

A COMPARATIVE STUDY ON SUBSCRIBERS ATTITUDE AND PERCEPTION OF BSNL AND AIRTEL SERVICES IN KANYAKUMARI DISTRICT

Dr.R.Sivanesan

*Asst. Prof. in Commerce, St.Jerome's College, Anadhanadarkudy, Nagercoil, Kanyakumari District,
Tamilnadu*

Abstract

India is the world's fastest growing industry in the world in terms of number of wireless connections after China, with 811.59 million mobile phone subscribers. According to the world telecommunications industry, India will have 1.200 billion mobile subscribers by 2013. Furthermore, projections by several leading global consultancies indicate that the total number of subscribers in India will exceed the total subscriber count in the China by 2013. First mobile telephone service on non-commercial basis started in India on 48th Independence Day at country's capital Delhi. The first cellular call was made in India on July 31st, 1995 over Modi Telstra's MobileNet GSM network of Kolkata. Later mobile telephone services are divided into multiple zones known as circles. Competition has caused prices to drop and calls across India are one of the cheapest in the world. Most of operator follows GSM mobile system operate under 900MHz bandwidth few recent players started operating under 1800MHz bandwidth. CDMA operators operate under 800Mhz band, they are first to introduce EVDO based high speed wireless data services via USB dongle.

Keywords: Attitude, Perception, Subscriber, Telecommunication, SIM,

INTRODUCTION

The word 'Communication' is derived from the Latin Word "Communis" that means Common that is sharing of ideas and views in common. In the Management context, the word communication may be described as the transmission and receipt of information on relevant organization matters between the members of departments in the organization and also between the organization and its agencies outside the organization. Communication includes social and inter personal interactions among individuals and groups in the organization. When one person transfers information and understanding to another person, communication takes places. Communication may be through words, symbols, letter or actions.

According to Koontz and O'Donnell, "Communication is a way that one organization members, shares meaning and understanding with another".

Communication take place only when there are at-least two persons namely receiver and sender. A communication must convey some messages. Communication means not only oral or written messages but also everything done to convey meanings from one

person to another. Sometimes, a message is conveyed by waving the hands, shaking the hands, moving the lips and twisting the face. There are two basic channels of communication namely, formal communication and informal communication.

The basic concept of cell phones began in 1947, when researchers looked at mobile car phones and realized that by using small cells (range of service area) with frequency reuse, they could increase the traffic capacity of mobile phones substantially. However, at that time, the technology to do so was not available. Anything to do with broadcasting and sending a radio or television message over the airwaves comes under the control of **Federal Communications Commission (FCC) Regulation** of the United States. A cell phone is a type of two-way radio. In 1947, **AT&T (American Telephone & Telegraph)** proposed that the FCC allocates a large number of radio-spectrum frequencies so that widespread mobile telephone service would become feasible and AT&T would have an incentive to research the new technology. The FCC decided to limit the number of frequencies available in 1947, the limits made only twenty-three phone conversations possible simultaneously in the same service area. AT&T and Bell Laboratories proposed a cell phone system to the FCC of many small, low-powered, broadcast towers, each covering a 'cell' a few miles in radius and collectively covering a larger area. Each tower would use only a few of the total frequencies allocated to the system. As the phones travel across the area, calls would be passed from tower to tower. (Rastogi 2003)

HISTORY OF CELL PHONE

Martin Cooper, a former general manager for the systems division at Motorola, is considered the inventor of the first modern portable handset. Bell Laboratories introduced the idea of cell phone communications in 1947 with the police car technology. However, Motorola was the first to incorporate the technology into a portable device that was designed for use outside an automobile. By 1977, AT&T and Bell Laboratories had constructed a prototype cellular system. A year later, public trials of the new system were started in Chicago with over 2000 trial customers. In 1979, in a separate venture, the first commercial cell phone system began its operation in Tokyo. In 1981, Motorola and American Radio Telephone started a second U.S. cell phone radio-telephone system test in the Washington/Baltimore area. By 1982, the slow-moving FCC finally authorized commercial cellular service for USA. A year later, the first American

commercial analog cell phone service or AMPS (Advanced Mobile Phone Service) was made available in Chicago by Ameritech. Despite the incredible demand, it took 37 years for cell phone services to become commercially available in the United States. Consumer demand quickly outstripped the 1982 system standards. By 1987, cell phone subscribers exceeded one million and the airways were crowded. (COAI 2005).

MOBILE PHONE (CELLULAR COMMUNICATION TECHNOLOGY)

Mobile phone means using a number of short range radio signals to cover the area that it serves, the signal being automatically switched from one station to another as the user travels about. Mobile phone is also known as cellular phone.

