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Customer Satisfaction towards the Landline Service Provided by Bharat Sanchar Nigam Limited (BSNL) Telecom

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Abstract:

The study entitled “Analyze the Customers Satisfaction Level towards the landline service provided by BSNL is undertaken to analyze the customer satisfaction level. Each and every activities starts and ends with customer in this competitive business scenario. So customer satisfaction is important to every organization. The research study conducted is descriptive in nature and the sample size used for this study is 200. Both primary and secondary data are collected to meet the requirements.

For collecting the data a structured questionnaire method is used as an instrument. The questionnaire is based on multiple choices, open ended and close ended questions. The study is mainly based on the primary data and the required primary data were collected through the structured questionnaire from the two hundred sample respondents who were selected through the simple random sampling method. In this study Simple Percentage Analysis, Weighted Average Method, Chi-Square is used to interpret the data collected. And this study reveals that the overall satisfaction level is good and few areas of dissatisfaction are also identified and relevant suggestion are given to improve the service of BSNL.

Key words: Customers, Bharat Sanchar Nigam Limited (BSNL) Land line and Statistical Analyzed

1. Introduction

Telecommunication is recognized, world over, as a key factor in the development of social, economic, commercial and cultural activities. The development of telecommunication infrastructure is likely to play a greater role in meeting the diverse needs of people and improving their quality of life through inter-linked development of many other sectors. The term ‘Telecommunication’ in ITU parlance covers a very wide variety of services such as sound & television broadcasting, space communications, aeronautical and maritime mobile communications, radio-location and radio-navigation systems, radio astronomy, meteorological aids and services, radio amateurs, etc, besides the public telecommunications services. There are large telecommunication networks belonging to railways, defence and para-military organizations, law and order services (police etc), public utility organizations like electricity grids, transport organizations, municipal services, national and international telecommunications service providers – both government and private, civil aviation department and airlines, shipping & port authorities, sound and TV broadcasting organizations, meteorological department, oil exploration, processing and distribution companies, large private companies, etc.

1.1. Expected Growth of Public Telecommunication Services

Despite large growth and development of telecommunications in India since independence, the general availability of these services to public had been much below the world standards. Telecommunication sector was recognized by the Government of India as one of the few basic infrastructure sectors for the country. Under the Government policy of economic liberalization, privatization and competition in India, private sector has been allowed to enter the public telecommunication field (which was a Government monopoly), with the objective of making the telecommunications, within the reach of all, achieve universal service covering all villages, bringing the telecommunication services to the world standard, etc., while protecting the defense and security needs of the Country.

1.2. Fixed Telephone Lines & Mobile Services

As per the Perspective Plan (1997-2007), to meet the objective of providing telephone on demand, the additional requirement of telephones during the period from 1997 to 2007 would be 66.4 million of which 23.7 million would be for the period from 1997-2002. It is expected that the number of fixed telephone lines would be 4 per 100 persons by the year 2002. There may be 9 telephones per 100 persons by the year 2007. The private sector is expected to provide approximately 25-30% of this growth in basic telephone service. More than 10% of these new lines are expected to be provided using wireless local loop (WLL). In consonance with the economic state of the country, the percentage growth of mobile phones and other related services is likely to overtake the fixed phone services. The efficient technologies shall be available with the passage of time. The price of mobile services would be competitive to fixed services. It is expected that the number of mobile phones of various types may be about 2.5 million by 2002 and 10 million by 2007.

1.3. Technology Vision

The speed of technological progress, especially in the field of personal communications - both terrestrial and satellite based, presents vast opportunities for the telecommunication service providers as well as the users. Various technologies for Cellular mobile service, Wireless Local Loop in the fixed service, radio paging and radio trunking services, Global Mobile Personal Communication through Satellite, etc. are emerging. The 3rd generation Cellular mobile systems, International Mobile Telephony - 2000 and Universal Mobile Telephony System, are some of the technologies under development for public telecommunications arena and are likely to be available in the beginning of the next century. IMT-2000/UMTS systems would be capable of providing a wide range of services, such as multi-media, video-conferencing and high speed internet access, and provide for an integration of terrestrial and satellite technologies. These technologies are not likely to be commercially available in India before the year 2004.

Most of these existing systems and new developments are using digital technology. The frequency bands around 800/900 MHz and 1700 - 2200 MHz are extensively exploited by these existing technologies and new developments are also taking place in these bands. Incidentally, these frequency bands are already very heavily used for various existing radio communication services and networks in India. Some future IMT-2000/UMTS applications may require transmission at very high data rates where the user is stationary and for such applications, it may be possible to utilise frequency bands above 3 GHz. These technologies are likely to be available in the long term.

1.4. Objectives

To study the customer satisfaction level towards Landline service provided by BSNL.

2. Research Methodology

Methodology is a way to systematically solve the research problems. It explains the various steps that are generally adopted by a researcher in studying the research problem with logic behind them.

