Determinants of Customer Satisfaction and Their Impact in Telecommunication Industry in India

Sukanta Saha, Yogesh C. Joshi

Abstract: *Telecommunication services market in India is a hot bed of competition.With the advent of new Telecommunication operator ,Reliance JIO, the competition had further been cut throat.In such a situation,retaining an existing customer is more significant then acquisition of a new one. Hence building trust and loyalty among telecommunication service users is quite pivotal as it act as a bridge, which can in the long run help in retaining a customer.The study analyzes the effect of trust,loyalty,service quality,perception and switching cost on customer satisfaction among mobile users of Gujarat.The research study centers around the mobile users of Gujarat state and its various zones.Various analysis like factor analysis,Principal component analysis and multiple regression analysis have been utilized,which helped to determine the factors of customer satisfaction and the relationships between service quality-customer satisfaction, loyalty-customer satisfaction, perception-customer satisfaction, trust-customer satisfaction and between switching cost and customer satisfaction among mobile customers of Gujarat.*

.Keywords: Trust, Loyalty, Service Quality, Perception, Switching Cost, Customer Satisfaction

I . INTRODUCTION

Telecom services are one of the key elements of modern day life. Its evolution from a luxury product to a basic amenity had all been contributed due to policy evolution and step by step change in mentality of the policy makers in India. Its need is now felt in every part of our society. The carrier of all government projects in India in some way or the other is through telecom services e.g. Digital India, a pioneer project of Government of India, is completely dependent on Telecom services. The touch of digitization is felt in every aspects of life whether it is banking, shopping, communicating and thus we are interconnected with telecommunication services day in and day out.Continuous changes in telecommunication related policies and entry of new telecom operator like Reliance JIO in Indian Telecom market has ushered in a fierce cut throat competition. The telecom market in India is now truly more customer focused, where customers are the king. Hence customer satisfaction is the focal point for all telecom operators. Identification of most important parameters related to customer satisfaction is the most important aspect these days. The study is thus quite important in this regard. Various mobile users from across length and breath of Gujarat State have been chosen as sample respondents for identifying various parameters of customer satisfaction like perception, trust, loyalty, service quality and switching cost. The data collected from sample respondents were analyzed using factor analysis to determine most important and relevant parameters. Further using regression analysis the impact of these parameters on customer satisfaction and their association on customer satisfaction were carried out for analysis. Gujarat is one of the major states of India which has a significant wireless customer base as per TRAI report compared to that of India.

Table 1 Wireless Mobile Customer details (Upto Mar-19)

Particulars	Gujarat	All India
Total Wireless customer base in millions	69.30	1161.81
Rural Wireless Customer base in millions	26.55	511.32
Urban Wireless Customer base in millions	42.75	650.49
Rural Wireless tele density (in Per cent)	70.63	57.13
Urban Wireless tele density (in Per cent)	151.61	155.49

Source: Performance Indicator Reports TRAI, 2019

Considering such significant presence of wireless mobile customer base, the analysis and results on wireless mobile customers of the state of Gujarat provides us a holistic picture of India as a whole. A brief review of literature relevant to objectives is presented hereunder.

II. LITERATURE REVIEW

Customer satisfaction is a key term which is regularly used in marketing.It is a key performance indicator of a business and is ofter included in the balanced business score card.In a competitive market scenario, it acts as a key differntiator and key element in designing any strategy.

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Trust

Trust is a significant emotion of human beings, which requires cooperation and interdependence and has fundamental influences in all social beings (Zaltman, G. & Moorman, C., 1988). All social relationships would fail to function properly without trust (Patrick, 2002). It is a characteristic that is based on expectation of achieving the desired result (Creed W. D. & Miles R. E., 1996).

