Original Research Paper



Information Technology

TO STUDY THE SERVICE QUALITY AND CUSTOMER SATISFACTION REGARDING CELLULAR TELECOMMUNICATION SERVICE PROVIDERS IN INDIA DURING COVID-19 LOCKDOWN PERIOD

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The intent of this paper is to understand the customer satisfaction towards the cellular telecommunication service **ABSTRACT** providers in India, based on five-service quality dimensions- tangibility, reliability, responsiveness, assurance and empathy during Covid-19 lockdown period. One of the important key factor for the success of any organisation is customer satisfaction. This paper analyses whether there is a relation between the five dimensions and customer satisfaction and to examine this, a survey was conducted & 200 responses are recorded. The findings reveals that out of 5 dimensions and their corresponding 14 factors, switching behaviour is the most influencing factor. A close watch by telecom service providers on these 5 dimensions have to be maintained because during covid-19 lockdown period the customer awareness and demand raised exponentially with switching behaviour.

KEYWORDS: Service quality, telecommunication services, tangibility, reliability, responsiveness, assurance, empathy, covid-

INTRODUCTION

It all started back in year 1850, when for the very first time an electric telegraph was to send from Calcutta to Diamond Harbor. In 1854, a Department for Telegraph was constructed and the communication by it started. On 28 January 1882, the first formal telephone service was established with 93 subscribers between these cities- Calcutta, Bombay, Madras and Ahmedabad. In the 1990s, the telecom sector was been opened up the government for private investment. In 1995, TRAI (Telecom Regulatory Authority of India) was been setup. The business peaked in 1998 with the subscriber based reaching nearly 2 million. The Indian mobile subscriber base grew up by approximately 48.5% in 2008. The low call rates, affordable mobile handsets, and changing socioeconomic status of the customers with the regulatory reforms have resulted in the Indian mobile sector to expand by around 10 million subscribers in 2002 to 370 million subscribers by 2008. The GSM players constitutes 75% of the total market with Bharti-Airtel, BSNL, Vodafone, and Idea being the major players.(Balaji, 2009)

India is the 2nd largest telecommunication network in the world as on 31 December 2019. Service level satisfaction is a qualitative term and it is measured in terms of Customer Satisfaction Index score (CSI). A customer satisfaction index is a parameter for measuring the Customer satisfaction and service satisfaction. According to the research, customer satisfaction is positively affecting organization's profitability. These gives the reason to the companies to understand the factors that directly influences the customer's satisfaction. These factors finally helps in making the final strategy to retain and attract their customers. In the current scenario, the competition in the industry of telecom is becoming a challenge of survival for the telecom companies to sustain in such a scenario; the most important decision would to understand the customer satisfaction deeply. Hence, a continuous appraisal for customer satisfaction is a prime need that is achieve by evaluating the service quality.

(https://en.wikipedia.org/wiki/Telecommunications_in_India, n.d.)

Telecommunication is a major sector used by business as well as general population. However, these telecommunication service providers are trying to provide services at every location in the country, which is a complex task to achieve. Moreover, during the lockdown period, the customer base utilizing services became very active and demand became uncertain which created issues like improper billing, call drops, network performance, overall quality of service and more. The customers are now more aware of the services they are receiving and the services they should be receiving for the price they are paying, dissatisfaction with this can lead to switching of telecom service providers.

OBJECTIVE

To measure the service quality and customer satisfaction for Cellular Telecommunication Service Providers in India

To analyze and understand the relation between five dimensions of service quality and customer satisfaction

Hypothesis

This research study focuses on the service quality and customer satisfaction as it applies to the telecommunication companies in India. It reflects through the following set of alternative hypotheses:

- H1: Tangibility affects the customer satisfaction for cellular telecommunication
- H2: Reliability affects the customer satisfaction for cellular telecommunication
- H3: Responsiveness affects the customer satisfaction for cellular telecommunication
- H4: Empathy affects the customer satisfaction for cellular telecommunication
- H5: Assurance affects the customer satisfaction for cellular telecommunication

Literature Review

Even in the presence of several strategies to serve better service quality and raise the customer satisfaction level, customers are not happy. There exist a gap between service delivered to the customers and the service received by them. The need is to understand customer requirements and this has become a challenge for service industry as even customers does not understand their actual needs & requirements. This require more innovative methods for the better understanding of customer requirements effectively. Voice of the customer (VOC) is a technique to find the customer's need effectively. VOC is a term used in business to describe the process of capturing a customer's requirements that describes the customer's feedback about their experiences and expectations for the products or services. (DEOSKAR)

According to Gronroos (1983), service quality perceived by customers has two dimensions. First is technical quality, which emphasizes on exactly 'what' customer's actually receive from service, and the other is functional quality which emphasizes 'how' the services are delivered. If at all it is difficult for the consumer to evaluate the technical competence of a service provider (technical quality), then he usually focuses on attributes associated with the process (functional quality). (Kushwah & Bhargav)

Parasuraman, Zeithaml, and Berry (1988, 1990) forecast a service quality model that identified perceived service quality into five dimensions: tangibility, reliability, responsiveness, assurance, and empathy.