2.1. Research Design

The research design is the basic framework or a plan for a study that guides the collection of data and analysis of data. In this market survey the design used is used Descriptive Research Design. It includes surveys and fact-finding enquiries of different kinds. The major purpose of descriptive research is description of state of affairs, as it exists at present.

The information are collected from the individuals and analyzed with the help of different statistical tools, to find the satisfaction level of customer. Moreover cross table analysis has been done for processing the data and information is derived to attain the objective of the study.

2.2. Sampling Technique

Simple Random Sampling Method is used to collect data. Data has been collected from the sample chosen from the directory randomly.

2.3. Sample Size

The size of the sample is 200, and factors to be considered are time, cost and effectiveness etc. The study was conducted during the period January 2011

3. Statistical Tools Used For the Study

The data has been mainly analyzed by using the following methods and tests.

- Percentage Analysis
- Two – way analysis
- Ranking Method
- Chi – Square Test

Cross Tabulation and Percentage method supplemented by appropriate charts are used to interpret the analysis.

3.1. Percentage Analysis

Percentage refers to a special kind of ratio in making comparison between two or more data and to describe relationships. Percentage can also be used to compare the relation terms the distribution of two or more sources of data.

$$\text{Percentage of Respondents} = \frac{\text{Number of Respondents}}{\text{Total Respondents}} \times 100$$

3.2. Ranking Method (Weighted Average Method)

This technique was used to rank out the opinion about the characteristic of CitiFinancial mortgages by the industrial sectors in the study area. In this method the respondents were asked to rank their opinion about the characteristics of the company. The order of merit given by the respondents was converted into ranks by using the following formula.

$$\begin{aligned} \text{Weight age Score} &= \sum W_i X_j \\ \text{Where } W_i &- \text{Weight age value} \\ X_j &- \text{Ranking position value} \end{aligned}$$

3.3. Chi-Square Analysis

Chi-square is a non-parametric test of statistical significance for bi-variate tabular analysis. A non-parametric test, like chi square, is a rough estimate of confidence.

Chi-square is used most frequently to test the statistical significance of results reported in bivariate tables and interpreting bivariate tables is integral to interpreting the results of a chi-square test.

3.4. Chi – Square Test Method

The Chi – square method is the application of testing the significant difference between observed and expected values.

3.5. Null Hypothesis (H_0)

The hypothesis, or assumption, about a population parameter we wish to test, usually an assumption of the status quo.

3.6. Alternative Hypothesis (H_1)

The conclusion we accept when the data fail to support the null hypothesis.

3.7. Statistical Test

$$\text{Chi-square test } (\chi^2) = \sum \frac{(O - E)^2}{E}$$

Degrees of freedom = (R-1) (C-1)

Whereas,

O = Observed frequency

E = Expected frequency

R = Number of rows

C = Number of columns

To find E:

$$\text{Expected Frequency} = \frac{\text{Row Total} \times \text{Column Total}}{\text{Grand Total}}$$

3.8. Level of Significance (α):

A value indicating the percentage of sample values that is outside certain limits, assuming the null hypothesis is correct, that is, the probability of rejecting the null hypothesis when it is true.

S. No.	Duration	No. of Respondents	Percentage
1.	Less than 1 year	4	2.0
2.	1 to 3 years	49	24.5
3.	3 to 5 years	87	43.5
4.	More than 5 years	60	30.0
	Total	200	100.0

Table 1: Period of Using BSNL Land Line

It is noted from the above table that 43.5% of the respondents are using the BSNL landline for 3-5 years, 30.0% of the respondents are using the BSNL landline for more than 5 years, 24.5% of the respondents are using the BSNL landline for 1-3 years and 2.0% of the respondents are using the BSNL landline for less than 1 year.

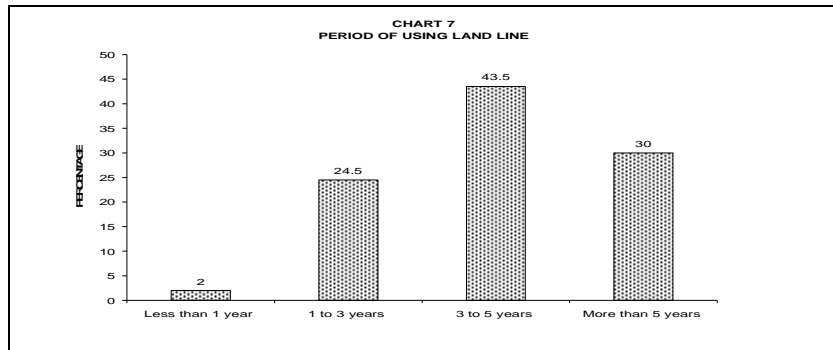


Figure 1: Period of Using Land Line

S. No.	Amount	No. of Respondents	Percentage
1.	Less than Rs.500	10	5.0
2.	Rs.501 to Rs.1000	41	20.5
3.	Rs.1001 to Rs.1500	78	39.0
4.	More than Rs.1500	71	35.5
	Total	200	100.0

Table 2: Monthly Bill Amount

From the above analysis it is stated that 5.0% of the respondents are paying their bill amount less than Rs.500 per month, 20.5% of the respondents are paying their bill amount between Rs.501 – Rs.1000 per month, 39.0% of the respondents are paying their bill amount between Rs.1001 – Rs.1500 and 35.5% of the respondents are paying their bill amount more than Rs.1500.