Mobile phones link us together while people are apart. Mobile phone joins in virtual communication, worker with work places, children with parents, lovers with lovers, friends with friends and families with each other. The mobile phone is a significant object it is a guarantee of connection in the dislocated social work of modernity, a world in which as Anthony Giddens points out people increasingly make ourselves available to others at a distance.

Cellular technology uses frequency modulation (FM) radio waves to transmit and receive signals. This technology was developed by AT & T in the 80s and is based on grid of hexagons or cell that covers specific geographical areas. In the cellular system the most common and simple application of this technology, which we are familiar with is a cordless telephone.

Development of cellular system had been taking place in the United States, through the inter connection of mobile radio transmitters and receivers with public switched telephone Networks (PSTN). In 1946, with the introduction of Mobile Telephone services (MTS) by AT & T (American Telephone and Telegraph Company).

At present there are different types of mobile phone service. Providers in Kanayakumari District namely, BSNL, AIRTEL, AIRCEL, RELIANCE, TATADOMOCO, VODAFONE this encourages for an investigation on the customer's satisfaction level given by each service provider.

This topic is one of can temporary relevance and its utilisation significance may help to great extent. It will help the customers to cultivate a dynamic communication culture suited to the modern sophisticated society. This renders everything absolute within a short span of time. The mobile technology has reduced communication gab and has well bridged even when we are out of station.

BSNL, AIRTEL, AIRCEL, RELIANCE, TATADOMOCO and VODAFONE are competing with each other to usher a cornucopia of mobile facilities to

satisfy the mobile mania of the people of Kanyakumari District. However they will soon begin to appreciate the various features of their mobile telephones. They can virtually use it as their pocket office.

STATEMENT OF THE PROBLEM

Due to the latest development of technology the marketers are facing new challenges and opportunities. Now-a-days human society is mostly depending on the use of telecommunication especially mobile which is used by all categories of people. The telecommunication is a fascinating set of interactions between the scientists and Government technologists business who brought together the tools of their day to day business.

The cellular telephones are the best communication system. The demand for mobile phones have sky rocked. During 1988 the cellular Telecommunication Industry Association (CTTA) established a set of user performance requirements (UPR) which state the need for a digital cellular telephone system. The UPR expressed the need for better voice and service, quality, greager flexibility and privacy and higher speed data transmission capabilities. Due to the development of mobile service helps for business and other communications. The present stud is made about “A Comparative Study on Subscribers Attitude and Perception of BSNL and AIRTEL services in Kanyakumari District”

OBJECTIVES OF THE STUDY

The following are the objectives of the present study

- To study the various services provided by BSNL and AIRTEL
- To analyse the problems faced by BSNL and AIRTEL subscribers in Kanyakumari District.
- To analyse the attitude and perception of BSNL and AIRTEL subscribers in Kanyakumari District.

HYPOTHESES OF THE STUDY

The following are the hypotheses framed by the researcher for the present study.

H1 = There is no significant difference between age of the BSNL subscribers and level of satisfaction of BSNL subscribers.

H2 = There no significant difference between age of the AIRTEL subscribers and level of satisfaction of AIRTEL subscribers

H3 = There is no significant difference between occupation of the BSNL subscribers and level of satisfaction of BSNL subscribers.

H4 = There no significant difference between occupation of the AIRTEL subscribers and level of satisfaction of AIRTEL subscribers

H5 = There is no significant difference between Education of the BSNL subscribers and level of satisfaction of BSNL subscribers.

H6 = There no significant difference between Education of the AIRTEL subscribers and level of satisfaction of AIRTEL subscribers.

METHODOLOGY

This study is based on both primary and secondary data.

The data which is collected in a fresh manner and which is not available is termed as primary data. For the purpose of collecting primary data the researchers have carefully designed an interview schedule presented the same and administrated it to the sample respondents in Kanyakumari District.

The prevailing data is termed as the secondary data. Secondary data were collected from books, journals, magazines, websites and BSNL and AIRTEL office in Kanyakumari District.

SAMPLING DESIGN

Since the objectives of the study is to find out subscribers attitude and perception of BSNL and AIRTEL services the researchers have adopted Convenient sampling technique for data collection. The researchers have taken 200 samples, 100 from BSNL subscribers and 100 from AIRTEL subscribers in Kanyakumari District.

FRAMEWORK OF ANALYSIS

The collection of data are analysed with the help of proper statistical tools like percentage analysis, Likert scaling techniques, Garrett Tanking Technique and hypotheses analysis.

ANALYSIS OF THE STUDY

This part indicates the analysis of the attitude and perception of BSNL and AIRTEL subscribers.

Age of the Respondents

Age is the important factor to determine attitude and perception of cell phone services. The following table indicates the age-wise classification of the sample respondents.

