A Study of The Impact of Service Quality on Customer Satisfaction With Reference To BSNL At Sagar District, Madhya Pradesh, India

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Abstract— **Telecommunication is one of the key support services needed for rapid growth of any developing economy and is one of the fastest developing sectors in India. The contribution of service sector is increasing almost in every economy of world, however, the magnitude of growth of services may be different we can make a general statement- "More developed the economy more is the contribution of service sector in its GDP". This paper aims at measuring service quality and customer satisfaction at BSNL and also explores relationship between quality of service variables and customer satisfaction. The study was conducted by the authors, on 330 Customers of BSNL. It concludes that customers were found to be reasonably satisfied and the impact of service quality on customer satisfaction is significant. The study shows a need of having efficient monitoring system for better service quality management and marketing information.**
Keywords: Service, Service quality, Variables, Satisfaction, Marketing Information System.

I INTRODUCTION

Telecommunication is one of the key support services needed for rapid growth of any developing economy and is one of the fastest developing sectors in India. The contribution of service sector is increasing almost in every economy of world, however, the magnitude of growth of services may be different we can make a general statement- "More developed the economy more is the contribution of service sector in its GDP". At the time of independence the Indian economy was predominantly agricultural economy and the contribution of agricultural sector in the GDP was highest. Slowly the contribution of agricultural sector started decreasing and the contribution of industrial sector started increasing. At that time, there were only a few well recognized services such as Telecom, banking, insurance, healthcare etc. Around 1970, was the era of 4Ps marketing mix and this marketing mix was common for products as well as services. Services were assumed to be an augmentation of physical product. How to market a service was a big question.

Indian telecom sector is more than 165 years old. Telecommunications was first introduced in India in 1851 when the first operational land lines were laid by the government near Kolkata (then Calcutta), although telephone services were formally introduced in India much later in 1881. Further, in 1883, telephone services were merged with the postal system. In 1947, after India attained independence, all foreign telecommunication companies were nationalized to form the Posts, Telephone and Telegraph (PTT), a body that was governed by the Ministry of Communication. The Indian telecom sector was entirely under government ownership until 1984, when the private sector was allowed in telecommunication equipment manufacturing only. The government concretized its earlier efforts towards developing R&D in the sector by setting up an autonomous body – Centre for Development of Telematics (C-DOT) in 1984 to develop state-of-the-art telecommunication technology to meet the growing needs of the Indian telecommunication network.

The last decade is characterized by significant penetration of telecommunications in India. The number of telephone connections has increased to 957.61 million at the end September 2014 to at the end of October, 2014, thereby showing a monthly growth rate of 0.52%. The urban subscription increased from 569.56 million at the end of September, 2014 to 570.58 million at the end of October, 2014, thereby showing a monthly growth rate of 0.18% and the rural subscription increased from 388.05 million at the end of September, 2014 to 392.05 million at the end of October, 2014, thereby showing a monthly growth rate of 1.03%.

II SERVICE QUALITY, SATISFACTION, EXPECTATION AND DISCONFIRMATION

Products and services that meet customer expectations results in customer satisfaction. Quality means the expected

product or service being realized. Before a customer makes a purchase, he or she calculated the worthiness of money about to be exchanged.

In Oliver (1997, p. 13), the following definition has been proposed as being consistent with the conceptual and empirical evidence to date: Satisfaction is the consumer's fulfilment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfilment, including levels of under- or over-fulfilment. Here, pleasurable implies that fulfilment gives pleasure or reduces pain, as when a problem in life is solved.

Customer satisfaction is an abstract concept and involves such factors as the quality of the product, the quality of service provided, the atmosphere of the location where the product or service is purchased, and the price of the product or service. Businesses often use customer satisfaction surveys to gauge customer satisfaction. Typical areas addressed in the surveys include:

> Quality of product
> Value of product relative to price - a function of quality and price
> Time issues, such as product availability, availability of sales assistance, time waiting at checkout, and delivery time
> Atmosphere of store, such as cleanliness, organization, and enjoyable shopping environment
> Service personnel issues, such as politeness, attentiveness and helpfulness
> Convenience, such as location, parking, and hours of operation

Many applied researchers treat service quality and customer satisfaction as interchangeable concepts. However the theorists in customer satisfaction are in agreement that the concepts are quite distinct. In particular, perceived service quality is a rational perception where a satisfaction is an emotion of feeling reaction (Rust, Zahorik and Keiningham 1999).

