

Factorial Study of Consumer Satisfaction Scale on Indian Telecom Services

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Abstract: *The article has made an attempt to develop a comprehensive scale for measuring the factors of consumer satisfaction on telecom services in India. A sample of 75 respondents was randomly selected and administered 25-items of consumer satisfaction scale. Results of the factor analysis show the outcome of 3-factors and they were: service availability, service quality and customer service. The final form of the scale consists of 31-items describing the various factors of consumer satisfaction deleting 4-items. Both face and content validities were found in the scale. The study findings would help marketing managers in their consumer studies and in formulating marketing plans accordingly.*

I. INTRODUCTION

Consumer satisfaction is now an integral part of any business. Drucker (1973) described customer satisfaction as the base for business success. And, customer satisfaction is corner stone for relationship between marketing and management (Claycomb & Martin, 2002).

Though a number of studies have supported the view that consumer satisfaction is positively related to the brand loyalty and repurchase of mobile services, a study of Kim et al (2004) found that customers' satisfaction led them to use current services and created loyal customers for fortune.

The scale measuring the level of consumer satisfaction may not reveal the underlying factors which are contributing is nature. The factors affecting or influencing customer satisfaction is worth understanding by the managers so that the managers know what creates satisfaction among customers for a particular brand (Muzamomil, 2010).

In the present study, an attempt was made to develop a comprehensive scale for measuring the factors associated to consumer satisfaction on telecom / mobile services in India.

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II. STUDY OBJECTIVES

- To identify the various factors related to consumers satisfaction, and
- To devise a reliable and valid scale for use with the sample of Telecom/ Mobile users in India

III. METHODOLOGY

3.1 SAMPLE

The sample of the study composed of 100 respondents. Their age ranged from 20 to 60 years with mean age of 35.2 years. They were selected by a simple random sampling method. The users of different types of private mobiles such as: Airtel, Tata Docomo, Reliance, Idea, and Vodafone were taken as a sample.

3.2 DESCRIPTION OF TOOL

Consumer satisfaction scale emerged out of an exhaustive survey of literature and suggestions made by experts in the field. It is a 5-point scale ranging between "Strongly agree" to "Strongly disagree". The raw scores of "5" to "1" and later the factor scoring method were adopted for statistical analysis of data. The items in the scale cover the factors of consumer satisfaction.

3.3 FACTORIAL METHOD

The raw data from the study sample (N=75) was computerized for factor analysis by the method of principle factoring orthogonal Rotation: Varimax with Interaction (Kim, 1970). It involves 3 steps: a) Preparation of the correlation matrix, b) Extraction of the initial factors, c) The rotation to a terminal solution – the search for simple and interpretable factors.

The factors analytic report of the scale consists of 3-factors which were labelled according to experts' suggestions. The final form of the scale consists of 31-items, after deleting 4-items which were below 0.50 in factor loading. The labelled factors were: service availability, service quality and customer service.

To obtain the reliability measure, the internal consistency method was adopted; it was done through the factor analysis. Moreover, face validity and content validity were established by the opinions of experts on labelling these factors.

IV. RESULTS AND DISCUSSION

The results of the factorial analysis showed that all the items were positively loaded with one another. These items were arranged in order of hierarchy, and the factor loading of 0.50 was taken into consideration for the factor interpretation.

Table 1 : Service Availability (Factor-I)

S.No.	Item Contents	Factor Loading
1	I feel that the clarity is good	0.78
2	I feel the delivery of SMS based service is satisfactory	0.75
3	I feel the delivery of MMS based service is satisfactory	0.76
4	I feel the voice message is good	0.74
5	Roaming facility is satisfactory	0.73
6	Downloading of ring tones are good	0.71
7	The activated dialling is good	0.71
8	The wireless internet access is satisfactory	0.68
9	Download of games is satisfactory	0.67
10	Attractive promotional offer by service provides	0.65
11	The product offer is best technology	0.62
12	The service provides real time service and dynamic computer information to customers	0.61
13	The trouble shooting service is fast and accurate	0.59

It is observed from the Table 1 that the first factor contains 13 items of which 7 items are fairly high loaded ($r = 0.70 - 0.78$) and rest 6 items just moderately loaded ($r = 0.60 - 0.70$). The 13 items contribute to the variance of 30.1 percent. The service availability of the items were expressed as: clarity is good, delivery of SMS based service is satisfactory, delivery of MMS based service is satisfactory, voice message is good, Roaming facility is satisfactory. Hence, the factor is labelled as "service availability".

Table 2 : Service Quality (Factor II)

S. No	Item Contents	Factor Loading
1	I am satisfied with the customer care handling the complaints	0.73
2	I am satisfied with the billing procedure of the service	0.71
3	I am satisfied with the network innovativeness	0.70
4	I am satisfied with the recharge cards & its denominations	0.66
5	I appreciate the offers like life time validity	0.65
6	I am satisfied with the signal in the service provider	0.63
7	I think the schemes and offers are really worth to the customers	0.60
8	I am satisfied with the roaming services	0.60
9	I am satisfied with the services provided like ATM, Hospital, Hotels etc.	0.61
10	I feel the services are highly matched with the price charges	0.59
11	I feel great extent of the services meet my personal requirements.	0.55

The items in the "service quality" show that, out of 11-items in the factor 3-items are highly loaded ($r = 0.70 - 0.73$) and 5-items are moderately loaded ($r = 0.60 - 0.70$). The table reveals the 25.7% of variance accounted for factor-II, the "service quality." Most of the items in this factor are pertinent to customer-care handling the complaints, satisfaction in billing procedure of the service, satisfaction with the network innovations, and satisfaction with recharge cards and its denominations.

Table 3 : Customer Service (Factor III)

S.No	Comments	Factor Loading
1	The service personnel are willing to help the customers	0.75
2	The service personnel have sufficient professional skills	0.73
3	The service personnel are providing best service to the customers	0.72
4	The service personnel will follow up with initiative whenever customers report problems	0.69
5	The company pays great attention to the interest of the customers	0.65
6	The company provides free online service (Toll free) to process services for customers within 24 hours	0.64
7	The company provides flexible services according to the needs of the customers.	0.60

It is obvious from the Table - 3 that the first 3 items are highly loaded. ($r = 0.70 - 0.75$) and the rest moderately loaded. The 7-items of the factors contribute to 22.4 percent variance. The labelling of the factors reveals that the service personnel are willing to help the customers, service personnel have sufficient professional skills, service personnel are providing best services to the customers, and the company pays great attention to the interest of the customers.

Table 4 : Eigen Value and Proportion of Variance of Three Customer Satisfaction Factors

Factor	Eigen Value	Proportion Variance	Cumulative Variance
I. Service Availability	3.56	30.1	30.1
II. Service Quality	2.59	25.7	55.8
III. Customer Service	1.26	22.4	78.2

From the Table 4, it is observed that "Service Availability" has the highest Eigen value (3.56) and "customer service" the lowest. (1.26).

Further, the observation of the table reveals that the total of 3-factors explained cumulative proportion of 78.2 percent of variance which means most of the items on the scale are relevant and valid.

V. CONCLUSION

The results obtained from the study reveal that the identification of three independent factors of consumer satisfaction; namely: service availability, service quality and customer service are highly helpful to both the customers and service providers to get an insight about the perception of the consumers' preferences for their services.

The results of the previous studies show that there exists a strong relationship among service availability, service quality and customers satisfaction. In this respect, the development of this scale would help identify the factors influencing consumer satisfaction which proves to be effective in conducting research in future.

On the whole, the development of this scale seems to be promising to serve the purpose for which it is developed.

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