Table 1
Age of the Respondents

AGE	BSNL		AIRTEL		TOTAL	
	No.	Per.	No.	Per.	No.	Per.
Below 20	05	05	25	25	30	15.00
20 – 30	15	15	50	50	65	32.50

30 -40	50	50	15	15	65	32.50
40 -50	20	20	08	08	28	14.00
Above 50	10	10	02	02	12	06.00
Total	100	100	100	100	200	100

Source: Primary data

It is clear from Table 1 that, among the BSNL respondents, 50 respondents (50 percent) are in the age group 30 to 40 years, 20 respondents (20 percent) are in the age group 40 to 50 years, 15 respondents (15 percent) are in the age group 20 to 30 years, 10 respondents (10 percent) are in the age group above 50 and only five respondents (5 percent) are in the age group below 20 years

Among the AIRTEL respondents, 50 respondents (50 percent) are in the age group 20 to 30 years, 25 respondents (25 percent) are in the age group below 20 years, 15 respondents (15 percent) are in the age group 30 to 40 years, Eight respondents (8 percent) are in the age group 40 to 50 years and only two respondents (2 percent) are in the age group above 50 years.

Among the total respondents, 130 respondents (35 percent) are in the age group 20 to 40 years.

Education of the Respondents

Education is the important factor to determine the attitude and perception of mobile phone users. Education of selected BSNL and AIRTEL respondents are presented in Table 2.

Table 2
Education of the Respondents

EDUCATION	BSNL		AIRTEL		TOTAL	
	No.	Per.	No.	Per.	No.	Per.
Illiterate	05	05	20	20	25	12.50
1 st to 12 th Standard	15	15	25	25	40	20.00
Degree	35	35	35	35	70	35.00
P.G.Degree	25	25	15	15	40	20.00
Professional	20	20	05	05	25	12.50
Total	100	100	100	100	200	100

Source: Primary data

It is clear from Table 2 that, among the BSNL subscribers, 35 respondents (35 percent) are qualified with Degree, 25 respondents (25 percent) are qualified with P.G Degree, 20 respondents (20 percent) are qualified with Professional Degree and 15 respondents (15 percent) are qualified with +2.

Among the Airtel respondents, 35 respondents (35 percent) are qualified with degree, 25 respondents (25 percent) are qualified with up-to +2, 20 respondents (20 percent) are illiterate, 15 respondents (15 percent) are qualified with P.G. Degree and only five respondents (5 percent) are qualified with professional courses.

Among the total respondents, 70 subscribers (35 percent) are qualified with Degree.

Occupation of the Respondents

Occupation is the important factor to select the mobile phone service provider. The occupations of the selected subscribers are classified in the Table 3.

Table 3

Occupation of the Respondents

OCCUPATION	BSNL		AIRTEL		TOTAL	
	No.	Per.	No.	Per.	No.	Per.
Govt. Employee	35	35	08	08	43	21.50
Private Employee	30	30	20	20	50	25.00
Businessmen	15	15	35	35	50	25.00
Dependent	15	15	25	25	45	22.50
Former/Cooli	05	05	12	12	17	08.50
Total	100	100	100	100	200	100

Source: Primary data

It is clear from Table 3 that, among the BSNL subscribers, 35 subscribers (35 percent) are Government employee, 30 subscribers (30 percent) are private employee, 15 subscribers (15 percent) are businessmen, another 15 subscribers (15 percent) are dependent and only five subscribers (05 percent) are former and cooli.

Among the Airtel subscribers, 35 subscribers (35 percent) are businessmen, 25 subscribers (25 percent) are dependent like college, school student and wife, 20 subscribers (20 percent) are private employee, 12 subscribers (12 percent) are former and cooli and only eight subscribers (8 percent) are Government employee.

Among the total subscribers, majority of subscribers are businessmen and private employee.

Gender of the Respondents

Gender is one of the important social factor which influence purchase behaviour towards a particular brand. The Gender of the selected subscribers are presented in Table 4.

Table 4

Gender of the Respondents

GENDER	BSNL		AIRTEL		TOTAL	
	No.	Per.	No.	Per.	No.	Per.
Male	58	58	54	54	112	56.00
Female	42	42	46	46	88	44.00
Total	100	100	100	100	200	100

Source: Primary data

It is clear from Table 4 that, among the BSNL subscribers, 58 subscribers (58 percent) are Male and 42 subscribers (42 percent) are female.

Among the AIRTEL subscribers, 54 subscribers (54 percent) are Male and the remaining 46 subscribers (46 percent) are female.

Among the total selected subscribers, 112 subscribers (56 percent) are male and the remaining 88 subscribers (44 percent) are female.

Marital status of the Respondents

Another important factor to determine the attitude and perception of cell phone subscriber is marital status. Marital statuses of the selected subscribers are presented in Table 5.