This study focuses on measuring the level of customer satisfaction and quality of services provided by BSNL at Sagar District to its customers and provides many insights into whether or not services quality differentially affects satisfaction depending upon particulars service settings or situations. It is also an investigation into the extent of customer satisfaction delivered by BSNL at Sagar District, as well as it is a study that identifies the gap between customers' expectations and perceptions. In the view of global changing scenario created by reforms the possibility of India emerging as a major economic power is very high.

III REVIEW OF LITERATURE

Plenty of literature exists on service quality and customer satisfaction research. A few of them, which are related to the theme of this paper, are cited here. Meeting and exceeding expectations of clients and customers is a perspective that has gained most attraction. This concept is all inclusive and cuts across service domains, but expectations change and experiences with alternate service providers could shape the customers' expectations. The important research gap here is attaining customers' expectation towards a particular service. A gap is the difference, imbalance or disparity which is determined to exist between customers' perception of firm performance and their prior expectation. Service quality (SQ) perceived by customers is therefore as a result of a comparison of customers' expectation (E) of services that the organization should offer versus their perception of the performance (P) delivered by the service organization

Service Quality (SQ) = Customer's Perception (P) – Customer's Expectations (E).

Management of service quality largely focuses on managing the gaps between expectations and perceptions of customers. The goal of the firm is to minimize the gap between (P) and (E).

In this context, Leonard L. Berry and A. Parasuraman (1991) showed that inspired leadership, a customer-centered corporate culture, exceptional service-system design and perfect use of information and technology are vital for attaining superior service quality and service marketing.

Mitra, K., (2005), analysed various factors contributing to competition in Indian Telecom Industry. Besides lowering of prices, increased efficiency, greater innovation, high tech industry and better quality services are some of the reasons which are boosting competition amongst various telecom service providers.

Raja, Sharma and Shashikala, (2006), have identified product quality, service support, product distribution, service personnel, information services and corporate brand equity as the underlying factors of customer satisfaction. The article examined the customer satisfaction of mobile handset end users in India. It is important that technological models of the supply side need to be supplemented with the views and impact of perceptions from the demand ride of mobile end users. It ranks the mobile handset users on the basis of various factors and identifies homogenous subgroups among the end users.

Ganguli, S.,(2008),conducted a study on "Drivers of Customer Satisfaction in Indian Cellular Services Market" in which he discussed the impact of service quality and features on customer satisfaction from the cellular users viewpoint.

Power, J.D., (2009), conducted a study on "Customers increasingly want telecom services and products to be bundled" based on responses collected from 11,911 customers nationwide and examined the overall customer satisfaction on six factors - customer service, reliability, billing, brand image, cost of service, and offers and promotions.

Service quality is considered as one of the top priorities of firms at the present time because it gives the company a competitive advantage, helps sustain growth and increases efficiency (Wisniewski & Wisniewski, 2005; Ladhari, 2009b). These days" customers expect higher quality services which puts pressure on businesses to have a better

understanding and measurement of service quality (Wisniewski & Wisniewski, 2005). In the past 30 years there has been considerable debate among academics and practitioners in the literature on defining and measuring service quality (Martinez & Martinez, 2010).

IV OBJECTIVES

Following have been the objectives of the study:

1 To study the relationship between total expectation and total perception of service quality of BSNL at Sagar District.
2 To study the relationship between total expectation of service quality and customer satisfaction of BSNL at Sagar District.
3 To study the relationship between total perception of service quality and customer satisfaction of BSNL at Sagar District.
4 To study the disconfirmation (gaps) between expectation and perception of different dimensions of service quality of BSNL at Sagar District.
5 To measure the level of customer satisfaction in BSNL at Sagar District.
6 To study the intention of customers to recommend the service of BSNL to others at Sagar District.
7 To study the customers' intention to repurchase the services of BSNL at Sagar District
8 To suggest the measures of improvement to BSNL at Sagar District.

Hypotheses

Following hypotheses pertain to objective nos.1 to 4.

H01-There is no significant relationship between total expectation and total perception of service quality of BSNL at Sagar District.

H02-There is no significant relationship between total expectation of service quality and customer satisfaction of BSNL at Sagar District.

H03-There is no significant relationship between total perception of service quality and customer satisfaction of BSNL at Sagar District.

H04-There is no significant gap between expectation and perception of various dimensions of service quality of BSNL at Sagar District.

