objective to examine the role of service quality and customer satisfaction in obtaining customers loyalty.

Theoretical Background:
(a) Customer Satisfaction:
Oliver(1980) defines that Customer satisfaction is a summary psychological state when the emotions surrounding disconfirmed expectations are coupled with the consumer's prior feelings about consumption experience. However, Parsuraman(1994) have put forward the simple and clear definition for satisfaction. They suggest that satisfaction is influenced by service quality, product quality, price. They researched satisfaction on a transaction level, implying that the overall satisfaction is a function of transactions. Yi(1991) opines that the customer satisfaction operates in two different ways transactions specific and general overall. The transaction specific concept concerns customer satisfaction as the assessment made after a specific purchase. Customer satisfaction is an important tool that can increase profits by preventing customer from defecting. BeiChio(2001) concluded that customer satisfaction has got a positive effect on customer retentions thereby implying that the customer satisfaction has a positive effect on loyalty.

(b) Service Quality:
Service quality has been described as a form of attitude, but not an equivalent to satisfaction that results from the comparison of expectations with performance. Perception of service quality could occur at multiple levels in an organizations for

example, with the core service, physical environment interaction with the service providers etc. customer expectations and perceived performance of services have been found to be the main antecedents of perceived service quality. Parsuraman (1988) developed a 22- item scale called "SERVQUAL" which measured service quality based on five dimensions viz. tangibles, reliability, responsiveness, assurance and empathy. SERVQUAL scale is most reliable and widely used in researchers. Van-der-Wal(2002) used SERVQUAL to investigate service quality in mobile telecommunications outlet in South Africa. They concluded that the instrument was reliable and could be used to access service quality in telecommunications industry. Sheth(2008) in their study strived to develop a valid and reliable instrument to measure customer perceived service quality for cellular mobile telephony in the Indian market. They used five dimensions of SERVQUAL scale and two additional dimensions namely convenience and customer perceived network quality in cellular services.

Rahman(2006) also used SERVQUAL model for measuring the service quality at cellular retail outlets in the Indian environment.

(c) Customer Loyalty:

Customer loyalty refers to a favourable attitude towards a particular brand in addition to purchasing it repeatedly a relationship between relative attitude towards an entity and repeat patronage behaviour a situation when repeat purchase behaviour is accompanied by a psychological bond and repeat purchase intentions and behaviour. Customer loyalty sometimes has been operationalized as a behavioural measure and at other times as an attitude. Behavioural measures include probability of purchase(Farley,1964), purchase frequency(Brody & Cunningham 1968), repeat purchase behaviour(Brown, 1952), purchase sequence and, multiple aspects of purchase behaviour. Attitudinal approaches are focused mainly on brand recommendations(Boulding 1993), resistance to superior products(Narayandas, 1996), willingness to pay a price premium (Zeithaml, 1996) and repurchase intention (Cronin & Taylor, 1992).

Hypothesis of the Study:

On the basis of objective of the study and literature review, the following hypothesis has been formulated:

H_1 : The higher the score on customer perceived service quality, the higher is the customer loyalty.

H_2 : The higher the level of customer satisfaction, the higher is the customer loyalty.

Research Methodology:

(a) Measurement of variables:

For the validation of research hypothesis four measures were derived from the review of literature and multi item scale employed. In order to measure the customer perceived service quality the study adopted five dimension SERVQUAL model and four additional dimensions as network quality, pricing structure, convenience, value added service. Each of the items was evaluated on a five point Likert scale, ranging from one: 'strongly disagree' to five: 'strongly agree'. Customer satisfaction scale includes two items namely overall satisfaction and ore purchase expectations of customers. The questionnaire items for customer loyalty scale for the study will adopt from the scale developed by Narayandas(1996). The operational measures of loyalty are repurchase intentions, resistance to switching to competitor's product or service that is superior to the preferred vendor and willingness to recommend the preferred vendor's product or service to friends and associates. Table 1 shows, the description of measures used in the present study.

(b) Data Collection & Sample:

Data was obtained from the customers of cellular services in Ahmedabad city with the help of questionnaire. Convenience sampling method was adopted to collect the data from

the customers. The prepaid subscribers of GSM services were included in the present study. A total of 200 questionnaires were filled up. The demographic characteristics of respondents for this study are presented in Table 1.

(c) Data Analysis and Findings:

Data collected has been analysed using different statistical tools. SPSS 20 was used for assessment of reliability of dimensions and testing the hypothesis. For the purpose of analysis, Likert scale, which is actually an ordinal scale, is being approximated to a metric scale (i.e. interval scale in this case) and hence multiple regression and bivariate correlations are being used to explain the data.

(d) Reliability Analysis:

The reliability of items was assessed by computing the coefficient of Cronbach alpha. Cronbach alpha measures the internal consistency of the items. For the purpose of this research, alpha coefficient has been computed separately to assess the reliability of the scales adopted in the study. Results of reliability analysis are shown in Table 2. If coefficient alpha is above 0.6, it is considered to be reliable. All alpha coefficients range from 0.75 to 0.90, thereby, indicating good consistency among the items within each dimension and scale.