Table 5

Marital Status of the Respondents

MARITAL STATUS	BSNL		AIRTEL		TOTAL	
	No.	Per.	No.	Per.	No.	Per.
Married	72	72	32	32	104	52.00
Un-Married	28	28	68	68	96	48.00
Total	100	100	100	100	200	100

Source: Primary data

It is clear from Table 5 that, among the BSNL subscribers, 72 subscribers (72 percent) are married and the remaining 28 subscribers (28 percent) are un-married.

Among the AIRTEL subscribers, 68 subscribers (68 percent) are un-married and only 32 subscribers (32 percent) are married.

Among the total subscribers, 104 subscribers (52 percent) are married and 96 subscribers (48 percent) are un-married.

Family Income of the Respondents

The family income is the summation of the personal income earned by all independent family members living along with the respondents. The monthly family incomes of the selected subscribers are presented in Table 6.

Table 6

Monthly Family Income of the Respondents

FAMILY INCOME	BSNL		AIRTEL		TOTAL	
	No.	Per.	No.	Per.	No.	Per.
Below 3000	04	04	10	10	14	07.00
3000 - 6000	10	10	23	23	33	16.50
6000 - 9000	16	16	51	51	67	33.50
9000 - 12000	32	32	09	09	41	20.50
Above 12000	38	38	07	07	45	22.50
Total	100	100	100	100	200	100

Source: Primary data

It is clear from Table 6 that, among the BSNL subscribers, 38 subscribers (38 percent) earned above Rs.12000, 32 subscribers (32 percent) earned Rs.9000 to Rs.12000, 16 subscribers (16 percent) earned Rs.6000 to Rs.9000, 10 subscribers (10 percent) earned Rs.3000 to Rs.6000 and only four subscribers (4 percent) earned below Rs.3000.

Among the AIRTEL subscribers, 51 subscribers (51 percent) earned Rs.6000 to Rs.9000, 23 subscribers (23 percent) earned Rs.3000 to Rs.6000, 10 subscribers (10 percent) earned below Rs.3000, nine subscribers (9 percent) earned Rs.9000 to Rs.12000 and only seven subscribers (7 percent) earned above Rs.12000.

Among the total subscribers, majority of the selected subscribers earned Rs.6000 to Rs.9000 per month.

Period of Using BSNL and AIRTEL

Period of usage reveals the brand loyalty. The period of using BSNL and AIRTEL subscribers are presented in Table 7.

Table 7
PERIOD OF USING BSNL AND AIRTEL

PERIOD	BSNL		AIRTEL		TOTAL	
	No.	Per.	No	Per.	No.	Per.
Less than One Year	09	09	25	25	34	17.00
One to 2 Years	26	26	47	47	73	36.50
2 to 4 Years	41	41	26	26	67	33.50
4 to 6 Years	14	14	02	02	16	08.00
Above 6 Years	10	10	00	00	10	05.00
Total	100	100	100	100	200	100

Source: Primary data

It is clear from Table 7 that, among the BSNL subscribers, 41 subscribers (41 percent) are using the BSNL services two to four years, 26 subscribers (26 percent) are using the BSNL services one to two years, 14 subscribers (14 percent) are using the BSNL services four to six years, ten subscribers (10 percent) are using above 6 years and only nine subscribers (9 percent) are using the BSNL services below one years.

Among the AIRTEL subscribers, 47 subscribers (47 percent) are using the present service provider one to two years, 26 subscribers (26 percent) using the present service provider two to four years, 25 subscribers (25 percent) are using the present service provider below one year and only two subscribers (2 percent) are using the present service provider four to six years.

Among the total subscribers majority of subscribers are using the present service provider one to Two years.

Opinion about Services offered by BSNL

BSNL offer various services to the subscribers. It is analysed with the help of Likert Scaling Technique is as follows

Table 8
OPINION ABOUT SERVICES OFFERED BY BSNL

Facilities	Opinion (No. (Weight))					Total	
	Excellent	Very Good	Good	Mod erate	Poor	No. (Weight)	Ran k
E-Mail	02 (10)	08 (32)	30 (090)	33 (66)	27 (27)	100 (225)	IX
WEB	06 (30)	12 (48)	35 (105)	31 (62)	16 (16)	100 (261)	V
Value Added Pack	02 (10)	07 (28)	30 (090)	40 (80)	21 (21)	100 (229)	VIII
WLAN	05 (25)	08 (32)	45 (135)	28 (56)	14 (14)	100 (262)	IV
Internet Call	12 (60)	18 (72)	32 (096)	32 (64)	06 (06)	100 (298)	I
Online	03 (15)	10 (40)	35 (105)	26 (52)	26 (26)	100 (238)	VII

