

An Analytical study on Service quality and customer loyalty vs. customer satisfaction with reference to telecommunications services in Nashik City

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Abstract

Telecom industry is one of the most rapidly growing businesses in the world. Presently, India is the second world's largest telecommunication market. Objective of this paper is to critically examine whether service quality and customer loyalty effect customer satisfaction in Nashik city situated in Maharashtra, India. Descriptive design was used to investigate the association between service quality and customer loyalty (independent variables) towards customers' satisfaction (dependent variable). Survey was used for data collection from 530 customers from telecom sector in Nashik city. Data analysis was carried out with the use of SPSS version 20. The findings showed a significant positive relationship between service quality and customer loyalty towards the customer satisfaction. The study will prove useful for academic researchers, managers and practitioners related to telecom companies.

Keywords: Customer satisfaction, Customer loyalty, Service quality, Telecommunication services.

1. Introduction

Telecommunication in India began with the introduction of the telegraph. In 1881, the Government granted license to the Oriental Telephone Company Limited of England for opening telephone exchanges at Calcutta, Bombay, Madras and Ahmedabad. On 28 January 1882, Major E. Baring, Member of the Governor General of India's Council declared open the Telephone Exchanges in Calcutta, Bombay and Madras. Internet Introduced in India started in Delhi 15 August 1995.

1.2 Mobile telephony and internet

With a subscriber base of 1173.76 million (as on 31st Dec, 2020) (TRAI 2021) the mobile telecommunication system in India is the second-largest in the world. As of January 2021, according to Department of Telecommunications (DoT), wireless subscribers in India has increased from 969.54 million in 2015 to 1157.75 million in 2020 (Till 31st December, 2020) (Figure 1).



Figure: -1 Wireless subscribers in India (in million)

2. Objective of the Study

This study seeks to examine the effects of the relationship between the independent variables (service quality and customer loyalty) and the dependent variable (customer satisfaction) in respect to telecom sector in Nashik city. As, the telecom industry is facing immense competition and there are mergers and acquisitions from last many years it is now very much important to understand what makes the customer satisfied. Studies conducted by Newman (2001) and Caruana (2002) found “service quality and customer satisfaction related to customer loyalty through repurchase intentions.” Also the study of Saleem and Raja (2014) has revealed “a positive relationship between service quality, customer satisfaction, loyalty and brand image.” Equally, Prabhakaran and Satya (2003) found a link between service quality and customer satisfaction which helps to induce loyalty.

3. Review of Literature

Literature review covers all earlier work carried out on the topic and focuses on the topic on which research is to be done. It identifies the strengths and weaknesses in previous work. A critical review highlights the potential weaknesses in the earlier work and is a great help in deciding the research problem. Research gap could be found by the survey of the literature and it helps in correlation of the research findings with the previous research on the subject. In the present study review of literature has been carried out related to the research topic so as to gain clarity on the direction of research. The review is comprehensive limited to telecommunication companies and objective of the review is to gain holistic view of customer loyalty and satisfaction in different perspectives.

3.1 Customer satisfaction and customer loyalty in telecom sector

“Customer satisfaction is one of the methods applied to measure customer loyalty (Zameer et al., 2019). Obeidat et al., (2012) and Alshurideh et al., (2017) developed a linkage between service quality and both customer satisfaction and customer loyalty. Arora and Narula (2018) also studied the impact of service quality on customer satisfaction and customer loyalty. Further Lai and Nguyen

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(2017) examined the factors affecting customer satisfaction and customer loyalty at telecommunication industry. Both researchers found that service quality, assurance, responsiveness, reliability, empathy and tangibility have positive relationships with both customer satisfaction and customer loyalty. A study conducted by Herington and Weaven (2007), concluded that providing high quality services to customers and making such customers perceived such quality leads to have high satisfied customers, which in turn creates high level of loyalty, and such loyalty brings customers delight and happiness". This results in increase in the purchasing frequency. Caruana (2002), opined, " customer satisfaction has a significant effect on loyalty. In the event customers who obtain such a high level of satisfaction after evaluating the purchase of products/services, this will have an impact on their level of loyalty to the products/services. It can be concluded that the higher the level of customer satisfaction with the purchase of products/services, the higher the level of loyalty." Therefore, companies should understand the way in which customer will perceive the quality of its products and services (Al-Dmour and Al-Shraideh 2008; Obeidat et al., 2012).

3.2 Customer satisfaction and customer delight in relation to customer loyalty in telecom sector

According to Patterson (1997), " customer delight involves going beyond satisfaction to deliver what can be best described as a pleasurable experience for the client. Accordingly, customer delight and happiness express a stronger emotional status. Torres and Kline (2006) studied how effective management of customer relation can affect customer satisfaction, delight, and their interrelated antecedents. According to them customer delight could be considered as one of the better concepts that can be used to measure customer relationship management because it generate positive general feeling about the organization performance especially when such organizations tend to have better acknowledgments of customer relationship process. Customer satisfaction and delight should be planned strategically, and management should offer all possible means to achieve them. In addition, marketing mix strategy should be implemented (Solimun, and Fernandes 2018)".