- Tangibles include appearance of physical facilities, personnel, equipment, and communication materials.
- Reliability include the ability to perform the promised service dependably and accurately.
- Responsiveness include the willingness to help customers and

- provide prompt services.
- Assurance include the knowledge and courtesy of employees and their ability to convey trust and confidence. This assurance includes the competence, courtesy, credibility and security.
- Empathy involves the provision of caring, individualized attention the firm provides to its customers. (Sharma & Jhamb)

Research Gap

The previous researchers tried to cover the five dimensions but missed some factors. Moreover, with the development in the technology some of the variables considered in the prior research are now insignificant.

Research Methodology

This research is been conducted and the questionnaire will be shared among 200 customers who are using telecom services in India, specifically for the period of May- June 2020. For collecting data, simple random sampling method is used. Statistical Package for the Social Sciences (SPSS) version 16.0 was use to analyse the collected data.

Data Analysis

The data of 200 responses is analyze across India. The demography of the collected responses are shown in Table 1. It comprises the personal data about the gender, age, service type, occupation.

Table 1: Demographic data

Demographics		No. of Respondents	Percentage (%)
Gender	Male	130	65%
	Female	70	35%
Age	18 to 25	157	79%
	26 to 35	30	15%
	36 to 45	8	4%
	Above 55	5	3%
Service	Post paid	21	11%
Type	Prepaid	179	89%
Occupation	Private	38	19%
	Public Service	4	2%

Table 2: Likert score and Identified Factors after Factor Loading

Factor No.	Name of Factor	Total Variance Explained (%)	Variables	Factor loading	Likert Score
F1	Switching Behaviour	17.624	Switching Behaviour	0.874	0.47
F2	Promotional materials	17.263	Promotional materials	0.805	0.22
	and Call drop problem		Call drop problem	0.691	0.38
F3	Satisfaction from other services	11.285	Satisfaction from other services	0.854	0.62
	And Advanced Technology		Advanced Technology	0.694	0.59
F4	Experienced call centre representatives,	10.893	Experienced call centre representatives	0.888	0.22
	Satisfaction from call centre's action and		Satisfaction from call centre's action	0.825	0.32
	Professionalism in Call centre representatives		Professionalism in Call centre representatives	0.710	0.37
F5	Accuracy in Billing, Payment process,	9.310	Accuracy in Billing	0.851	0.68
	Service Recommendation and Current Offers		Payment Process	0.806	0.82
			Service Recommendation	0.644	0.64
			Current Offers	0.508	0.43

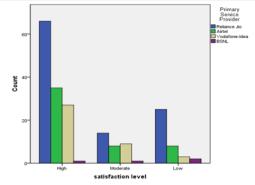
The Table 2 reveals the five factors that exceedingly influence the customer satisfaction and represented with 66.37% variance. The most significant factor identified is Switching Behaviour, which infers that customers are aware and alert about the services they are getting but a slight dissatisfaction can affect in switching among telecommunication service providers. The calculated Likert score identifies payment process, accuracy in billing and service recommendation as highly significant factors.

The multivariate test has been applied to all the 14 factors of five dimensions- Tangibility, reliability, assurance, responsiveness and empathy with the fixed variable 'primary service provider'. All the calculated significant values observed are less than standard significant value (0.05), which suggests that all the factors affect the customer satisfaction level. Henceforth, all the five alternate hypotheses are accepted.

Findings & Discussion

- Reliance Jio is the most preferred network while BSNL is the least
- 2) Switching behavior is the most influencing factor for customer

Teaching	5	3%
Self Employed	10	5%
Student	143	72%



Graph 1: Preference vs Satisfaction

As shown in Table 1, survey results reported that the pattern of the customer consisted of 65% men and 35% of women. About 79% of the respondents were aged between 18 to 25 years.72% of respondents were students, 19% of respondents from private companies, 5% were self-employed, 3% were teaching professionals and 2% were public service employees.

The value of Cronbach alpha (0.75) has confirmed the reliability and consistency of the questionnaire. The collected data from respondents is reliable and consistent. By principle component analysis, followed with rotated component matrix and KMO test, the validity of the factors is been confirmed.

The graph between primary service provider and satisfaction level shows that customers of Reliance Jio are highly satisfied followed by customers of Airtel, Vodafone-Idea and BSNL. However, the dissatisfied customers in BSNL are more in number than it is moderate and satisfied customers.

- satisfaction and customers are now highly aware about the provided services.
- 3) The multivariate test exhibits that there is a correlation between the considered five dimensions and customer satisfaction.

Limitation

- The responses collected are majorly from the age group 18 to 25 hence, it is tough to judge the satisfaction level for other age groups.
- The seven sister states (Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland and Tripura) are missed out and their responses might affect the research output.

CONCLUSION

Customer satisfaction plays a crucial part in survival & growth of an organization. This research identified that Tangibility, Reliability, Responsiveness, Assurance, and empathy affects the customer satisfaction for cellular telecommunication. The considered 14 factors directly influences the customer's satisfaction and hence presents a vision for organization to control and monitor the customer experience. 89.5% of the respondents are using prepaid service type &

only 10.5% are post-paid service users, from collected 200 responses. Based on overall satisfaction (Low 19%, moderate 16%, High 65%) there is a strong association between service quality and customer satisfaction.

Future Scope & Recommendation

- Understanding the customers and responding with user-friendly packages can help an organization to be agile
- Future studies should focus on developing the service quality models for new services provided through the technology of mobile networks like mobile health services, mobile education, mobile commerce, and mobile banking.

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