

AN EMPIRICAL STUDY OF MARKETING MIX, CUSTOMER SATISFACTION AND CUSTOMER LOYALTY IN CONTEXT OF INDIAN TELECOM SECTOR

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ABSTRACT

Indian telecom market is highly saturated. It leads to cut throat competition among different telecom service providers. In the stated scenarios, the study of determinants of customer satisfaction becomes highly significant. In telecom sector, cost of acquiring new customer is many times more than serving existing customer. It highlights the need of studying customer loyalty intentions as well. The current study tries to fulfil the literature gap of such studies in Indian telecom sector, especially in the state of Haryana. The scope of the study is limited to the telecom companies operational in Haryana. Data has been collected with the help of structured questionnaire. The total sample size of the study is 210 respondents chosen from Hisar district that includes customers of both public as well as private sector telecom companies. The data has been analyzed using cronbach alpha, correlation and regression analysis with the help of SPSS. Results conclude that marketing mix, customer satisfaction and customer loyalty are positively and significantly related to each other. Further, results reveal that product, price, promotion, people, and process effect customer satisfaction positively and significantly. Customer satisfaction is also found to have positive and significant effect of customer loyalty.

Keywords: Indian Telecom Sector, Customer Satisfaction, Customer Loyalty

Introduction

Customer satisfaction is defined in many ways by different researchers and practitioners. Customer satisfaction basically depends upon level of services received by customers with respect to level of services expected by them (Gerpott *et al.*, 2001). It is generally an overall rating that customers give to a brand after utilizing services (Kim *et al.*, 2004). Customer satisfaction is related to past experience of using services from same service providers. If a customer has pleasant experience of using services in recent usage, it leads to rise in satisfaction level while displeasing experience leads to rise in dissatisfaction level (Oliver, 1997).

Customer satisfaction can be broadly divided into two categories of transaction specific satisfaction and overall satisfaction (Yi, 1991). Transaction specific satisfaction is related to satisfaction derived from a particular and specific buying or service using experience, while overall satisfaction is derived by adding all transaction satisfaction of recent past. It is truly said that if any service provider can sense its customer needs and can fulfil these needs, it automatically

increases number of satisfied customers (Harris and Harrington, 2000).

Customer Satisfaction in Telecom Sector

Telecom customers are highly unpredictable in nature. It is assumed that, if a customer is using services from the same operator from long time, then he/she is satisfied as compared to a customer who keeps on changing service providers in short duration (Gutek *et al.*, 2002).

Customer satisfaction is highly related to price paid for the services. Price is considered as an important factor for delivering satisfaction among telecom users. Telecom users can be divided into different segments like low usage segment, moderate usage segment and heavy user segment. It is proved that low usage users and heavy usage users of telecom services are more affected by price structure as compared to moderate usage users (Munnukka, 2005).

There is not a single factor that is directly responsible for delivering satisfaction among telecom users. For example, if price structure of a particular telecom provider is cheap but call connectivity is very poor. In this case, customers might prefer the services of telecom provider with higher price, as call connectivity is also one of the essential service parameters in telecom sector. Similarly, good promotional schemes, availability of customer care nearby, and behaviour and skills of customer care employees are also important factors in telecom sector.

Customer loyalty

Customer loyalty is essential for long term business survival. It can be defined as repurchase intention of customer from same service providers. It also provides competitive edge over other market players working in the same field. Customer loyalty is critically important for service industry as loyal customers tend to promote businesses of organization free of cost (Reichheld and Sasser, 1990).

Indian telecom market is becoming highly saturated. Customers are getting services at lowest cost as compared to rest of the world. Due to cut throat competition, it is highly difficult to attract new customers. It needs a lot of resources and also adds financial burden on the service providers. The stated scenario increases importance of retention of customers that can be achieved by increasing loyalty among existing customers. Moreover it is economical to retain customers as compared to attract new one (Reichheld and Scheffer, 2000).