3.3 Service quality and customer satisfaction in telecom sector

Customer satisfaction is critical to any business as it not only retains customer but also save on cost in terms of customer acquisition. With competition on all-time high, the communication quality, uninterrupted calls, customer services and service provider' s facilities play a vital role in selecting a telecommunication service provider (Paulrajan, and Rajkumar2011). The quality of the customer service depends primarily on factors like call forwarding, waiting in the queue for the customers care executive and customer service quality. Resolution to the customer and also right customer redressed system defines the very service quality seeker by the consumer while selecting a service provider (Paulrajan, and Rajkumar 2011;Nurysh et al., 2019) through their study suggested that customer satisfaction quotient has direct relationship with service quality. Individual attention and empathy were proven constituents that enhanced customer satisfaction levels amongst the consumers pertaining to customer care services (Opele et al., 2020).

Service has been defined by Rahman (2012) as any intangible offering by a service provider to the consumers for the purpose of meeting the consumers' needs and wants at a commercial significance. It has also been defined as any intangible offer from one party to another which lack ownership of physical product (Kotler, and Keller 2009). Manusamy et al., (2010) viewed, " service as processes or activities that are essentially intangible in nature." Nimako (2012) described, " service as deeds, processes and performances."

Quality can be described as the level of superiority that consumers expect in an offer (Manusamy et al., 2010). Kotler and Keller (2009) stated that all service providers need to develop quality service delivery in order to survive and remain competitive. Quality service delivery can lead to consumers' preference. Rahman (2012) also defined, "quality as the totality of features and characteristics of a product or services that bear on its ability to satisfy stated or implied needs." Service quality is described as the level to which consumers' perceptions of service exceed their expectations. Akbar and Parvez (2009) defined service quality as "the relationship between what consumers' desire from a service and what they perceive that they received. Measuring service quality is a better way to ascertain the standard of services provided and also to ascertain the level of consumers' satisfaction. Service quality is the standard set to satisfy consumers in order to enhance positive attitudes toward the perceived value. Shanka (2012) stated that service quality is the overall superiority of service provided as perceived by the consumers.

Hirmukhe (2012) distinguished services from physical goods by stating that service relates to performance and process while physical goods are of concrete traits which can be touched and counted. The author expressed further that services are first sold, then produced and consumed simultaneously while in terms of physical goods, the first stage is the production, then stored and finally sold for consumption. Chopra et al., (2014) described service quality as a measure of how well the service delivered matches customers' expectations or satisfaction.

4 Research Methodology

4.1 Research design

In words of McBurney (1994), "survey research infers to the accessing of public opinion through the questionnaire". In words of Zikmund et al., (2003), "research design refers to the detailed plan of a study that specifies the procedures and methods for collecting and analysing the data for the purpose of obtaining the solution for a research problem". In our research survey was done with the help of a structured questionnaire, making it a survey research design. Demographic factors as well as study variables were analysed quantitatively through various statistical processes and methods.

4.2 Research problem

India in the field of telecommunication sector is the second largest in terms of total telephone users all over the world. In last few years there have been various mergers and acquisitions due to ups and downs in the telecommunication industry. Moreover, there has been a big question mark for the telecommunication operators how to prevent customer churn in the telecommunication sector. This study has focused on the impact that telecommunication marketing has made on customer's perception and thereby loyalty. In the present study impact of marketing of telecommunication services on customer perception and loyalty has been quantitatively analysed.

4.3 Sampling design population

Population refers to the customers who are eligible to take part in a research survey. In the present study customers of Nashik city using smart phones or bar phones of any type having a telecommunication operator were contacted. Also the sub segments like age, gender, occupation and education were covered so that the study is comprehensive and no related gap is left out.

5. Results and Discussion

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5.1. Demographic construct of respondents

The demographic analysis was carried out of the 530 population, 342 (64.5%) were male while 158 (29.81%) were female. The results of the study displayed the influence of age groups from 21-35 (29.0%) followed by 36-45 (24.33%) were observed. The findings showed that customers with higher secondary other than professional, bachelor and master' s degree were in bulk 187 (35.2%) followed by graduation degree holders, below higher secondary, post graduates and professional certificate holders representing 143 (26.9%), 86 (16.2%), 73 (13.7%) and 41 (7.7%) respectively in Nashik city. The results are presented in Table 2.