Patrick (2002) opined that trust is a process, feelings or emotions when customers rely upon someone to act in their best interest.It is a belief that provides impetus when consumers perceive uncertainty or risk (Wang, Sharon., 2004). Trust is reflected on the feelings or beliefs of the customers without any change in behavior or attitude. Trust thus is defined as expectancy of reliance held by an individual (Rotter, 1967). **Loyalty**

Customer loyalty is an unsaid commitment to repurchase any product or services in future, inspite of varied situation and efforts made to generate switching behaviour (Oliver, 1997).Customer loyalty is measured by four indications like commitment, repurchase, more purchase and word of mouth publicity.Loyalty is a positive tendency for any company (Vinhas & Faridah, 2012). It is attitude rather than behaviour. However, lot of studies has conceptualized loyalty as a behavioral intention or behavioral response. Bridson *et al.*(2008) and Vesel and Zabkar (2009) have found a relationship although indirect between loyalty program and customer loyalty.However,studies by Virginie(2008)have found that quality of loyalty programs and company's image can some times have detrimental effect on customer behaviour .Some customers like a certain brand over another, which helps to ensure a sustainable competitive advantage. Researchers sometimes use price as a parameter to assess its effect on customer behaviors and brand loyalty. Brand loyalty sometimes is described as behavior or attitude that influences the buying decisions and thus determines the optimal pricing. In most cases, the loyalty for a brand is a trade off between maximum loyal behavior or the maximum price differential that consumers pay before switching.

Service Quality

Since Parasuraman et al. (1988) proposed service quality model SERVQUAL with scale of 22 items,the model is used very frequently across various industries. The model enumerated that service quality can be quantified using functional quality dimensions such as reliability, tangibility, empathy, assurance and responsiveness. Gowan et al. (2001), Straughan and Cooper (2002) and Zhao et al. (2002) used SERVQUAL model for measureing and gauging service quality provided by different service providers. However, several researchers have disagreed on the use of SERVQUAL model for measureing service quality because of varied industrial characteristics.Components of service quality can also be known in depth from what Kotler and Keller, (2015) has written about them. Service quality frequently relies on SERVQUAL instrument to understand the service quality provided to the customers. The SERVQUAL scale was developed in the marketing context and this was supported by the Marketing Science Institute (Parasuraman et al., 1986). The five dimensions of service quality are reliability, responsiveness, tangible, assurance and empathy, which has specific service characteristics that link to the expectations of customers.Service quality has a close association with perceptions and expectations. Customers analyze service quality by drawing a comparison with what they expect. Thus, service quality is the difference between customer's expectations regarding quality of service and their perception on actual service. Thus, Service quality symbolizes a measure of how well the service delivered matched with customer expectations. Drucker (1991) defined service quality as what the customer gets in return of what they pay for rather than what the supplier provides them. Some literatures, service quality has been defined as the extent to which the needs or expectation of the customers are satisfied by the services(Lewis & Mitchell,1990; Dotchin & Oakland, 1994). For service industries service quality means providing a variety of products and services that a customer wants. However, these customer's preferences and choices varies between customers. These differences make it hard for the service providers to meet diverse demands. Thus, the knowledge of customer's preferences and their choices of products and services provided is one of the most significant characteristic for meeting service quality.

Perception

Philip Kotler (2008) has opined that satisfaction is one's feeling of pressure or disgust which results from a product's perceived results in relation to expectations. If the perceived expectations turn out to be almost same as expected, the customer is highly satisfied and that is how the brand loyalty of the customer towards the products is achieved.Perception is sometimes defined as the consciousness of a particular material present to sense(James Rowland Angell, 1996). Perception is influenced not only by the external stakeholders, but also by the individual and in particular by previous experiences, emotions, expectations, and intentions. These internal variables are analyzed when the stimuli are unclear, confusing and unpredictable. Perception is, indeed, a direct process by which individuals receive and interpret various signals and stimuli according to thinking process, cultural knowledge and experiences (Valentine and Gastéran, 2016).

Customer Satisfaction

Ningsih and Segoro (2014) defined satisfaction as an attitude and emotional response shown by the consumer after having purchased. It is an expression of being pleased with a product or a service. The definition given by Yap, Ramayah and Shahidan (2012) potrayed satisfaction as one's attitude towards a service provider. Wong and Sohal (2003) stated that fulfilling consumer expectations during a service period produces a higher repurchase probability for any company. Most of the studies have confirmed that contented clients have more chances to repurchase and positive communications toward an organization (Blodgett & Anderson, 2000; Maxham and Netemeyer, 2002). Customer satisfaction is of great importance for companies as it directly affects the intent to purchasing behaviour and positive publicity. Satisfaction reinforces positive attitudes towards the brand and increases the possibility of re-purchasing from the same brand (Pizam and Ellis, 1999).

