

A Measure on Service Quality in Customer Satisfaction Towards Telecom Networks in India

Dr. S. Saravanan¹, K. Manigandan²

¹ Head of the Department, Anna University, BIT Campus, Trichirappalli.

² Final Year MBA Student, Anna University, BIT Campus, Trichirappalli.

Abstract- *The quality of service is very important measure for the service industry for their long term survival and its growth. At the same time the current position of the service provider is to be analyzed for their performance and stay competitive in market. In this paper 278 samples are considered and data collected through questionnaire. The factor analysis, percentage analysis and chi-square analysis are used for the measurement of service quality. This study will help to the service providers to access the customer perception towards the connection.*

Keywords- Service Quality, Customer Perception, Competitive in Market, Long term survival and growth.

I. INTRODUCTION

In the current scenario service industries are emerging in both developed and developing countries by playing major role in the GDP contribution. With a subscriber base of nearly 1058.86 million, as of March 2016, India accounted for the second-largest telecom network in the world. Availability of affordable smartphones and lower rates are expected to drive growth in the Indian telecom industry. Major advantages of Telecommunication focus India are robust demand, Attractive opportunities, High ratings and Policy support (IBEF Report, 2017).

As well as the advantages, mobile application market is determined as the fast growing segment. It has the Market size at 2016 of 49.62% is higher than the year 2014. The scope is wide for the Telecom Sector. So that this paper focus the study on service quality and customer satisfaction. Unlike product quality, it is difficult to measure service quality. By conducting survey, finding psychographic profile and using various dimensions we can measure the service quality as the quantum level. In this study we took various areas in and around Tiruchirappalli, a district of Tamilnadu for data collection.

II. LITERATURE REVIEW

Bhargav et al., attempted to analyse the gap between the expected and the perceived services in the service quality

domain. In that the study focused major six telecom companies used by the peoples.

James et al., conducted the study which is measures the dimensions of the service quality. They conducted the study through SERVQUAL instrument and the represent the American perspective with the limited concentration of the dimensions.

Zeithaml (2000) described the relationship between quality of service and profitability. The author analyzed the offensive and defensive effects of service quality to found key drivers of profitability and customer retention.

Aravind Malhotra et al (2002) explained the service delivery process through web sites called e-SQ by proposing a model. This study concluded the delivery of service using websites are more efficient and compare the e-SQ delivery with existing delivery.

Srivastava et al., conducted the study at the Healthcare domain and the quality of service which is measured by the Quality Function Deployment Model. In that paper they concluded the four phases of QFD which is used to transform the need of patients by regular planning.

Lynch et al., proceeded in their paper that the service quality and its relation with the new technological opportunities and new regulatory environment. This paper analysed the cost and gave suggestions for improving quality services.

Masud Ibrahim et al (2014) explained the delivery of service quality by dimensions (reliability, responsiveness, assurance, empathy and tangible) and analyzed the service quality gap at Vodafone Ghana telecom industry.

Debasish Baruah et al (2015) conducted a study to find the impact of dimensions of service quality in customer's perception and they assessed the influence of dimensions and gave suggestions to improve the quality of service.

Parasuraman. A et al (1985) pend the concept of service quality and defined the dimensions with proposed

model. In this study, the authors found the gap between the expectations and perceived service.

Sasser et al (1990) emphasized on defecting customer and cost of losing a customer. The authors described about the defection management and zero defection culture for increase in profitability.

Parvez et al (2009) proposed a framework to analyse the customer satisfaction and the effect of quality service for creation of loyal customers.

Zekiri et al (2011) described the perceived service quality and satisfaction using the American Customer Satisfaction Index (ACSI) towards telecom industry. The ACSI model indicates the factors influences satisfaction of customer by repeated purchases of product and generate loyalty.

III. SERVICE QUALITY

A utility company's quality of service applies to the delivery of services to the end user. "Delivery" in this context includes activities preceding and following service delivery and the network components (hardware and software) through which those services (telephone signals, water, and voltage) are provided (Lynne Holt). Service is intangible measure. The definition by Garvin (1988) contains eight dimensions: performance, features, conformance, reliability, durability, serviceability, aesthetics and customer-perceived quality. The difference between customer's expectations for service performance prior to the service encounter and their perceptions of the service received (Asubonteng McCleary and Swan). From the words of Besterfield (1994), customer satisfaction is a complex construct as it has been approached differently. As said by Levesque and McDougall (1996), satisfaction is conceptualized as an overall, customer attitude towards a service provider. Also customer satisfaction has been described as an effective response, focused on product performance compared to some pre-purchase standard during or after consumption (Halstead et al., 1994).