Table 2: Demographic study

GROUP A	AGE	FREQUENCY	PERCENT	CUMULATIVE PERCENTAGE
1	BELOW 20	55	10.37	10.37
2	21-35	154	29.0	37.54
3	36-45	129	24.33	63.77
4	46-60	109	22.5	84.33
5	61-80	83	13.8	100
GROUP B	GENDER	FREQUENCY	PERCENT	CUMULATIVE PERCENT
1	MALE	342	64.5	64.52
2	FEMALE	188	35.4	100
GROUP C	MARITAL STATUS	FREQUENCY	PERCENT	CUMULATIVE PERCENT
1	MARRIED	372	70.18	70.18
2	UNMARRIED	158	29.81	100
GROUP D	EDUCATIONAL QUALIFICATION	FREQUENCY	PERCENT	CUMULATIVE PERCENT
1	BELOW HR.SECONDARY	86	16.2	16.2
2	HR.SECONDARY	187	35.2	51.5
3	GRADUATION	143	26.9	78.4
4	POST GRADUATION	73	13.7	92.2
5	DOCTOR/ENGINEER/CA/Ph.D.	41	7.7	100
GROUP E	EMPLOYMENT PATTERN	FREQUENCY	PERCENT	CUMULATIVE PERCENT
1	BUSINESS	64	12.07	12.0
2	GOVT SECTOR EMPLOYEE	127	23.96	36.0
3	PVT SECTOR EMPLOYEE	198	37.35	73.39
4	STUDENTS	101	19.05	92.45
5	OTHERS	40	7.54	100
GROUP F	INCOME	FREQUENCY	PERCENT	CUMULATIVE PERCENT
1	BELOW Rs 10000	151	28.4	28.4
2	Rs. 10000-25000	129	24.3	52.8
3	Rs. 25000-50000	112	21.1	73.9
4	Rs. 50000-75000	74	13.9	87.9

5	Above-Rs 75000	64	12.0	100
GROUP G	NAME OF SERVICE PROVIDER	FREQUENCY	PERCENT	CUMULATIVE PERCENT
1	AIRTEL	151	28.5	28.4
2	RELIANCE JIO	187	35.3	63.7
3	VODA IDEA	137	25.8	89.6
4	BSNL	55	10.4	100
GROUP H	TYPE OF CONNECTION	FREQUENCY	PERCENT	CUMULATIVE PERCENT
1	PRE PAID	501	94.5	94.52
2	POST PAID	29	5.5	100
	TOTAL RESPONDENTS	530	100	

5.2. Pearson' s correlation analysis

The correlation analysis explains relationship between independent variables (service quality and customer loyalty) and dependent variable (customer satisfaction). The correlation between the variables, $r=0.414$ for service quality and $r=0.072$ for customer loyalty and $p=0.0001$. The strength of the relationship can be said to be positive for service quality in case if there is a unit of increase in service quality than there will be a further increment of customer satisfaction by 0.414 (Table 2) predict results. Results of the study are consistent with the work of Liat et al., (2014) “who found out that service quality has a significant and positive direct relationship with customer loyalty”. Also, for customer loyalty case if there is a unit increase in customer loyalty than there will be a further increment of customer satisfaction by 0.072 (Table 3) predicts the results.

Table 3 Showing Pearson' s correlation between service quality and customer loyalty on customer satisfaction

Correlations				
		CS TOTAL	SQ TOTAL	CL TOTAL
Pearson Correlation	CS TOTAL	1.000	.414	.072
	SQ TOTAL	.414	1.000	.876
	CL TOTAL	.072	.876	1.000
Sig. (1-tailed)	CS TOTAL		.000	.049
	SQ TOTAL	.000		.000
	CL TOTAL	.049	.000	
N	CS TOTAL	530	530	530
	SQ TOTAL	530	530	530
	CL TOTAL	530	530	530

5.3. Analysis of linear regression statistics

In Table 4 the model summary with the help of linear regression in which we have taken independent variables (service quality and customer loyalty) and the dependent variable (customer satisfaction) has been depicted. It can be analysed that R square value comes 0.536 which implies that 53.6% independent variables influences the dependent variables. It is also in consonance with the study of Allan (2016) “who found that service quality positively affects loyalty”.

Table 4 Model summary

Model Summary ^c									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.414 ^a	.171	.170	5.470	.171	109.211	1	528	.000
2	.732 ^b	.536	.534	4.098	.364	413.609	1	527	.000
a. Predictors: (Constant), SQ TOTAL									
b. Predictors: (Constant), SQ TOTAL, CL TOTAL									
c. Dependent Variable: CS TOTAL									

5.4. Analysis of ANOVA

Table 5 shows the ANOVA analysis in which we have taken independent variables (service quality and customer loyalty) and the dependent variable (customer satisfaction). It can be analysed that there is a significant level of 0.00^c which is less than 0.05 which indicates acceptance that there is strong relationship between the independent (service quality and customer loyalty) and the dependent variables (customer satisfaction). The output of the study support the work of Liu et al., (2018) “which revealed a strong correlation between customer satisfaction and customer loyalty”.