Review of Literature

The studies related to consumer satisfaction, its determinants and customer loyalty have been conducted since years in various industries. Major studies conducted in telecom sectors are discussed in the paper. Barcia (1996) discussed importance of quality of service in determining customer satisfaction of telecom subscribers in Italian telecom market and described four different components of quality which were classified as technical, contractual, human related and security related. Coverage, retain-ability of services, good network and

connection quality were determined as sub-components. Buttle (1996) critical evaluated SERVQUAL model and concluded that, though the model is widely used across different service industries to measure quality of services offered, it should be used with caution as per the specification of particular service industry under study. The model must be revised according the industry before using it. Lim *et al.* (2002) studied customer satisfaction in U.S. telecom market and identified pricing policies, network strength, data services, billing and customer care as important determinants.

Lai (2004) checked effect of service quality and perceived value on customer satisfaction among telecom customers in Singapore. Results revealed that there was a positive relationship among service quality, perceived value and customer satisfaction. Service quality here can be described as the price of the product, promotional schemes, call connectivity, response of customer care etc. Sathish *et al.* (2011) studied behaviour of telecom customers in south part of India. Primary data for study was gathered in and around Chennai city. Result revealed that call rates was most important parameter to determine switching behaviour followed by network quality and value added service provided by telecom operators. Chakraborty and Sengupta (2013) explored determinates of customer satisfaction in telecom sector of West Bengal. The main variables under study were generic requirement, price and flexibility. Study concluded that generic requirement (a combination of output quality and perceived value of service received by the customers) was most important determinant of customer satisfaction.

Upadhyaya and Sharma (2012) studied customer satisfaction of BSNL and Airtel customers in India. Sample size consisted of equal number of subscribers from both Airtel and BSNL telecom operators in Gwalior district of Madhya Pradesh. Customers were found more satisfied with Airtel as compared to BSNL. Results are alarming bell for BSNL to sustain in the market for long run. Jain (2013) discussed service quality parameters of BSNL and Reliance telecom operators in Western Uttar Pradesh. Results clearly indicated that BSNL was performing less in service quality parameters as compared to Reliance. Results further disclosed that customers were more satisfied by the services of Reliance as compared to BSNL. The study suggests that service quality related study should be done on eight parameters which contains tangibility, reliability, responsiveness, assurance, empathy, network quality, complaint handling, and convenience. Natarajan *et al.* (2016) studied service quality and its applicability in managing customer satisfaction in Francis town. Results indicated that 75 % subscribers were satisfied by different services like customer care, tariff plans and value added service. Study revealed that in order to sustain in telecom market, companies should focus on complaint handling system and diversify traffic plans.

Various researchers have studied effect of various determinants of marketing mix on customer satisfaction in telecom sector across globe, but there is nearly no research which study complete marketing mix (7P) in relation with customer

satisfaction specifically in telecom sector. This is the main reason for conducting the present study. The following hypothesis has been proposed to find out the effect of marketing mix on customer satisfaction in telecom sector of India:

H0₁: There is no effect of marketing mix on customer satisfaction in Indian telecom sector.

Hypothesis thus formulated can be tested for all the constituents of marketing mix, i.e., product, price, place, promotion, people, process and physical evidence. Hence, the following sub-hypotheses have been formulated:

H0_{1a} : There is no effect of product on customer satisfaction in Indian telecom sector.

H0_{1b} : There is no effect of price on customer satisfaction in Indian telecom sector.

H0_{1c} : There is no effect of place on customer satisfaction in Indian telecom sector.

H0_{1d} : There is no effect of promotion on customer satisfaction in Indian telecom sector.

H0_{1e} : There is no effect of people on customer satisfaction in Indian telecom sector.

H0_{1f} : There is no effect of process on customer satisfaction in Indian telecom sector.

H0_{1g} : There is no effect of physical evidence on customer satisfaction in Indian telecom sector.