Service quality has been described as a form of attitude, related but not equivalent to satisfaction that results from the comparison of expectations with performance (Bolton and Drew, 1991). Service quality is a complex concept and there are two main methods to measure this variable. The first method regards service quality as the discrepancy between customers' expectations and perceptions of the service. The second method conceptualizes service

quality as "the consumers' overall impression of the relative inferiority/superiority of the organization and its services" (Ling Zhao).

IV. OBJECTIVE OF THE STUDY

- To Study the Service Quality and its impact in Telecom sector's mobile connection.
- To Measure the Service Quality in Mobile Network connection.
- To analyze the relationship between Socio-economic factors and the service quality variables.
- To give suggestions to improve Service Quality in Telecom industry (Mobile connection).

V. RESEARCH METHODOLOGY

- a. Research Type: Descriptive Research. This research includes survey and fact finding techniques.
- b. Service Quality Measurement: using SERVQUAL instrument.
- c. Data collection: Primary data (Questionnaire) and Secondary Data (Literature Review, Journals, Review Articles and Newspapers).
- d. Sampling: Convenient Sampling. This sampling method is used where the cost and time is low as compare to other sampling techniques.
- e. Sample Size: 278.

The above data collected through questionnaires which are the by meeting customers in various areas in and Trichy district of Tamilnadu. All the questionnaire is distributed throughout all the urban and the rural regions.

VI. DATA ANALYSIS

(a) Factor analysis

Factor analysis is used to reduce the dimensions of the required service quality measures. Generally ten dimensions is used to determine the service quality. They are Reliability, Responsiveness, Security, Tangibles, Curtsey, Understanding, Communication, Access, Competence and Credibility. All the dimensions all are not used for all type of service industry. So, the required is dimensions are listed out through Factor analysis.

From the Factor Analysis, the eighteen variables are reduced into Five Factors. Based on the Factor Analysis proposed model is developed.

Table 1: Factor Analysis

Rotated Component Matrix^a

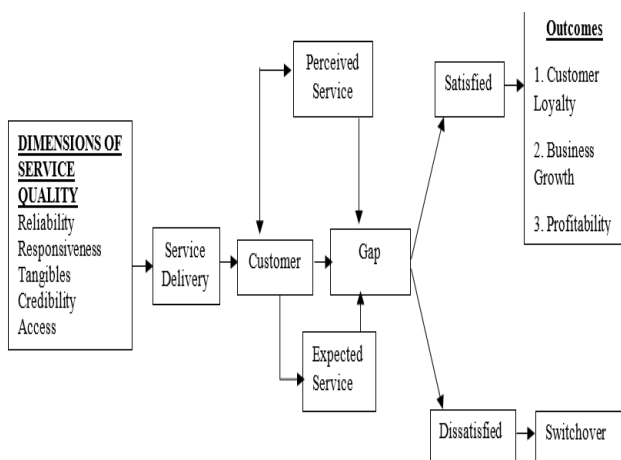
	Component				
	1	2	3	4	5
Response to complaints	.774	.105	.198	.004	-.171
Knowledge of care	.758	.112	.132	.080	-.004
Attention to problem	.680	.221	.099	.135	.139
Ease to contact customer care	.672	.123	.087	.152	.049
Affordable cost	.099	.802	.015	.108	-.077
Cost of data connection	.175	.705	.255	-.103	.134
Accurate callrate	.166	.590	-.065	.282	.086
Speed of data connection	.241	.385	.283	.342	.327
Clean neat appearance	.117	-.183	.716	.071	.054
Signal strength	-.065	.042	.701	.482	-.041
Satisfaction	.059	.412	.665	-.001	-.200
Operating hours	.294	.133	.575	-.061	.082
Individual attention	.284	.315	.409	.042	.111
Clarity of call	.125	.042	.133	.747	-.025
Quality of connection	.068	.253	.081	.722	.100
Comparison of call rate	.410	-.208	-.208	.461	-.020
Trust	.265	.274	.067	.391	-.646
Schemes offers intimation	.127	.273	.045	.242	.628

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Figure 1: Proposed Model



(b) Percentage Analysis

(i) Service Network Provider

The percentage is calculated for the eight type of the Network provider with their respondent rate.