Talks and advice from satisfied customers about the company or company's products or services further initiate the process of acquiring new customers (Çatı and Koçoğlu, 2008).Customer satisfaction of mobile users in Gujarat are dependent mainly on factors like Prompt service delivery and responsiveness of service provider, high speed internet services, Image of service providers, billing performance and customer support (Sukanta Saha & Yogesh C Joshi, 2019).High speed internet services especially 4G services has enabled an enormous growth of data services in India and is a significant contributor of customer satisfaction (Sukanta Saha & Yogesh C Joshi, 2018).

Switching Cost

Switching Cost is nothing but the factors which make any switching decision of customers more complicated and costly. Bruner et al. (2003) opined that the procedural cost of switching involves time and efforts, financial switching cost on the other hand involves the monetary cost, relational switching cost includes emotional or psychological imbalance caused due to identity loss and the break in any relationship .Those companies that want to win customers through competition can adopt various measures to reduce the costs of switching. Some mobile operators use the switching costs to attract and portin customers. Some firms tries to decrease the perceived switching costs for any new customers which inspires them to switch and increase the perceived switching cost for the old customers,which deters them from switching behaviour.Loyalties, Perception, Trust, Service Quality, Switching cost are some way or the other related to customer satisfaction in telecommunication sectors.

Relationship between service quality and customer satisfaction

Adeleke and Aminu have observed that service quality has a positive effect on customer satisfaction and loyalty. Ruyter, Wetzels, and Bloemer have opined that there is a positive relationship between service quality and repurchase intention and customer loyalty. Sabir et al., (2013) have stated that service quality has positive relations with customer loyalty. Zeithaml and Bitner (1996) argue that perceived service quality is a part of customer satisfaction. They accepted that the relationship between service quality and customer satisfaction is significant.Satisfaction was solely viewed as a wider perspective for service quality measurement.

Relationship between perception and Customer satisfaction

Many marketing researchers have opined that customer satisfaction is the direct result of positive perception. Cronin and Taylor (1992) assumed that better offers and service perception is a better measure to determine overall satisfaction than comparing expected quality and perceived quality.

Relationship between loyalty and customer satisfaction

Different researchers have established a positive relationship between customer satisfaction and customer loyalty.

Relation between Trust and Customer Satisfaction

Morgan, R. M. & S. D. Hunt found that trust increases loyalty to customers .According to Frazier, irrespective of no previous purchasing experience in a particular shopping mall, the higher the level of trust, the greater the chances of future purchases ,which leads to more satisfactionSingh, J. & D.

Sirdeshmukh have opined that Higher amount of trust leads to more favorable evaluation of the seller and more positive evaluation leads to more satisfaction.

Relation between switching cost and customer satisfaction

Switching cost plays a pivotal mediation role between customer satisfaction and loyalty. The presence of switching cost means that some loyal customers are actually dissatisfied because it prevents them to switch operator in future. When there is no switching cost, customer feels free to experiment. Normally it is found that with no switching cost, purchasing decisions are not restricted.

III. RESEARCH OBJECTIVE

The purpose of this research is to determine the factors of customer satisfaction among the mobile users of Gujarat.Further the research also tries to determine the relationship between service quality-customer satisfaction, loyalty-customer satisfaction, perception-customer satisfaction, trust-customer satisfaction and between switching cost and customer satisfaction among mobile customers of Gujarat. Based on the objectives and discussion, following alternative hypothesis are formulated

H1a: There is some positive relationship between service quality and customer satisfaction within Telecom service providers in Gujarat.

H2a: There is some positive relationship between perception and Customer satisfaction within Telecom service providers in Gujarat

H3a: There is some positive relationship between loyalty and customer satisfaction within Telecom service providers in Gujarat

H4a: There is some positive relationship between trust and customer satisfaction within Telecom service providers in Gujarat.

H5a: There is some positive relationship between switching and customer satisfaction within Telecom service providers in Gujarat.