Table 5 ANOVA analysis

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3267.915	1	3267.915	109.211	.000 ^b
	Residual	15799.360	528	29.923		
	Total	19067.275	529			
2	Regression	10215.279	2	5107.640	304.081	.000 ^c
	Residual	8851.996	527	16.797		
	Total	19067.275	529			
a. Dependent Variable: CS TOTAL						
b. Predictors: (Constant), SQ TOTAL						
c. Predictors: (Constant), SQ TOTAL, CL TOTAL						

6.5. Coefficients

From the coefficient analysis (Table 6) the beta value calculated is 1.512 for SQ TOTAL and 1.253 for CL TOTAL that implies that there is direct relationship between the independent and the

dependent variables also, this can be understood with the help of an equation which tells us how the independent variables act to the dependent variables.

$$Y = a_0 + a_1x_1 + a_2x_2$$

Where, Y is customer satisfaction (CS)

x_1 is service quality (SQ)

x_2 is customer loyalty (CL)

a_0, a_1 and a_2 are the beta values

When, we complete this equation using the beta value this will further look like

$$CS = 0.414 + 1.512(SQ) + 1.253(CL)$$

It can be concluded that SQ and CL are directly associated with CS and if any one of them increase than the CS will increase. Also the findings of the study correlate with the study of Joudeh and Dandis (2018) this can be further clarified by Figure 3.

Table 6 Coefficients

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.476	.843		7.682	.000
	SQ TOTAL	.090	.009	.414	10.450	.000
2	(Constant)	3.545	.648		5.473	.000
	SQ TOTAL	.328	.013	1.512	24.541	.000
	CL TOTAL	1.250	.061	1.253	20.337	.000
a. Dependent Variable: CS TOTAL						

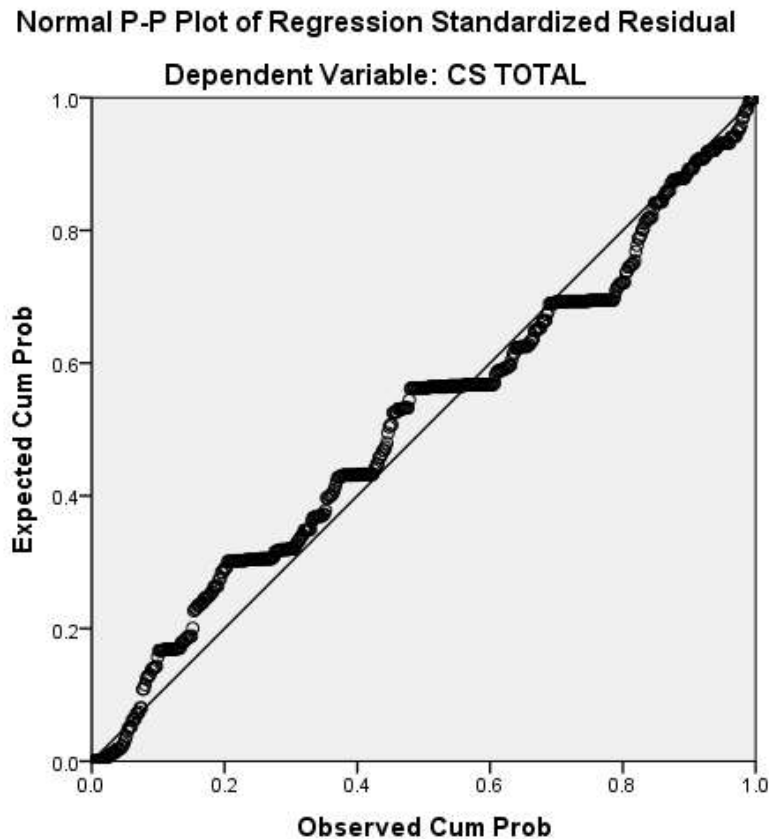


Figure 3 Plotting

7. Implications

1. This study will help the customers to understand the scenario of telecom services in the city and thereby selecting a better option for them in future.
2. The benchmarking analysis shall help to understand whether the current execution of the telecom provider is constant and ineffective.
3. The results may have implications for holding customers in this era of competition and matured telecom sector.
4. The study emphasises on corporate brand building for mobile phone companies.

8. Conclusion

The statistics analysis showed that there was a significant relationship between independent variables (service quality and customer loyalty) and the dependent variable (customer satisfaction) as demonstrated by the beta value which was found to be 1.512 for SQ TOTAL and 1.253 for CL TOTAL. ANOVA and Pearson' s Correlation Analysis suggested the same significance between the variables as the ANOVA significant level was found to be 0.00°which was less than 0.05.

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