Some of important studies focusing on relationship of consumer satisfaction and consumer loyalty are discussed below. Mittal and Lassar (1998) studies US telecom sector and identified different determinants for customer satisfaction and loyalty, for example, service quality. Gerpott *et al.* (2001) investigated relationship among customer satisfaction, loyalty and retention behaviour in German telecom sector. Poor customer care service was found as one of the main reasons for dissatisfaction of telecom customer. Caruana (2002) analysed effect of service quality on customer loyalty in Malta. Samples were chosen from electronic telephonic directory. Results revealed that customer satisfaction was performing mediating role in linkage of service quality and customer loyalty intentions. Kim *et al.* (2004) studied factors responsible for customer satisfaction and customer loyalty in Korean telecom sector. The effect of network quality, system quality, content quality, customer services and compatibility was checked on customer satisfaction and continuity intentions of customers. All the factors except network quality showed a significant relationship with customer satisfaction. Eshghi *et al.* (2007) studied U.S. telecom industry and revealed that operators should try to provide maximum satisfaction among customers because satisfied customers will not leave operators even if they get new technologies from competitors at cheaper price. Ndubisi (2007) studied service industry of Malaysia and concluded that better communication with customers and conflict handling systems are important factors for customer satisfaction and customer loyalty. Lai *et al.* (2009) determined

parameters of customer satisfaction and loyalty in Chinese telecom industry. Service quality, brand image, value and customer satisfaction were found to be important determinants. Santouridis and Trivellas (2010) investigated service quality, customer satisfaction and loyalty intentions in Greece telecom market. Service quality was operationalised by identifying variables such as network quality; value added services, mobile handset, customer care services, pricing policies and billing structure. Results revealed that customer gave more importance to money related factors like billing and pricing as well as customer care service as compared to mobile handset and value added service.

John (2011) highlighted major factors responsible for loyalty of BSNL customer. Poor network quality and less friendly customer services were found as main threat for retaining the customers. Aksoy *et al.* (2013) analysed linkage between customer satisfaction and customer loyalty in telecom sector of eight different countries. Results showed that it was difficult to achieve high satisfaction and loyalty level in the countries which were highly influenced by cultural values. Porral and Mangin (2015) determined factors delivering customer satisfaction and customer loyalty in Spanish telecom market. Corporate image of telecom companies was found as most important determinant for customer satisfaction as well as for customer loyalty. Munoz *et al.* (2016) analysed complaint behaviour of telecom customers in Spanish telecommunication market. Complaints are continues source of knowing weaknesses about companies operations. If complaints are taken care with serious attention, it helps in improving customer satisfaction and loyalty intentions in long run. Morgan and Govender (2017) mentioned importance of increasing customer loyalty in highly competitive telecom sector of South Africa. Results revealed that loyalty and satisfaction were correlated with each other. Perception of customers and brand value were found significantly affecting customer satisfaction directly and customer loyalty indirectly via customer satisfaction. After reviewing the literature, following hypothesis has been proposed to find out effect of customer satisfaction on loyalty in Indian telecom sector:

H0₂ : There is no effect of customer satisfaction on customer loyalty in Indian telecom sector.

Need of the Study

There are many studies in isolation regarding marketing mix and customer satisfaction and loyalty, but all together these marketing terms are studied very rarely in telecom field. Further, there is a lack of evidence of such research in India especially in telecom sector. So the present study tries to determine important determinants of customer satisfaction in Indian telecom sector.

It is evident from the available literature that Indian Telecom Sector has been studied by many researchers but there is nearly no study in Hisar district of state Haryana. The present study will try to fill the research gap by studying telecom sector in district Hisar.

Objectives

The study mainly examines determinants of customer satisfaction in Indian telecom sector. Study also intends to achieve the following objectives:

1. To study elements of Marketing Mix in context of Indian Telecom Sector.
2. To study effect of Marketing Mix on customer satisfaction in Indian telecom sector.
3. To examine effect of customer satisfaction on customer loyalty in telecom sector of India.

Research Methodology

Following methodology has been used to fulfil research objectives of the study:

Scope of the Study:

The scope of the study is limited to the telecom service providers in India. Marketing mix, customer satisfaction and customer loyalty will be studied for two companies, i.e. BSNL and Jio.

Sample Selection:

Hisar district of Haryana state is taken as sampling area. The total sample size for the study is 210 respondents which are chosen by random sampling method.

Data Collection for the study:

Data for the study has been collected from primary as well as secondary sources. Primary data has been collected with the help of structured questionnaire. A total of 350 questionnaires were circulated out of which 238 were recovered and 210 were found complete and suitable for further analysis. Secondary data has been collected from policy documents, circulars and web portal of various public and private telecom authorities of India.