Conceptual Model

As the research objective is to determine the factors of customer satisfaction and determining the relationships between service quality-customer satisfaction, loyalty-customer satisfaction, perception-customer satisfaction, trust-customer satisfaction and switching cost and customer satisfaction among mobile customers of Gujarat, the following conceptual model is formulated. Studies carried out in various research work covered in the literature review have suggested that these factors are some way or the other are related to customer satisfaction.
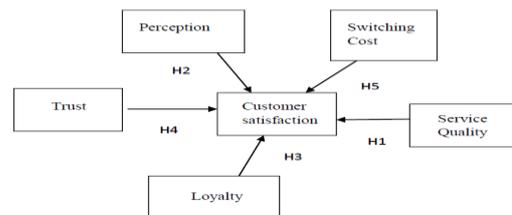
Figure 1 Conceptual model of relationship between Customer satisfaction and various factors

IV. RESEARCH METHODOLOGY

To pursue objectives structured questionnaires were formulated and responses were collected on factors of customer satisfaction in a 5 point Likert Scale from 800 sample respondents from across Gujarat.5 stands for completely agree,4 stands for agree,3 can't say,2 stands for disagree and 1 stands for strongly disagree.Respondents were choosen from 4 different zones of Gujarat –North, South, Central and Saurastra. The data thus collected were analysed using statistical tools like factor analysis and regression analysis to reach to the desired objectives.Under factor analysis, principal component analysis was used to control the number of factors and determining the most significant factors and regression analysis was used to determine the strength among the factors of customers satisfaction and also prove the hypothesis formulated.

V. RESULTS AND DISCUSSION

Demographic factors

The various demographic factors like age, gender, marital status, income, profession, locality and qualification of the respondents are demonstrated.

Table 2 Demographic factors of the respondents

Factors	Particluars	Frequency	Percentage
Gender	Male	469	58.7
	Female	331	41.3
Area	Urban	369	46.1
	Semi urban	107	13.1
	Rural	324	40.8
Age	Less than equal to 12 years	24	3.2
	Between 13-25 years	213	26.6
	Between 26 to 40 years	250	31.2
	Between 41 to 60 years	231	29.1
	Greater than 60 years	82	10.1
Marital Status	Married	476	59.7
	Not married	324	40.3
Profession	In business	151	19.1
	In government Job	125	15.6
	In Private Job	195	24.4
	Retired	25	3.4
	House wife	102	12.8
	Student	102	12.8
	In Farming	76	9.7
	Without Job	24	2.8
Annual Income	Less than Rs.1 lakh	132	16.5
	Rs.1-3 lakh	125	15.6
	Rs.3-5 lakh	215	27.1
	Rs.5-10 lakh	164	20.5
	Above Rs.10 lakh	71	9.1
	Not earning	93	11.4
Qualification	Post Graduate	136	16.9
	Graduate	398	49.5
	Diploma/ITI	102	12.7
	Under graduate	168	20.9

Source: Primary data

The respondents were chosen from 4 different zones of Gujarat.These are north Zone, South Zone, Central Zone and Saurastra.

Table 3 Zone wise distribution of respondents

SR No	Zone	Count	Per cent
1	Central Zone	351	43.9
2	Saurastra	202	25.3
3	North Zone	123	15.4
4	South Zone	124	15.5
	Total	800	100.0

Descriptive Statistics

To identify the relevant factors of customer satisfaction, factor analysis was conducted. The first output from factor analysis is descriptive statistics of all the various variables that are under investigation. Looking at the mean we can say that customer support has the highest mean (3.97) which determines customer satisfaction.

Table 4: Descriptive statistics

Descriptive Statistics			
Attributes of satisfaction	Mean	Std. Deviation	Analysis N
My service provider has kept its promise in resolving complaints	3.38	1.230	800
Content based services of my provider is best	3.83	.769	800
I believe my service provider	3.63	.975	800
My service provider has kept its brand image	3.45	1.158	800
My service provider has great future prospect	3.73	.831	800
Transparency of my service provider is superb	3.59	.942	800
VAS services of my service provider is unparallel	3.42	1.211	800
Voice services of my service provider is excellent	3.81	.966	800
Data service provider is excellent	3.79	1.005	800
Customer support of my service provider is excellent	3.97	.837	800
Tariff plans of my service provider is excellent	3.62	1.163	800
I always tell good things of my service provider	3.73	.945	800
I always tell good things of my service provider	3.75	.935	800
I will not switch my service provider	3.50	.864	800
My service provider has kept its promise in delivering overall service quality	3.44	.856	800
After using the services I am more confident about my provider	3.68	.712	800
Brand visibility of my service provider is great	3.48	1.112	800
I am completely satisfied with my service provider	3.30	1.202	800
Before using and after using services of my service provider, satisfaction level has increased	3.42	1.137	800

Source: Primary data

Reliability of the Factor Measurements

As factor analysis derives from a correlation matrix, the used variables should first of all be measured at an interval level. The variables should be normally distributed and thus generalization of the results of the analysis beyond the sample collected becomes possible. As a part of reliability analysis Cronbach alpha was obtained and it was 0.846, which suggests that the variables are reliable.