For remaining four objectives hypotheses formulation and testing were not required.

Research Methodology

The study was exploratory in nature and a sample survey method was employed for data collection. Both primary and secondary data were used for the study.

The Universe

In the present study, the universe included all the customers of BSNL at Sagar District

This choice was made for a number of reasons:

- The customer base is large.
- Rapid changes and reforms in the telecom sector are influencing the BSNL.
- BSNL faced intense competition from private players and
  so it faced a problem of customer retention.

The Sample

The sampling plan used was consistent with the methodological guidelines provided for conducting survey research in marketing.A Stratified random sampling technique was used for the present study.

A sample of 330 respondents was selected with the help of a stratified random sampling method. BSNL has a large customer base in Sagar District. Out of these, 330 respondents were selected for the study. 33 strata were constructed on the basis of demographical variables that are gender, qualification, occupation and income. Such as:

- Male/Undergraduate/Service class/Lower Income group.
- Female/Undergraduate/Service class/Lower Income group.

Like this 33 strata were constructed and in each stratum 10 respondents were interviewed. Hence sample size is 330.

The Tools

A non-disguised structured questionnaire was used. The questionnaire was simple, easily comprehendible and consisted of both open and closed ended questions. The questions focused on customer repurchase intentions, intention to recommend the services to other customers, problems customers face etc. Two Likert scales (SERVQUAL and Customer satisfaction) were used. The reliability and validity of the scales used was high. A pilot study was undertaken first in order to determine whether the questionnaire and the scales are easily understood and responded to by the customers of BSNL at Sagar District.

Data Collection & Analysis

The data for the present study was personally collected by the researchers with the help of a structured non-disguised questionnaire. Data collected with the help of structured questionnaire and the SERVQUAL were classified, tabulated, analyzed and interpreted using suitable techniques including correlation, T- test, averages, simple percentages and ANOVA. Elaborate tables, diagrams etc. have facilitated presentation of the data. The data were analyzed using the SPSS (Statistical Package for Social Sciences).

Analysis & Interpretation The relationship between total expectation and total perception of Service quality of BSNL at Sagar District.

[Table 1 about here]

From the table no.1, this can be observed that there is significant positive correlation between total expectation and total perception of service quality of BSNL at Sagar District. In the light of this, the null hypothesis namely "There is no significant relationship between total expectation and total perception of service quality of BSNL at Sagar District" is rejected.

The relationship between total expectations of service quality and customer satisfaction of BSNL at Sagar District.

[Table 2 about here]

From the table no.2, this can be observed that there is significant positive correlation between total expectation of service quality and customer satisfaction of BSNL at Sagar District. In the light of this, the null hypothesis namely "There is no significant relationship between total expectation of service quality and customer satisfaction of BSNL at Sagar District" is rejected.

The relationship between total perception of service quality and customers' satisfaction of BSNL at Sagar District.

[Table 3 about here]

From the table no.3, this can be observed that there is significant positive correlation between total perception of service quality and customer satisfaction of BSNL at Sagar District. In the light of this, the null hypothesis namely "There is no significant relationship between total perception of service quality and customer satisfaction of BSNL at Sagar District" is not rejected.

Disconfirmation (Gaps) between expectation and perception of different dimension of service quality of BSNL at Sagar District.

[Table 4 about here]

From the Table no.4, this can be observed that the Gap means of expectation and perception of tangibility is 2.13, which is positive. It indicates that tangibility expectation of service quality is higher than tangibility perception of service quality of BSNL at Sagar District. In the light of this, the null hypothesis namely "There is no significant gap between tangibility expectation and tangibility perception of service quality of BSNL at Sagar District" is rejected. From the Table no.4, this can be observed that the Gap means of expectation and perception of reliability is 2.07, which is positive. It indicates that reliability expectation of service quality is higher than reliability perception of service quality of BSNL at Sagar District. From the Table no.4, this can be observed that the Gap means of expectation and perception of responsiveness is 1.94, which is positive. It indicates that responsiveness expectation of service quality is higher than responsiveness perception of service quality of BSNL at Sagar District. In the light of this, the null hypothesis namely "There is no significant gap between responsiveness expectation and responsiveness perception of service quality of BSNL at Sagar District" is rejected.