Key Variables:

Authors have identified and defined variables (marketing mix, customer satisfaction, and customer loyalty) differently. Taking into account the applicability of the identified variables in telecom sector, the variables used in the study are as follows:

Marketing Mix (MMX):

Marketing mix consists of different variables which help to take strategic decision for acquiring advantage in the highly competitive market (Singh, 2012). It is also used to satisfy the customers. In product marketing mix, four Ps (product, price, place, promotion) given by McCarthy (1960) are studied, while in case of service marketing mix, three extended Ps (people, process, physical evidence) given by Booms and Bitner (1981) are also studied along with four already established Ps. Current study has also considered seven Ps of service marketing mix to study it in context of Indian telecom sector.

Customer Satisfaction (CSAT):

Customer satisfaction is defined in many ways by different researchers. Some authors have related it with service quality (Gerpott *et al.*, 2001; (Kim *et al.*, 2004), while others have related it with customer perception about products or services (Anderson *et al.*, 1994). Customer satisfaction is also defined as gap between expectation and actual performance (Hutcheson & Moutinho, 1998). It is also stated as important parameter to predict re purchase intention of customers (Wirtz, 2003). Some researchers favour one item scale for measuring customer satisfaction (Cronin & Taylor, 1992); Gerpott *et al.*, 2001) while others prefer multiple item scale (Lee *et al.*, 2001; (Lai, 2004); Deng *et al.*, 2010). For current study eight item scales is used to measure customer satisfaction (Annexure - I).

Customer Loyalty (CLOY):

Customer loyalty is related to bond or attachment felt by customer towards product or service (Abdullah & Hilmi, 2014). A loyal customer is likely to continue with the same service provider in future. Loyalty is also measured from repeat purchase, frequency of purchase and brand preference of customer (Lee *et al.*, 2001). A total of six items are chosen for determining customer loyalty (Annexure - I).

Tools for Analysis:

The following tools have been used to analyze the data gathered for the study:

- (a) Cronbach alpha to find out the reliability of data.
- (b) Correlation to check the relationship between marketing mix, customer satisfaction, and customer loyalty.
- (c) Regression analysis to find out effect of marketing mix on customer satisfaction and effect of customer satisfaction on customer loyalty.

The data has been analyzed with the help of SPSS 16.0.

Data Analysis and Findings:

According to (Field, 2005), reliability must be checked to validate a questionnaire. To test the reliability of the survey instrument, i.e., questionnaire, cronbach alpha was calculated. In the present study, scale developed for marketing mix comprised of seven factors, constituting a total of 51 items. The alpha coefficient for the scale comes out to be 0.795 which is greater than 0.60 which indicates that the instrument is reliable. Alpha coefficient for scale of customer satisfaction with eight items is 0.883 and for scale of customer loyalty constituted of six items is 0.856. Both the values indicate that scale for customer satisfaction as well as for customer loyalty is reliable.

Validity of the instrument was also checked. First, the parameters were verified using a panel of experts. Second, the questionnaire was pretested for general readability and design. Lastly, several doctoral students reviewed the pertinence of items for the scales. The face validity of the survey instrument was established subsequent to the modifications which were made on the basis of the responses received.

Correlation Analysis

Correlation analysis has been applied to check the relationship between marketing mix, customer satisfaction, and customer loyalty. Pearson correlation has been examined among all the variables to measure the association between them. Correlation matrix for the key variables in the analysis has been presented in Table 1. The correlation matrix shows a significant and positive correlation of overall marketing mix (*MMX*) with all the variables of marketing mix with value ranging from 0.337 to 0.599. The result further shows a significant and low positive correlation between Product (*PRDT*) and People (*PPL*) at one percent level with magnitude

of 0.170. Further, Product (*PRDT*) is significantly positive for Price (*PRC*), Place (*PLC*), Process (*PRCS*), and Physical Evidence (*PHEV*) at five percent level. Price (*PRC*) is highly significant and positive for Promotion (*PRMN*) with magnitude 0.308, whereas, Price (*PRC*) is insignificant for Place (*PLC*) and People (*PPL*). Further, Promotion (*PRMN*) is significantly positive for Place (*PLC*), Process (*PRCS*), and People (*PPL*) with magnitude of 0.338, 0.223 and 0.129 respectively at one percent level. Process (*PRCS*) is further significantly positive for People (*PPL*), and Physical Evidence (*PHEV*) at one percent level with magnitude 0.292 and 0.138 respectively. Physical Evidence (*PHEV*) is highly.