Table 5 Reliability statistics of all the factors

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.846	.848	19

KMO Measure of Sampling Adequacy and Barlett's Test

The KMO test measures the sampling adequacy which should be close to 0.5 for a satisfactory factor analysis .Kaiser (1974) recommended 0.5 (value for KMO) as the minimum value, however, values between 0.7-0.8 are acceptable, and values above 0.9 are considered excellent.

In the table below, KMO is measured as 0.729, which is acceptable.Bartlett's test is also an indication of the strength of relationship among variables. From the very table, we can find that the Bartlett's Test of Sphericity is significant (0.000), which means that correlation matrix is not an identity matrix.

Table 6: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.729
Bartlett's Test of Sphericity	Approx. Chi-Square	13064.072
	Df	171
	Sig.	.000

Communalities

Communalities, which highlights how much of the variance (i.e. the communality value which should be more than 0.5) is considered for further analysis.

The variables less than 0.5 are removed from further steps of factor analysis.

Table 7 Communalities

Communalities	Initial	Extraction
My service provider has kept its promise in resolving complaints	1.000	.913
Content based services of my provider is best	1.000	.508
I believe my service provider	1.000	.606
My service provider has kept its brand image	1.000	.917
My service provider has great future prospect	1.000	.924
Transparency of my service provider is superb	1.000	.658
VAS services of my service provider is unparallel	1.000	.561
Voice services of my service provider is excellent	1.000	.800
Data service provider is excellent	1.000	.823
Customer support of my service provider is excellent	1.000	.738
Tariff plans of my service provider is excellent	1.000	.715
I always tell good things of my service provider	1.000	.965
I always tell good things of my service provider	1.000	.960
I will not switch my service provider	1.000	.679
My service provider has kept its promise in delivering overall service quality	1.000	.496
After using the services I am more confident about my provider	1.000	.581
Brand visibility of my service provider is great	1.000	.918
I am completely satisfied with my service provider	1.000	.867
Before using and after using services of my service provider, satisfaction level has increased	1.000	.891
Extraction Method: Principal Component Analysis.		

Total Variance Explained

Our analysis has 19 input variables and principal component analysis initially extracts 19 factors. Each component has a **quality score** called an **Eigen Value**. Only variables with high Eigen values greater than 1 are likely to represent a real underlying factor. In the table below,6 components are there which have Eigen value greater than one and have cumulative variance of 76.43 per cent.

Table 8 Total variance explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.325	28.027	28.027	5.325	28.027	28.027	3.422	18.008	18.008
2	3.014	15.865	43.892	3.014	15.865	43.892	2.637	13.878	31.887
3	2.044	10.758	54.650	2.044	10.758	54.650	2.492	13.114	45.001
4	1.845	9.711	64.362	1.845	9.711	64.362	2.338	12.307	57.308
5	1.188	6.254	70.616	1.188	6.254	70.616	2.129	11.205	68.513
6	1.105	5.815	76.431	1.105	5.815	76.431	1.504	7.918	76.431
7	.815	4.290	80.721						
8	.725	3.813	84.534						
9	.643	3.384	87.918						
10	.513	2.699	90.617						
11	.442	2.327	92.944						
12	.405	2.129	95.074						
13	.332	1.747	96.821						
14	.262	1.378	98.198						
15	.176	.928	99.127						
16	.069	.361	99.487						
17	.048	.254	99.741						
18	.035	.186	99.928						
19	.014	.072	100.000						
Extraction Method: Principal Component Analysis.									

Scree Plot

A scree plot visualizes the Eigenvalues (quality scores). From the table below, we see that the first 6 components have Eigenvalues over 1. We consider them as "strong factors". After component 6 and onwards- the Eigen values **drops significantly**. The sharp drop between components 1 to 6 and components 7 to 19 strongly suggests that 6 factors are the strong factors for analysis.