Facebook	10 (50)	12 (48)	28 (084)	25 (50)	25 (25)	100 (257)	VI
Audio/Video tunes	12 (60)	16 (64)	34 (102)	26 (52)	12 (12)	100 (290)	II
Call Charges	15 (75)	12 (48)	35 (105)	20 (40)	18 (18)	100 (286)	III
SMS Charges	00 (00)	01 (04)	12 (036)	21 (42)	66 (66)	100 (148)	X

Source: Primary and Calculated data

It is clear from Table 8 that, first rank (Total Score 298) has been attained by Internet call so majority of BSNL subscriber are highly satisfied with internet call service provided by BSNL, Second rank (Total Score 290) has been attained by Audio/Video tune service provided by BSNL, third rank (Total Score 286) has been attained by Call charges service, fourth rank (total score 262) has been attained by WLAN service provided by BSNL, fifth rank (total score 261) has been attained by WEB service provided by BSNL and last rank (Total score 148) has been attained by sms charges so BSNL subscribers highly dis-satisfied with sms facility provided by BSNL.

It is clearly that majority of BSNL subscribers highly satisfied with internet call service and highly dis-satisfied with sms service.

Opinion about Services offered by AIRTEL

AIRTEL offer various services to the subscribers. It is analysed with the help of Likert Scaling Technique is as follows

Table 8.1
OPINION ABOUT SERVICES OFFERED BY AIRTEL

Facilities	Opinion (No. (Weight))					Total	
	Excellent	Very Good	Good	Mod erate	Poor	No. (Weight)	Ran k
E-Mail	15 (75)	16 (64)	33 (099)	30 (60)	06 (06)	100 (304)	IV
WEB	15 (75)	17 (68)	38 (114)	30 (60)	00 (00)	100 (317)	II
Value Added Pack	05(25)	10 (40)	35 (105)	28 (56)	22 (22)	100 (248)	VII
WLAN	01 (05)	03 (12)	08 (024)	40 (80)	48 (48)	100 (169)	X
Internet Call	05 (25)	10 (40)	22 (066)	35 (70)	28 (28)	100 (229)	IX
Online	14 (70)	15 (60)	31 (093)	30 (60)	10 (10)	100 (293)	V
Facebook	16 (80)	16 (64)	36 (108)	28 (56)	04 (04)	100 (312)	III
Audio/Video tunes	08 (40)	10 (40)	35 (105)	30 (60)	17 (17)	100 (262)	VI
Call Charges	06 (30)	08 (32)	22 (066)	36 (72)	28 (28)	100 (228)	VIII
SMS Charges	18 (90)	20 (80)	30 (090)	30 (60)	02 (02)	100 (322)	I

Source: Primary and Calculated data

It is clear from Table 8.1 that, first rank (total score 322) has been attained by sms service provided by AIRTEL so majority of AIRTEL subscribers are highly satisfied with sms facility, second rank (total score 248) has been attained by WEB service, third rank (312) has been attained by Facebook service, fourth rank (total score 304) has been attained by E-Mail service, fifth rank (total score 293) has been attained by online service and last rank (total score 169) has been attained by WLAN service provided by AIRTEL.

It is clear that majority of AIRTEL subscribers highly satisfied with sms services and highly dis-satisfied with WLAN serviced offered by AIRTEL.

OPINION ABOUT PROBLEMS FACED BY THE SUBSCRIBERS IN BSNL AND AIRTEL

Now-a-days mobile phone users face lot of problems. The present study analyse the BSNL and AIRTEL subscribers problem with the help of Garrett Ranking Techniques as follows.

**Table 9
OPINION ABOUT PROBLEMS FACED BY THE SUBSCRIBERS IN BSNL AND AIRTEL**

Problems	BSNL		AIRTEL	
	Avg. Score (Garrett Mean Score)	Rank	Avg. Score (Garrett Mean Score)	Rank
Poor Call Centre service	56.25	I	50.96	X
No Network Coverage rural area	44.75	IX	61.88	II
High SMS charges	55.12	II	51.02	IX
High WEB Charges	45.01	VIII	54.55	VIII
Un-necessary charge through Value added pack	50.23	IV	54.89	VII
Call disturbance	49.88	V	55.01	VI
High Call Charges	46.22	VII	55.25	V
Poor Plan Voucher	47.20	VI	58.21	IV
Delay in SIM Activation	44.32	X	62.01	I
Poor Network Coverage	53.55	III	60.25	III

Source: Calculated data

It is clear from Table 9 that, among the BSNL subscribers, majority of subscribers (Avg. Score 56.25) face the problem of poor call centre service, second rank (Avg. Score 55.12) has been attained by very high sms charges, third rank (Avg. Score 53.55) has been attained by poor network coverage, fourth rank (Avg. Score 50.23) has been attained by un-necessary charge through value added pack, fifth rank (Avg. Score 49.88) has been attained by call disturbance, sixth rank (Avg. Score 47.20) has been attained by poor plan voucher and last rank (Avg. Score 44.32) has been attained by delay in SIM activation.