From the Table no.4, this can be observed that the Gap means of expectation and perception of assurance is -1.49, which is negative. It indicates that assurance perception of service quality is higher than assurance expectation of service quality. In the light of this, the null hypothesis namely "There is no significant gap between assurance expectation and assurance perception of service quality of BSNL at Sagar District" is not rejected.

From the Table no.4, this can be observed that the Gap means of expectation and perception of empathy is 2.04, which is positive. It indicates that empathy expectation of service quality is higher than empathy perception of service quality. In the light of this the null hypothesis namely "There is no significant gap between empathy expectation and empathy perception of service quality of BSNL at Sagar District" is rejected.

As the standard deviation for all the gaps is quite high, it indicates that the variability of the gap between expectation and perception is very high, that means for different strata, the gap between expectation and perception are quite large. Demographically some strata may be having high expectations, some moderate and some low.

Level of customers' satisfaction at BSNL at Sagar District

[Table 5 about here]

From the table no.5, this can be observed that the mean score of customer satisfaction 141.71. This mean value is towards 117 that indicate above average customer satisfaction. Therefore it may be concluded that customer satisfaction is found to be above average.

$$CV = \frac{19.69 \times 100}{141.71} = 13.89$$

The percentage of variation of customers' satisfaction is 13.89, which is low. It indicates that there is less variation amongst customers with respect to satisfaction.

The intention of customers' to recommend the services of BSNL at Sagar District

[Table 6 about here]

From the table no.6, this can be observed that 90.6% customers said that they will recommend the services of BSNL to others and 9.4% customers said that they will not recommend the services of BSNL to others.

The intention of customers to repurchase the services of BSNL at Sagar District

[Table 7 about here]

From the table no.7, this can be observed that 89.4% customers said that they will repurchase the services of BSNL and 10.06% customers said that they would not repurchase the services of BSNL.

IV SUGGESTIONS & CONCLUSION

Relationship between total expectation and total perception of service quality of BSNL at Sagar District.

There is significant positive correlation between total expectation and total perception of service quality.

Relationship between total expectation of service quality and customer satisfaction of BSNL at Sagar District

There is significant positive correlation between satisfaction and expectation of service quality of BSNL at Sagar District.

Relationship between total perception of service quality and customer satisfaction BSNL at Sagar District.

There is significant positive correlation between perception of service quality and customers' satisfaction of BSNL at Sagar District.

The Gaps (disconfirmation) between the expectation and perception of tangibility,reliability,responsiveness, assurance and empathy dimensions of service quality of BSNL at Sagar District.

1. Tangibility expectation of service quality is significantly higher than tangibility perception of service quality of BSNL, indicating negative disconfirmation.

2. Reliability expectation of service quality is significantly higher than reliability perception of service quality of BSNL, indicating negative disconfirmation.

3. Responsiveness expectation of service quality is significantly higher than responsiveness perception of service quality of BSNL, indicating negative disconfirmation.

4. Assurance perception of service quality is significantly higher than assurance expectation of service quality of BSNL, indicating positive disconfirmation.

5. Empathy expectation of service quality is significantly higher than empathy perception of service quality of BSNL, indicating positive disconfirmation.

As the standard deviation for all the gaps is quite high, it indicates that the variability of the gap between expectation and perception is very high, that means for different strata, the gap between expectation and perception are quite large. Demographically, some strata may be having high expectations, some may be having moderate and low.

Satisfaction:

As far as satisfaction of customers is concerned, it may be said that the customer satisfaction was above average and there was less variation among customers with respect to satisfaction.

Intention of customers to recommend the service of BSNL at Sagar District:

90.6 customers said that they would recommend the BSNL to others.9.4% customers said that they would not recommend the service of BSNL at Sagar District to others.

Intention of Customers to repurchase the services of BSNL at Sagar District:

89.4%customers said that they would repurchase the service of BSNL.10.6%customers said that they would not repurchase the service of BSNL at Sagar District.

Suggestions:

On the basis of these findings the researcher has found some key areas of customer dissatisfaction. Given the findings the following has been suggested.

- Quality service has become very important, so continuous improvements are very necessary for all kind of organizations. To fight off the competitors many companies have adopted the concept of Total Quality Management. Total Quality management is a management philosophy committed to focus on continuous improvements of products and services with continuous involvement of the entire workforce. TQM involves customer satisfaction, leadership, increasing employee empowerment and participation and facilitating an organizational culture of continuous quality improvement. BSNL must build quality in services through continuous improvements.