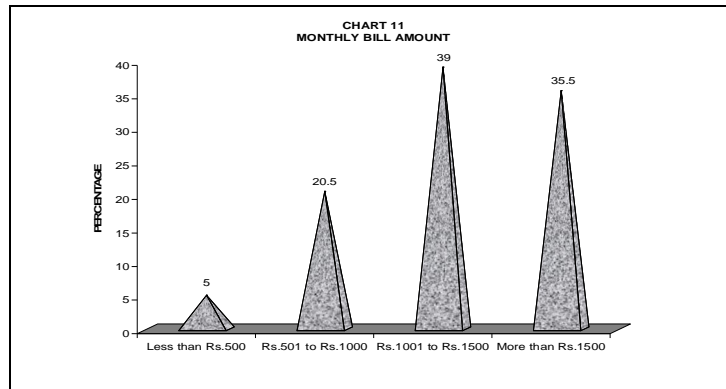


Figure 2: Monthly Bill Amount

S. No.	Opinion	No. of Respondents	Percentage
1.	Highly satisfied	73	36.5
2.	Satisfied	100	50.0
3.	Neutral	27	13.5
	Total	200	100.0

Table 3: New Phone Connection

It is identified from the above table that 50% of the respondents are satisfied in getting new phone connection after submitting their application, 36.5% of the respondents are highly satisfied in getting new phone connection, and 13.5% of the respondents are neutral towards the service of getting new phone connection provided by BSNL.

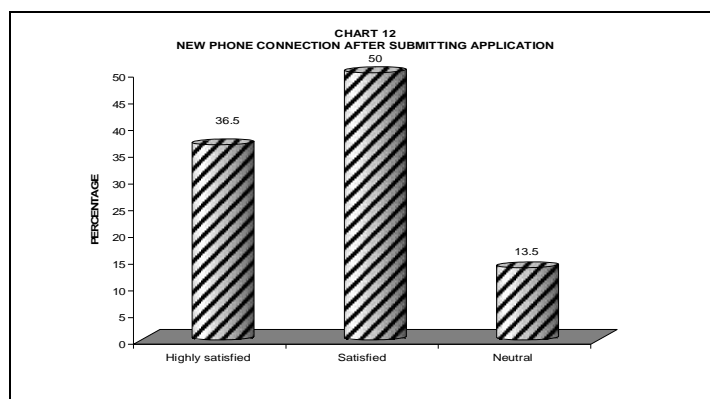


Figure 3: New Phone Connection

S. No.	Customer Service Factors	Weight age score	Rank
1.	Attitude of staff and response to their queries	902	I
2.	Providing information about the new schemes / services	778	III
3.	Transfer of phone connection	748	VI
4.	Call waiting facility	707	VII
5.	Call divert option	654	IX
6.	Caller ID facility	632	X
7.	Dynamic locking facility	691	VIII
8.	Bill collection centers	837	II
9.	Fault complaint redressal	759	IV
10.	Other general complaint redressal	752	V

Table 4: Customers Service Provided By BSNL

It is understood from the above table that the factor 'Attitude of staff and response to their queries' is the best service and it ranked first by the respondents with score of 902 points. Second and third rank goes to the factor 'Bill collection centers' and 'Providing information about the new schemes / services' with score of 837 and 778 points. Fourth and fifth rank goes to the factor 'Fault complaint redressal' and 'other general complaint redressal' with score of 759 and 752 points. Sixth and seventh rank goes to the factor 'Transfer of phone connection' and 'Call waiting facility' with score of 748 and 707 points. Eighth and ninth rank goes to the factor 'Dynamic locking facility' and 'Call divert option' with score of 691 and 654 points. Last rank goes to the factor 'Caller ID facility' with score of 632 points. It is concluded from the above analysis that maximum numbers of the respondents' are satisfied with 'Attitude of the staff and response to the queries.

4. Conclusion

From the study the influence of Demographic variable in the level of satisfaction yielded by the user as well as the Behavioural pattern of the user is analysed in this study. It is identified that the service provided by BSNL is at satisfactory level to the respondent's. But most of the respondents are not satisfied with the features of the phone. BSNL should focus on the promotional measures as equal to the private service providers to enhance their service activity to satisfy their customers.

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