Figure 2 Scree Plot
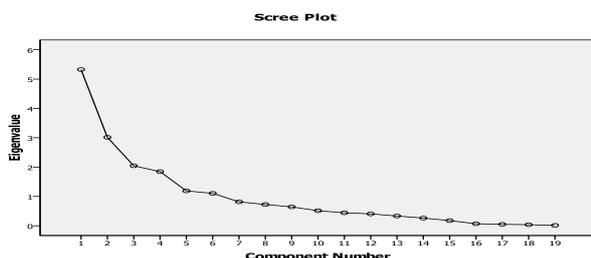
Rotated component matrix

The very objective of rotation is to reduce the count factors on which the investigating variables have higher loadings. Rotation does not change much but ensures that the interpretation of the analysis easier.

From the below table, we can observe that factors like availability of product, and cost of product are substantially loaded on Factor (Component) 3 while experience with product, popularity of product, and quantity of product are significantly loaded on Factor 2. All the remaining variables are substantially loaded on Factor. These factors can be utilized as variables for further analysis.

Table 9 Rotated component matrix

Rotated Component Matrix[a]						
Component						
	Trust	Service Quality	Perception	Switching cost	Loyalty	Customer Satisfaction
Voice services of my service provider is excellent	.866					
Data service provider is excellent	.863					
Customer support of my service provider is excellent	.808					
Tariff plans of my service provider is excellent	.689					
VAS services of my service provider is unparallel	.517					
My service provider has kept its brand image		.932				
Before using and after using services of my service provider, satisfaction level has increased		.930				
I believe my service provider		.669				
My service provider has kept its promise in resolving complaints			.909			
I am completely satisfied with my service provider			.890			
Content based services of my provider is best			.560			
Brand visibility of my service provider is great				.929		
My service provider has great future prospect				.921		
Transparency of my service provider is superb				.528		
I always tell good things of my service provider					.947	
I always tell good things of my service provider					.946	
I will not switch my service provider						.771
After using the services I am more confident about my provider						.640
My service provider has kept its promise in delivering overall service quality						.532
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 6 iterations.						

Source: primary data

Reliability analysis of strong factors

After determination of strong factors, reliability of these factors was determined by finding Cronbach's Alpha. The result suggests that Cronbach's Alpha in all the cases is greater than 0.6, which suggests that the factors are reliable.

Table 10   Reliability (Cronbach's Alpha) of strong factors

SR No	Strong factors	Cronbach's Alpha
1	Trust	0.843
2	Service Quality	0.882
3	Perception	0.833
4	Switching Cost	0.808
5	Loyalty	0.992
6	Customer satisfcation	0.604

To determine the fitness of the model i.e relationship of Customer satisfaction with various other factors regression method has been used.

Table 11 Model Summary

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.464[a]	.215	.210	.51277	.215	43.572	5	794	.000
a. Predictors: (Constant), switching cost1, Loyalty, Perception, service quality, Trust									

R-Square signifies the proportion of variance in the dependent variable (**customer satisfaction**) which can be predicted from different independent variables

(**Service Quality, Trust, loyalty, Switching Cost and Perception**). This value indicates that 21.5 per cent of the variance in customer satisfaction can be predicted from the variables **Service Quality, Trust, loyalty, Switching Cost and Perception**. This analysis is a measure of the strength of association, and it does not reflect the extent upto which any individual independent variable is associated with the dependent variable. R-Square is also named as the coefficient of determination.

Table 12 Anova analysis

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.283	5	11.457	43.572	.000[a]
	Residual	208.770	794	.263		
	Total	266.053	799			
a. Predictors: (Constant), switching cost1, Loyalty, Perception, service quality, Trust						
b. Dependent Variable: customer satisfaction						

Table 13 Coefficients of factors of customer satisfaction

Coefficients[a]								
		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Model		B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound
1	(Constant)	1.997	.122		16.381	.000	1.758	2.237
	service quality	.157	.021	.268	7.554	.000	.116	.198
	Trust	.057	.028	.082	2.051	.041	.002	.112
	Perception	.093	.023	.152	4.111	.000	.049	.138
	Loyalty	.161	.021	.261	7.626	.000	.120	.202
	switching cost1	-.041	.025	-.059	-1.654	.098	-.090	.008
a. Dependent Variable: customer satisfaction								

In table 13 the model column shows the predictor variables (**constant, Service quality, Perception, Switching cost, Loyalty and trust**). The first variable (**constant**) is the constant, which is also referred as Y interception i.e the height of the regression line when it crosses the Y axis. In other words, this is the **Customer satisfaction** predictor when all other variables are 0.