Table 1: Correlation Matrix

Variables	PRDT	PRC	PLC	PRMN	PRCS	PPL	PHEV	MMX	CSAT	CLOY
PRDT	1.000									
PRC	0.102**	1.000								
PLC	0.108**	0.014	1.000							
PRMN	0.032*	0.308***	0.338***	1.000						
PRCS	0.082**	0.080**	0.057**	0.223***	1.000					
PPL	0.170***	0.018	0.037*	0.129***	0.292***	1.000				
PHEV	0.109**	0.046*	0.021	0.054**	0.138***	0.324***	1.000			
MMX	0.452***	0.337***	0.501***	0.599***	0.518***	0.530***	0.435***	1.000		
CSAT	0.295***	0.076**	0.075**	0.072**	0.063**	0.060**	0.015	0.141**	1.000	
CLOY	0.368***	0.073**	0.063**	0.056**	0.057**	0.216***	0.078**	0.260***	0.443***	1.000

Note: ***Correlation is significant at the 0.01 level (two-tailed).

**Correlation is significant at the 0.05 level (two-tailed).

*Correlation is significant at the 0.1 level (two-tailed).

Results obtained by using SPSS 16.0

Significant and positive for People (*PPL*) at one percent level with magnitude 0.324, and insignificant for Place (*PLC*). All other variables of marketing mix are positively related with each other at five percent significant level with magnitude ranging from 0.032 to 0.109.

Physical Evidence (*PHEV*) is insignificant to customer satisfaction (*CSAT*) whereas all other variables are significantly positive for satisfaction (*CSAT*) with value ranging from 0.060 to 0.295. Marketing mix (*MMX*) along with all its constituents is positively significant for customer loyalty (*CLOY*) with value ranging from 0.056 to 0.368. Satisfaction (*CSAT*) and Loyalty (*CLOY*) are positively and significantly related to each other at one percent level with magnitude of 0.443.

Overall, there is a positive and significant relationship among all the variables of marketing mix among themselves except Price (*PRC*) and Place (*PLC*). Further, Marketing Mix (*MMX*), Customer Satisfaction (*CSAT*) and Customer Loyalty (*CLOY*) are positively and significantly related to each other. Similar results have been reported by different researchers (Hallowell, 1996; Mittal and Lassar, 1998; Khan, 2012; Verma and Singh, 2017).

Regression Analysis

The strength of association between customer satisfaction and marketing mix variables was measured by using a linear regression. The following regression models were used to assess the effect of each of the explanatory variables (*PRDT*, *PRC*, *PLC*, *PRMN*, *PPL*, *PRCS*, *PHEV*) and Marketing Mix (*MMX*) on *CSAT* (Verma and Singh, 2017).

$$CSAT_i = \beta_0 + \beta_1 PRDT_i + \beta_2 PRC_i + \beta_3 PLC_i + \beta_4 PRMN_i + \beta_5 PPL_i + \beta_6 PRCS_i + \beta_7 PHEV_i + \varepsilon_{it} \quad \dots (1)$$

$$CSAT_i = \beta_0 + \beta_1 MMX_i + \varepsilon_{it} \quad \dots (2)$$

where,

CSAT = Customer Satisfaction (Dependent Variable for Model 1 and 2)

PRDT, PRC, PLC, PRMN, PPL, PRCS, PHEV = Explanatory Variables for Model 1 (Product, Price, Place, Promotion, People, Process, and Physical Evidence respectively)

MMX = Marketing Mix (Explanatory Variable for Model 2)

$\beta_1, \beta_2, \dots, \beta_7$ = coefficients of explanatory variables

ε = residual term

Multicollinearity problem is likely to occur when explanatory variables correlate with each other. Consequently, the effect of each variable of the dependent variables becomes difficult to identify. Hence, Tolerance Value (TV) for each explanatory variable was used to measure multicollinearity. Normally, a set of explanatory variables is highly correlated when the value of tolerance is closer to zero.