Table 2: Percentage of Network Provider

S.No	Particulars	Frequency	Percent
1	Aircel	51	18.3
2	Airtel	76	27.3
3	BSNL	30	10.8
4	Docomo	13	4.7
5	Idea	18	6.5
6	Reliance	3	1.1

7	Reliance-Jio	32	11.5
8	Vodafone	55	19.8
	Total	278	100.0

Interpretations: In this survey, 18.3 percentage respondent use Aircel, 27.3 percentage respondents use Airtel, 10.3 percentage use BSNL, 4.7 percentage use Tata Docomo, 6.5 percentage respondents use Idea, 1.1 percentage use Reliance, 11.5 percentage respondents use Reliance-Jio network and 19.8 percentage respondents use Vodafone network.

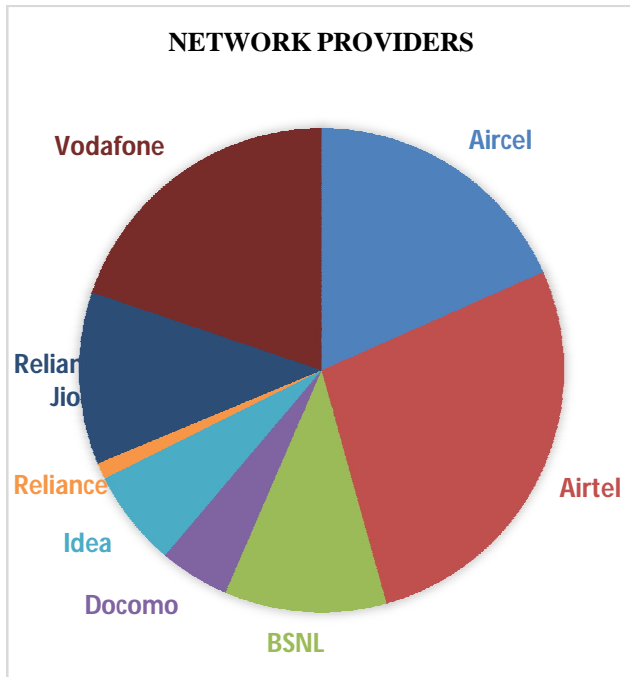


Figure 2: Pie chart of Network Provider

(ii) Comparison of Call rate

Table 3: Call Rate frequencies

S.No	Particulars	Frequency	Percent
1	Very high	36	12.9
2	High	89	32.0
3	Medium	123	44.2
4	Low	17	6.1
5	Very low	13	4.7
	Total	278	100.0

Interpretations: The survey shows 12.9% very high rate for their mobile connection, 32.0% falls under high, 44.2% of their category falls under medium category, 6.1% rates low category and 4.7% rate Very low category.

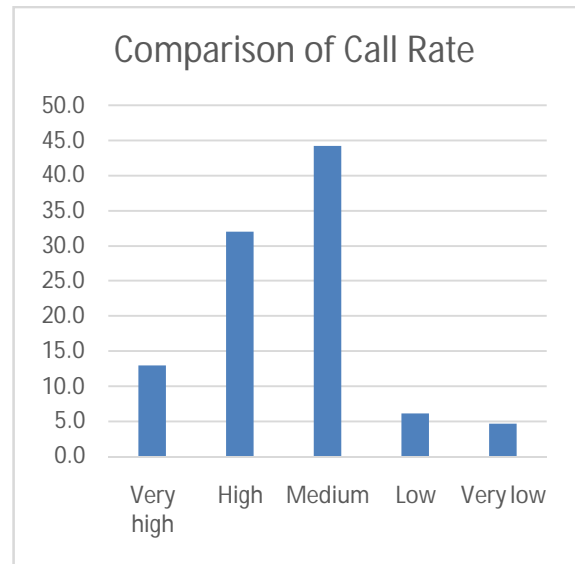


Figure 3: Comparison of Call Rate

Table 4: Age * satisfaction Cross Tabulation Count

Count	Satisfaction					Total
	Highly satisfied	Satisfied	Neutral	Dissatisfied	Highly dissatisfied	
20-25 yrs	18	100	50	8	2	178
26-30 yrs	2	24	13	6	3	48
31-35 yrs	0	12	7	3	0	22
36-40 yrs	0	6	2	2	0	10
41 & above	1	13	5	1	0	20
Total	21	155	77	20	5	278

Calculated Value: 19.953

Tabulated Value: 26.30

Calculated value < Tabulated Value.

So H₀ is accepted.

(ii) Quality of connection Vs area of residence

H₀: There is no significance difference between quality of connection and area of residence.