Unstandardized coefficient– They are the values of the regression equation for predicting the variables which are dependent from the independent variables. These are also called as unstandardized coefficients because they are measured in natural units. These coefficients cannot compare with each other to determine, which is more influential in the model. This is so because they can be measured on different scales. The regression equation is presented in various ways, for example:

$$Ypredicted = b0 + b1*x1 + b2*x2 + b3*x3 + b3*x3 + b4*x4+b5*x5$$

The regression equation can thus be written as

Customer Satisfaction = 1.997 +.157*service quality + 0.093*Perception + (-.041)* switching cost +0.161*loyalty+0.057*trust

These estimates tells us the relationship between the individual independent variables with the dependent variables.The focus on the predictors tells are whether they are statistically significant and if so the direction of their relationships. The unstandardized estimates suggests us the increase in customer satisfaction scores that would be predicted by a 1 unit increase in independent variable. For variables which are not significant, the coefficients are not significantly different from 0, which should be taken into account when interpreting the coefficients.

Service Quality
This coefficient (parameter estimate) is 0.157, Which opines that for every unit increase in **service quality**, a 0.157 unit increase in **Customer satisfaction** is predicted, keeping all other variables constant.

Perception
This coefficient (parameter estimate) is 0.093, Which means that for every incremental increase in **perception**, a 0.093 unit increase in **Customer satisfaction** is predicted, keeping all others constant.

Switching Cost
This coefficient (parameter estimate) is -0.041,Which means that for increase of every unit of **switching cost**, a 0.041 unit decrease in **Customer satisfaction** is predicted, keeping all other variables constant.

Loyalty
This coefficient (parameter estimate) is 0.161,Which tells us that for every unit increase in **loyalty**, a 0.161 unit increment in **Customer satisfaction** is predicted, keeping all other variables constant.

Trust
This coefficient (parameter estimate) is 0.057, Which tells us that for every unit increase in **Trust**, a 0.057 unit of increment in **Customer satisfaction** is predicted, keeping all other variables constant.

Further the table above provides the t-value and 2 tailed p-value , that is used to test the null hypothesis. Coefficients with p-values less than alpha are statistically significant. In our case, alpha value is 0.05.The table above suggests that there is a positive statistical association between service quality and customer satisfaction and hence alternate hypothesis H1 is accepted.Further there is positive statistical association between perception and customer satisfaction is also found and hence alternate hypothesis H2 is accepted.

However, there is no significant statistical association is reported between switching cost and customer satisfaction and hence alternate hypothesis H3 is rejected. Loyalty and Trust have also shown positive statistical association with customer satisfaction and thus alternate hypothesis H4 and H5 are accepted.

Table 14 Results of Hypothesis

Path		Unstandardized coefficient	t-test	Sig	Hypothesis
Service Quality	→ Customer satisfaction	.157	7.554	.000	H1:Accepted
Perception	→ Customer satisfaction	.093	4.111	.000	H2:Accepted
Switching cost	→ Customer satisfaction	-.041	-1.654	.098	H3:Rejected
Loyalty	→ Customer satisfaction	.161	7.626	.000	H4:Accepted
Trust	→ Customer satisfaction	.057	2.051	.041	H5:Accepted

VI. CONCLUSION AND SUGGESTIONS

The study has found that trust, service quality, perception, loyalty and switching cost are major factors of customer satisfaction among mobile phone users in Gujarat. The study has also found that there is positive statistical association between service quality-Customer Satisfaction, Perception-Customer Satisfaction, Loyalty-Customer satisfaction and between Trust-Customer satisfaction.

However, no statistical association is found between switching cost and customer satisfaction. The associations of these variables can be quite useful for the telecom service providers to design innovative marketing and retension strategies in this hyper competitive telecom market, where the telecom players are struggling to retain and gain customers.Further the results can also be a pointer for the regulators to devise new regulations which can create a balanced telecom eco system. Considering the competitive scenario of Telecom market in Gujarat, telecom service providers not only needs to focus of quality of service but needs to incorporate measures to build trust, perception and loyalty among customer ,which will indeed ensure customer retention and long term growth of the organization.

VII. LIMITATIONS

The study is mainly centered on mobile users of Gujarat because of time constrain and limitation of resources. Gujarat is considered as one of the developed states in India. However, with more samples across other states of India with varied socio economic back ground, the results could have been more holistic.

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