Model 1 examines the effect of marketing mix variables (Product, Price, Place, Promotion, People, Process, and Physical Evidence) on customer satisfaction. Similarly, Model 2 examines the effect of overall marketing mix on customer satisfaction. Results of regression are presented in Table 2.

Column 1 represents the explanatory variables of the study. The results of effect of marketing mix variables (**PRDT**, **PRC**, **PLC**, **PRMN**, **PRCS**, **PPL**, **PHEV**) on customer satisfaction (**CSAT**), i.e., Model 1 are presented in column 2 of the table 2.

As evident from the table 2, the intercept ($\beta = 1.338$; $p < 0.01$) is found to be significantly positive at one percent level. A significant positive coefficient is reported for **PRDT** ($\beta_1 = 0.387$, $p < 0.01$), **PRC** ($\beta_2 = 0.018$, $p < 0.10$), **PRMN** ($\beta_4 = 0.099$, $p < 0.05$), **PRCS** ($\beta_5 = 0.123$, $p < 0.10$) and **PPL** ($\beta_3 = 0.063$, $p < 0.10$); while **PLC** and **PHEV** are insignificant. *R*-square for the analysis is 0.106 and *F*-statistics is significant at one percent level indicating the model fitness.

Table 2 : Regression Results for effect of Marketing Mix and all its components on Customer Satisfaction

Explanatory Variables	Model 1(a)	Model 1(b)
	CSAT	CSAT
Intercept	1.338***	1.594***
PRDT	0.387***	-
PRC	0.018*	-
PLC	0.024	-
PRMN	0.099**	-
PRCS	0.123*	-
PPL	0.063*	-
PHEV	0.066	-
MMX	-	0.348***
No. of Observations	210	210
<i>R</i> ²	0.106	0.141
<i>F</i> - statistic	3.428***	4.235**

Dependent variable is CSAT.

*** indicates level of significance at 1 percent. The test of significance is two-tailed.

** indicates level of significance at 5 percent. The test of significance is two-tailed.

* indicates level of significance at 10 percent. The test of significance is two-tailed.

Results are obtained by using SPSS 16.0.

Regression results indicate that product, price, promotion, process, and people customer satisfaction for Indian telecom sector positively and significantly, whereas place and physical evidence do not have any significant effect on customer satisfaction. This leads to the acceptance of the null hypothesis ***H0_{1a}, i.e., there is no effect of place on customer satisfaction in Indian telecom sector***, along with hypothesis ***H0_{1b}, i.e., there is no effect of physical evidence on customer satisfaction in Indian telecom sector***. Further, the results indicate that product, price, promotion, people, and process effect customer satisfaction positively and significantly. Thus, this leads to rejection of null hypothesis ***H0_{1a}, i.e., there is no effect of product on customer satisfaction in Indian telecom sector***, hypothesis ***H0_{1b}, i.e., there is no effect of price on customer satisfaction in Indian telecom sector***, hypothesis ***H0_{1c}, i.e., there is no effect of promotion on customer satisfaction in Indian telecom sector***, hypothesis ***H0_{1d}, i.e., there is no effect of people on customer satisfaction in Indian***

telecom sector, and hypothesis ***H0_{1e}, i.e., there is no effect of process on customer satisfaction in Indian telecom sector***.

Results of effect of marketing mix (**MMX**) on customer satisfaction (**CSAT**), i.e., Model 2 are shown in column 3. The intercept ($\beta = 1.594$; $p < 0.01$) is found to be significantly positive at one percent level. **MMX** ($\beta_1 = 0.348$, $p < 0.01$) has also reported a positive and significant coefficient for **CSAT** with magnitude 0.348. *R*-square for the analysis is 0.141 and *F*-statistics is significant at one percent level indicating the model fitness. As results suggest that marketing mix effect customer satisfaction of Indian telecom sector in a positive and significant way, null hypothesis, ***H0_{1e}, i.e., there is no effect of marketing mix on customer satisfaction in Indian telecom sector***, is rejected.