H₁: There is a significance difference between quality of connection and area of residence.

Table 5: Area of Residence * Quality of Connection Cross-Tabulation

Count		Quality of connection					Total
		Excellent	Good	Average	below average	poor	
		City	24	54	23	7	
Area of residence	Town	11	49	19	6	2	87
	Village	16	39	23	5	0	83
Total		51	142	65	18	7	278

Calculated Value: 8.626

Tabulated Value: 15.51

Calculated Value < Tabulated value.

So H₀ is accepted.

VII. FINDINGS AND RESULTS

- a. The maximum response rate was realized at the Airtel network Provider and the lowest response rate was realized at the Reliance CDMA.
- b. There is no relationship between Customer Satisfaction and the age groups.
- c. There is no relationship between Quality of connection and Area of the residence.
- d. Recommendation analysis is given below. 70.9% of the respondents recommend their service provider to others.

Table 6: Recommendation table

S.No	Particulars	Frequency	Percent
1	Yes	197	70.9
2	No	81	29.1
	Total	278	100.0

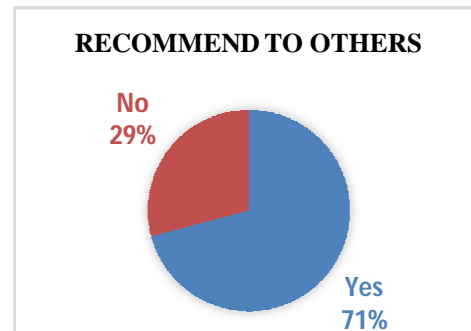


Figure 4: Recommendation to others

VIII. CONCLUSION

The analysis is based on the view of respondents. From the analysis, the number of user is high i.e., Airtel. So that the sample is the exact replica for original sample. From that point of view, the conclusions are made. The customers are satisfied with their network connection they have. They also recommend their service for others. But the gap is happened at the comparison of call rate with other service providers. It can be said that the customers expect low call rate. But for better quality, the amount may be spent to get prompt service.

VIII. FUTURE RESEARCH

The area is restricted in only one district. The extension of the number of samples and the area, the accurate result can be found. In depth analysis can be made for the each and every separate telecom service provider. From that analysis, the factor or variable influences the customer to withhold the particular network can be found.

REFERENCES

- [1] A. Parasuraman, V. A. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. Journal of Marketing, 41-50.
- [2] Aravind Malhotra, V. A. (2002). Service Quality Delivery Through Web Sites: A Critical Review of Extant Knowledge. Journal of the Academy of Marketing Science, 362-375.
- [3] Bhargav, S. V. (2014). SERVICE QUALITY EXPECTATIONS AND PERCEPTIONS OF TELECOM. International Journal of Advancements in Technology, 1-10.
- [4] Debasish Baruah, T. N. (2015). Impact of Service Quality Dimensions on Customer Satisfaction in Telecom Sector. International Journal of Engineering Trends and Technology, 111-117.

- [5] James, G.-D. K. (2004). Service quality dimensions: an examination of Gronroos's service quality model. Emerald Group of Publishing Limited, 266-277.
- [6] Lynch, S. V. (1992). The measurement and encouragement of the telephone service quality. In S. V. Lynch, Telecommunication policy (pp. 210-224). Butterworth-Heinemann Ltd.
- [7] Masud Ibrahim, R. N. (2014). QUALITY SERVICE DELIVERY AMONG TELECOMMUNICATION SERVICE OPERATORS IN GHANA: A CASE OF VODAFONE-GHANA. International Journal of Economics, Commerce and Management, 1-18.
- [8] Parvez, M. M. (2009). Impact of Service quality, trust and customer satisfaction on customer loyalty. ABAC Journal, 24-38.
- [9] Sasser, F. F. (1990). Zero defections: Quality comes to services. Harvard Business Review, 105-111.
- [10] Srivastava, P. G. (2011). Customer satisfaction for Designing Attractive Qualities of Healthcare services in India Using Kano Model and Quality Function Deployment. International Journal of Mechanical Engineering, 101-107.
- [11] Zeithaml, V. A. (2000). Service Quality, Profitability, and the Economic Worth of Customers: What We Know and What we need to learn. Journal of the Academy of Marketing Science, 67-85.
- [12] Zekiri, B. a. (2011). Measuring Customer Satisfaction with Service Quality Using American Customer Satisfaction Model (ACSI Model). International Journal of Academic Research in Business and Social Sciences, 232-258.
- [13] IBFP Report.