Among the AIRTEL subscribers, majority of subscribers (Avg. Score 62.01) face the problem of delay in SIM activation, second rank (Avg. Score 61.88) has been attained by no network coverage in rural area, third rank (Avg. Score 60.25) has been attained by poor network coverage, fourth rank (Avg. Score 58.21) has been attained by poor plan voucher, fifth rank (Avg. Score 55.25) has been attained by high call charges, sixth rank (Avg. Score 55.01) has been attained by call disturbance and last rank

(Avg. score 50.96) has been attained by poor call centre service.

Level of Satisfaction of BSNL and AIRTEL subscribers

Level of satisfaction of BSNL and AIRTEL subscribers are presented in Table 10.

**Table 10
LEVEL OF SATISFACTION OF BSNL AND AIRTEL SUBSCRIBERS**

FAMILY INCOME	BSNL		AIRTEL		TOTAL	
	No.	Per.	No.	Per.	No.	Per.
Very High	07	07	18	18	25	12.50
High	13	13	26	26	39	19.50
Moderate	45	45	35	35	80	40.00
Low	30	30	20	20	50	25.00
Very Low	05	05	01	01	06	03.00
Total	100	100	100	100	200	100

Source: Primary data

It is clear from Table 10 that, among the BSNL subscribers, 45 subscribers (45 percent) are having medium level satisfaction, 30 subscribers (30 percent) are having low level satisfaction, 13 subscribers (13 percent) are having high level satisfaction and only five subscribers (5 percent) are having very low level satisfaction.

Among the AIRTEL subscribers, 35 subscribers (35 percent) are having medium level satisfaction, 26 subscribers (26 percent) are having high level satisfaction, 20 subscribers (20 percent) are having low level satisfaction and 18 subscribers (18 percent) are having very high level satisfaction.

Among the total subscribers, majority of subscribers are having medium level satisfaction.

ANALYSIS OF HYPOTHESES

The primary data were collected from the respondents tabulated for analysis and interpretation. The data analysed and interpreted are tested by using the chi-square test.

The chi-square test is applied in statistics to test the goodness of fitness to verify the distribution of observed data with assumed theoretical distribution. It is defined as

$$\chi^2 = \frac{\sum(O-E)^2}{E}$$

Where

O= Observed frequency

E= Expected frequency

In the present study the researchers frame three hypotheses to test the goodness of fitness. In this regard the following hypotheses are framed:

H1 = There is no significant difference between age of the BSNL subscribers and level of satisfaction of BSNL subscribers.

H2 = There no significant difference between age of the AIRTEL subscribers and level of satisfaction of AIRTEL subscribers

H3 = There is no significant difference between occupation of the BSNL subscribers and level of satisfaction of BSNL subscribers.

H4 = There no significant difference between occupation of the AIRTEL subscribers and level of satisfaction of AIRTEL subscribers

H5 = There is no significant difference between Education of the BSNL subscribers and level of satisfaction of BSNL subscribers.

H6 = There no significant difference between Education of the AIRTEL subscribers and level of satisfaction of AIRTEL subscribers

I. H1 = There is no significant difference between age of the BSNL subscribers and level of satisfaction of BSNL subscribers.

The age of BSNL subscribers and Level of satisfaction are analyzed with the help of chi-square (χ^2) test which is represented as follows.

Age (Years)	Level of satisfaction			Total
	High	Medium	Low	
Below 30	05	10	05	20
30 – 40	10	25	15	50
Above 40	05	10	15	30
Total	20	45	35	100

COMPUTATION OF CHI-SQUARE VALUE

O	E	(O-E)	(O-E) ²	$\sum \frac{(O-E)^2}{E}$
05	04.00	01.00	01.00	00.2500
10	10.00	00.00	00.00	00.0000
05	06.00	-01.00	01.00	00.1666
10	09.00	01.00	01.00	00.1111
25	22.50	02.50	06.25	00.2777
10	13.50	-03.50	12.25	00.9074
05	07.00	-02.00	04.00	00.5714
15	17.50	-02.50	06.25	00.3571
15	10.50	04.50	20.25	01.9285
Total				04.5698

Calculated value = 04.5698

D.F. = (c-1) (r-1)
= (3-1) (3-1) = 2 * 2 = 4

Table value of chi-square at 5% level of significance (4 d.f) = 9.49

Result

The calculated value is less than the table value, so we accept the null hypothesis. Thus there is no significant difference between age of the BSNL subscribers and level of satisfaction.