Table 3 presents the results of effect of customer satisfaction (**CSAT**) on customer loyalty (**CLOY**). Results indicates that intercept ($\beta = 1.587$; $p < 0.01$) is positive and significant at one

percent level. *CSAT* ($\beta_1 = 0.501, p < 0.01$) has also reported a positive and significant coefficient for *CLOY*. Magnitude of coefficient is also high. *R*-square for the analysis is 0.196 and *F*-statistics is significant at one percent level indicating the model fitness. Further, the model explains 19.3 % variation in Customer Loyalty. The results indicate a positive and significant effect of customer satisfaction on loyalty which leads to rejection of null hypothesis *H0*, i.e., **there is no effect of customer satisfaction on customer loyalty in Indian telecom sector**. The similar results have also been stated previously by Lee *et al.* (2001), Kim *et al.* (2004), Santouridis and Trivellas (2010), and Verma and Singh (2017).

Table 3: Regression Results for effect of Customer Satisfaction on Customer Loyalty

Explanatory Variable	Dependent Variable
	<i>CLOY</i>
Intercept	1.587***
<i>CSAT</i>	0.501***
No. of Observations	210
<i>R</i> ²	0.196
Adj. <i>R</i> ²	0.193
<i>F</i> - statistic	50.862***

Dependent variable is *CLOY*.

*** indicates level of significance at 1 percent. The test of significance is two-tailed.

Results are obtained by using SPSS 16.0.

Implications

The study has various practical implications for researchers and academicians. The findings of the study will be helpful to understand relationship among marketing mix, customer satisfaction and loyalty. The results of the present study are relevant for various practitioners in telecom sector including managers, directors and staff members.

Indian telecom sector is in innovative stage. In order to attain sustainable growth, telecom companies need to focus on customer satisfaction which leads in customer loyalty as indicated in findings of the study. The findings are of great use for policy makers and various high level authorities in developing various plans and policies for telecom sector. Moreover the study can be used by researchers of different industries and different locations throughout the world.

Conclusion

The study analyzed effect of marketing mix on customer satisfaction and effect of customer satisfaction on loyalty in telecom sector of India. The study has been conducted with the help of both primary and secondary data. Data has been collected with the help of questionnaire filled by various respondents all across District Hisar in Haryana. Results indicated significant and positive correlation among different marketing mix variables. Marketing mix, customer satisfaction and customer loyalty are found positively and significantly related to each other. Further, the results

indicated that product, price, promotion, people, and process effect customer satisfaction positively and significantly. The results are consistent with previous studies, for example, Biggs and Kelly (2006) and Srinuan *et al.* (2013) have also reported similar results. The results also indicate a positive and significant effect of customer satisfaction on customer loyalty.

Limitations and Directions for Future Research

There is no doubt that study has significant findings and implication for different sections of society, but still there are some limitations associated with the study. First of all study could not be done extensively due to various barriers faced by researcher which includes difficult to access different parts of the country and language barrier. Research is carried out only in one district of India. Therefore researchers, academicians and policy maker should be cautious in using and implementing the results of the study. It would be a better study if data was collected from different districts and town from the country. Future research can be carried out to study marketing mix, customer satisfaction and loyalty in different industries. Comparative research can also be carried out among different nations to find out variation in customer satisfaction and loyalty.

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ANNEXURE - I

Scale for Customer Satisfaction and Customer Loyalty

Please tick (✓) the appropriate box according to the degree of satisfaction and loyalty after using services of telecom service provider. (SA- Strongly Agree, A- Agree, N- Neutral, D- Disagree, SD- Strongly Disagree)

S.No.	Satisfaction	SA	A	N	D	SD
1	I am truly enjoying the services provided					
2	I feel proud/prestigious in using the services					
3	Feeling of getting good service is consistent					
4	I am receiving the services which I really needed					
5	I feel that my choice of buying this connection is good					
6	I am satisfied with my current service provider					
7	My current service provider is best among all					
8	Using services so far has been a good experience					

S.No.	Loyalty	SA	A	N	D	SD
9	In future I will prefer to continue with the same service provider					
10	I will wait to use the same services in the absence of availability					
11	I will continue with the same service provider despite getting inadequate services					
12	I consider my current service provider as my first choice					
13	I say positive things about my current service provider to others					
14	I recommend the service provider to my friends/colleagues/relatives					