- Benchmarking is another way of improving service quality. Benchmarking is comparing best performing competitors' goods and services with the quality of your firm's goods and services. It would help BSNL to determine what is possible in terms of customer satisfaction and service quality.

- Quality improvement teams may be formed. These teams may include experts from various perspectives. Customers also must be indifferent part of this team, as they know better what they need and want from the company.

- A very strong Management Information System and also a service quality information system is the need of the day for BSNL at Sagar District. MIS should include market surveys, expectation research, customer meets, encounters surveys, employee surveys, expert opinion etc .An information hub can be built in to which all the survey information could be keyed in and made accessible to the managers at large. Competitors' moves should be anticipated and therefore excellent MIS is important. A service quality information system involves service satisfaction customer surveys, research of a mystery shopping kind, surveys to determine why customers select s particular telecom service or leave it, focus group interviews, customer advisory panel, customers complaint, comment and inquiry capture, service reviews, total market surveys including external and competitor survey, employee surveys and service operating data capture. A blend of qualitative and quantitative research methods may be taken up by BSNL to monitor and measure the quality of service and satisfaction delivered. With the help of business process reengineering some unnecessary steps must be eliminated to reduce customer-waiting time. This will help BSNL to improve upon response time and elimination of long waits.

- To achieve competitive advantage, continuous innovation and its management is required.

- BSNL should create an ambience that is pleasing to customer. Customers have complained of long waiting time. The perceived waiting time may be reduced by restructuring the office for waiting customers. This can be simply done by putting newspapers and interesting magazines at customers 'disposable, by putting pictures on

to the walls of the office or making chairs a little more comfortable to sit..

- The customers also have complained of over promising done by the employees in terms of time taken for completion of any task. Employees at counters must be trained to promise less and deliver more. Over promising in advertising should also be avoided. This would improve upon reliability and responsiveness dimension of service quality.

- Training and development programs for employees must be carried out frequently. This will motivate as well as improve upon the assurance and responsiveness dimension of service quality and thereby contributing to enhancement of customer satisfaction.

V CONCLUSION

Due to highly escalating customer expectations and the dynamism of the environment, it is extremely important for BSNL at Sagar District to continuously monitor the quality of service it is delivering and the level of satisfaction of its customers. An efficient monitoring system has to be developed for the measurement of service quality and satisfaction. There is an urgent need for capturing customers' feedback and making changes in the marketing strategies accordingly. Employee satisfaction, motivation, training and development have to be considered as vulnerable issues to improve the existing system. Hence, BSNL at Sagar District must look at profiting through customer satisfaction and service quality, as there is no substitute for these central concepts.

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ANNEXURE 1

Table No. 1

Correlation between total expectation and total perception		
	Pearson correlation	.422(**)
ET-PT	(sig.2- tailed)	.000
	N	330

ANNEXURE 2

Table No. 2

Correlation between total expectation of service quality and customer satisfaction		
	Pearson correlation	.014(**)
ET-ST	(sig.2- tailed)	.799
	N	330

ANNEXURE 3

Table No. 3

Correlation between total perception of service quality and customer satisfaction		
	Pearson correlation	.163(**)
PT-ST	(sig.2- tailed)	.003
	N	330

ANNEXURE 6

Table No. 6

ANNEXURE 4

Table No. 4

Disconfirmation (Gaps) between expectation and perception of different dimension of service quality					
SERVQUAL (E-P)	N	Minimum	Maximum	Mean	Std. Deviation
E-P(Tangibility)	328	-10.00	17.00	2.1372	4.40629
E-P (Reliability)	330	-70.00	65.00	2.0788	9.72665
E-P (Responsiveness)	330	-15.00	63.00	1.9455	6.15875
E-P (Assurance)	330	-25.00	13.00	-1.4909	4.07247
E-P (Empathy)	329	-21.00	27.00	2.0486	6.10658
Valid N (listwise)	327				

Intention to recommend					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	299	90.6	90.6	90.6
	no	31	9.4	9.4	100.0
	Total	330	100.0	100.0	

ANNEXURE 7

Table No. 7

Intention to repurchase					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	295	89.4	89.4	89.4
	no	35	10.6	10.6	100.0
	Total	330	100.0	100.0	

ANNEXURE 5

Table No.5

Level of customer satisfaction					
	N	Min.	Max	Mean	SD
Satisfaction	330	66	195	141.71	19.69