II. H1 = There is no significant difference between age of the AIRTEL subscribers and level of satisfaction of AIRTEL subscribers.

The age of AIRTEL subscribers and Level of satisfaction are analyzed with the help of chi-square (χ^2) test which is represented as follows.

Age (Years)	Level of satisfaction			Total
	High	Medium	Low	
Below 30	34	24	17	75
30 – 40	07	06	02	15
Above 40	03	05	02	10
Total	44	35	21	100

COMPUTATION OF CHI-SQUARE VALUE

O	E	(O-E)	(O-E) ²	$\sum \frac{(O-E)^2}{E}$
34	33.00	01.00	01.0000	00.03030
07	06.60	00.40	00.1600	00.02424
03	04.40	-01.40	01.9600	00.44545
24	26.25	-02.25	05.0625	00.19285
06	05.25	00.75	00.5625	00.10710
05	03.50	01.50	02.2500	00.64285
17	15.75	01.25	01.5625	00.09920
02	03.15	-01.15	01.3225	00.41984
02	02.10	-00.10	00.0100	00.00476
Total				01.970794

Calculated value = 01.970794

D.F. = (c-1) (r-1)
= (3-1) (3-1) = 2 * 2 = 4

Table value of chi-square at 5% level of significance (4 d.f) = 9.49

Result

The calculated value is less than the table value, so we accept the null hypothesis. Thus there is no significant difference between age of the AIRTEL subscribers and level of satisfaction.

III. H3 = There is no significant difference between occupation of the BSNL subscribers and level of satisfaction of BSNL subscribers.

The Occupation of BSNL subscribers and Level of satisfaction are analyzed with the help of chi-square (χ^2) test which is represented as follows.

Occupation	Level of satisfaction			Total
	High	Medium	Low	
Govt./Private Employee	12	28	25	65
Businessmen	02	06	07	15
Former/Dependent	06	11	03	20
Total	20	45	35	100

COMPUTATION OF CHI-SQUARE VALUE

O	E	(O-E)	(O-E) ²	$\sum \frac{(O-E)^2}{E}$
12	13.00	-01.00	01.0000	00.0769
02	03.00	-01.00	01.0000	00.3333
06	04.00	02.00	04.0000	01.0000
28	29.25	-01.25	01.5625	00.0534
06	06.75	-00.75	00.5625	00.0833
11	09.00	02.00	04.0000	00.4444
25	22.75	02.25	05.0625	00.2225
07	05.25	01.75	03.0625	00.5833
03	07.00	04.00	16.0000	02.2857
Total				05.0828

Calculated value = 05.0828

$$D.F. = (c-1)(r-1)$$

$$= (3-1)(3-1) = 2 * 2 = 4$$

Table value of chi-square at 5% level of significance (4 d.f) = 9.49

Result

The calculated value is less than the table value, so we accept the null hypothesis. Thus there is no significant difference between occupation of the BSNL subscribers and level of satisfaction.

IV. H3 = There is no significant difference between occupation of the AIRTEL subscribers and level of satisfaction of AIRTEL subscribers.

The Occupation of AIRTEL subscribers and Level of satisfaction are analyzed with the help of chi-square (χ^2) test which is represented as follows.

Occupation	Level of satisfaction			Total
	High	Medium	Low	
Govt./Private Employee	10	08	10	28
Businessmen	15	12	08	35
Former/Dependent	19	15	03	37
Total	44	35	21	100

COMPUTATION OF CHI-SQUARE VALUE

O	E	(O-E)	(O-E) ²	$\sum \frac{(O-E)^2}{E}$
10	12.32	-02.32	05.3824	00.4368
15	15.40	-00.40	00.1600	00.0103
19	16.28	02.72	07.3984	00.4544
08	09.80	-01.80	03.2400	00.3306
12	12.25	-00.25	00.0625	00.0050
15	12.95	02.05	04.2025	00.3245
10	05.88	04.12	16.9744	02.8868
08	07.35	00.65	00.4225	00.0574
03	07.77	-04.77	22.7529	02.9283
Total				07.4540

Calculated value = 07.4540

$$D.F. = (c-1)(r-1)$$

$$= (3-1)(3-1) = 2 * 2 = 4$$

Table value of chi-square at 5% level of significance (4 d.f) = 9.49

Result

The calculated value is less than the table value, so we accept the null hypothesis. Thus there is no significant difference between occupation of the AIRTEL subscribers and level of satisfaction.

V. There is no significant difference between Education of the BSNL subscribers and level of satisfaction of BSNL subscribers.

The Education of BSNL subscribers and Level of satisfaction are analyzed with the help of chi-square (χ^2) test which is represented as follows.