(e) Hypothesis Testing:

Correlation and multiple regression analysis have been done to test the hypothesis of the study. Prior to applying the regression analysis, the assumptions for the regression analysis were tested. To test the normality of residuals, the Kolmogorov-Smirnov test has been used. The K-S test results in Table 3 provides the evidence that the residual is normally distributed and the regression analysis can be executed. Multicollinearity diagnosis was done using Variance Inflation Factor (VIF) and Tolerance Value (TV). VIF is the coefficient of the multiple dimension of the regression produced by regressing the variable X_i against the other X variables. If any VIF exceeded 10, the correspondent variable should be considered to be deleted or otherwise used as an alternative method instead of Ordinary Least Square. The tolerance of an independent variable is an additional method to measure the effect of multicollinearity in a data set. The value of the tolerance of variable has a range from zero to one. If the tolerance of the variable value is close to one, it indicates the independence; and if it is close to zero then the variables are multicollinear. VIF ranged between 1.31 to 1.72 values which are well below the cut off values of 10. On the other hand, the tolerance values are above 0.7. These factors indicated that there is no evidence of multicollinearity problem in the regression model. The values of the VIF and Tolerance value for regression model are presented in Table 4. In order to check the correlation between residuals, Durbin-Watson test statistic was computed. The test statistic can vary between 0 and 4. Field (2005) suggests that the value less than 1 or greater than 3 are cause for concern; however, values closer to 2 or value of 2 means that the residuals are uncorrelated. The result of Durbin-Watson test has been shown in Table 5. Value of D-W test close to 2 shows that the residuals are independent i.e. uncorrelated, thereby, fulfilling the assumption for applying the regression model. In addition of D-W test, the results of the regression for relationship between the service quality and customer satisfaction on customer loyalty showed the adjusted R-square equal to 0.78 (Table 5) indicating high proportion of explained variances and this adjusted R-square was found to be statistically significant. Standardized Coefficients of Beta and t-value of multiple regression analysis in Table 6 shows that the customer satisfaction best predictor and is good explanatory variable of the customer loyalty followed by service quality. Pearson correlation was computed to test the formulated hypothesis. Table 7 shows that the correlation for all the scales is highly significant at 99% level of confidence. The result shows that there is the strongest association between the customer loyalty and customer satisfaction. Significant positive correlation reveals that the higher level of service quality and customer satisfaction lead to higher customer loyalty. Thus, the correlation and regression analysis support the H_1 and H_2 .

(d) Conclusions:

The main focus of this study was to test the effect of service quality and customer satisfaction on customer loyalty in cellular services. The results of the study found a positive relationship between service quality and customer loyalty, customer satisfaction and customer loyalty. It has been revealed that the customer satisfaction is the most significant predictor of customer loyalty. Service quality also affect the customer intention to stay with particular service provider. This paper furnished implications for mobile service providers in order to increase customer loyalty. Service providers should maximize service quality and customer satisfaction in order to enhance customer loyalty. Telecommunication companies must focus on customer oriented services to heighten customer satisfaction. Service providers must concentrate their efforts on improving network quality, pricing and value added services.

Table 1: Demographic Profile of the Respondents	
Respondent's Characteristics	Percentage of Respondents (%)
Age Group (in years)	
1. 20 – 30	57
2. 30 – 40	26
3. 40 – 50	15
4. Above 50	2
Education Status	
1. Undergraduate	10
2. Graduate	40
3. Post Graduate	35
4. Others	15
Occupation	
1. Student	30
2. Salaried	40
3. Business	9
4. Professional	14
5. House Hold	7
Monthly Expenditure on Mobile Services (in Rs.)	
1. Less than 300	19
2. 301 - 500	13
3. 501 - 1000	37
4. Above 1000	31

Table 2: Cronbach Alpha Coefficient	
Name of the scale	Cronbach Alpha
Customer Service Quality	0.82
1. Reliability	0.75
2. Responsiveness	0.76
3. Assurance	0.80
4. Tangibles	0.78
5. Empathy	0.79
6. Network Quality	0.86
7. Pricing Structure	0.77
8. Value Added Services	0.79
9. Convenience	0.80
Customer Satisfaction	0.85
Customer Loyalty	0.82

Table 3: One Sample Kolmogorov – Smirnov Test				
Parameters		Customer Satisfaction	Customer Service Quality	Customer Loyalty
N		200	200	200
Normal Parameters (a, b)	Mean	3.2896	4.6532	3.3231
	Std. Deviation	0.2684	1.0053	0.7169
Most Extreme Differences	Absolutes	0.216	0.258	0.147
	Positive	0.139	0.219	0.174
	Negative	-0.216	-0.258	-0.147
Kolmogorov – Smirnov Z		2.399	3.641	2.313
Asymp. Sig. (two – tailed test)		0.000	0.000	0.001

Table 4: Collinearity Statistics		
Variables	Tolerance Value (TV)	Variance Inflation Factor (VIF)
Customer Service Quality	0.715	1.312
Customer Satisfaction	0.795	1.711

Table 5: Regression Model Summary					
Model	R	R – Square	Adjusted R – Square	Std. Error of the Estimate	Durbin – Watson
1	0.8932	0.7978	0.78	0.4132	1.982

Table 6: Regression Analysis : Customer Loyalty Coefficients					
Variable	Unstandardized Coefficients		Standardized Coefficients	T - Value	Significant Values
	Beta	Std. Error	Beta		
Constant	0.526	0.188	-	2.804	0.006
Customer Satisfaction	0.393	0.027	0.693	14.351	0.000
Customer Service Quality	0.266	0.053	0.310	4.980	0.000

Table 7: Correlation Between Service Quality, Customer Satisfaction & Customer Loyalty		
Correlation	Service Quality	Customer Satisfaction
Customer Loyalty	0.683	0.653

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