Education	Level of satisfaction			Total
	High	Medium	Low	
Up-to +2	04	10	06	20
Degree	06	16	13	35
P.G./Professional	10	19	16	45
Total	20	45	35	100

COMPUTATION OF CHI-SQUARE VALUE

O	E	(O-E)	(O-E) ²	$\sum \frac{(O-E)^2}{E}$
04	04.00	00.00	00.0000	00.0000
06	07.00	-01.00	01.0000	00.1428
10	09.00	01.00	01.0000	00.1111
10	09.00	01.00	01.0000	00.1111
16	15.75	00.25	00.0625	00.0039
19	20.25	-01.25	01.5625	00.0772
06	07.00	-01.00	01.0000	00.1428
13	12.25	00.75	00.5625	00.0459
16	15.75	00.25	00.0625	00.0039
Total				0.6387

Calculated value = 0.6387

$$D.F. = (c-1)(r-1)$$

$$= (3-1)(3-1) = 2 * 2 = 4$$

Table value of chi-square at 5% level of significance (4 d.f) = 9.49

Result

The calculated value is less than the table value, so we accept the null hypothesis. Thus there is no significant difference between educational of BSNL subscribers and level of satisfaction.

VI. There is no significant difference between Education of the AIRTEL subscribers and level of satisfaction of AIRTEL subscribers.

The Education of BSNL subscribers and Level of satisfaction are analyzed with the help of chi-square (χ^2) test which is represented as follows.

Education	Level of satisfaction			Total
	High	Medium	Low	
Up-to +2	21	17	07	45
Degree	15	12	08	35
P.G./Professional	08	06	06	20
Total	44	35	21	100

COMPUTATION OF CHI-SQUARE VALUE

O	E	(O-E)	(O-E) ²	$\sum \frac{(O-E)^2}{E}$
21	19.80	01.20	01.44	00.0727
15	15.40	-00.40	00.16	00.0103
08	08.80	-00.80	00.64	00.0727
17	15.75	01.25	01.56	00.0990
12	12.25	-00.25	00.06	00.0048
06	07.00	-01.00	01.00	00.1428
07	09.45	-02.45	06.00	00.6349
08	07.35	00.65	00.42	00.0571
06	04.20	01.80	03.24	00.7714
Total				01.865

Calculated value = 1.865

$$D.F. = (c-1)(r-1) = (3-1)(3-1) = 2 * 2 = 4$$

Table value of chi-square at 5% level of significance (4 d.f) = 9.49

Result

The calculated value is less than the table value, so we accept the null hypothesis. Thus there is no significant difference between education of the AIRTEL subscribers and level of satisfaction.

FINDINGS OF THE STUDY

The following are the important findings of the study.

The researcher found majority of BSNL subscribers are in the age group lies between 30 to 40 years and majority of AIRTEL subscribers are in the age group lies between 20 to 30 years. Majority of BSNL and AIRTEL subscribers are married. Majority of BSNL and AIRTEL subscribers are qualified with degree. The study found that majority of BSNL subscribers are Govt. employee and majority of AIRTEL subscribers are businessmen. It was also found that majority of BSNL and AIRTEL subscribers are male. The researcher also found that majority of BSNL subscribers earned above RS.12000 per month and majority of AIRTEL subscribers earned Rs.6000 to Rs.9000 per month. Majority of BSNL subscribers are using the BSNL services two to four years

and majority of AIRTEL subscribers are using the present service provider one to two years. Majority of BSNL subscriber are highly satisfied with Internet call, call charges and WLAN service provided by BSNL but they are highly un-satisfied with sms charges and majority of AIRTEL subscribers are highly satisfied with call centre service, WEB and sms service provided by AIRTEL but they are highly un-satisfied with WLAN service. Lot of BSNL subscribers are facing poor call centre response and high sms charges and lot of AIRTEL subscribers facing delay in SIM activation.

SUGGESTIONS OF THE STUDY

The researcher gives following important suggestion.

Only very few youngsters are using BSNL services so the BSNL can introduce some attractive schemes for capturing the young customers and only very few age persons are using AIRTEL services so the AIRTEL service provider may take proper steps to capture old age customers. Both BSNL and AIRTEL service provider may introduce some attractive schemes for women, students, working group people. Some areas in Kanyakumari District the AIRTEL coverage very poor, so the proper steps to be taken by AIRTEL for fulfilling the coverage in all areas of Kanyakumari District. BSNL and AIRTEL are high roaming charge, so the roaming charges to be reduced for the convenience of the customers. BSNL customers are facing un-necessary charges through value added pack so BSNL may take necessary steps to avoid this problem. Sometimes the BSNL coverage is very poor and BSNL call centre employees are not responding the problems of customers so BSNL may concentrate these problems. Most of the mobile customers are using prepaid service, so the mobile service provider can be introduce some attractive post-paid scheme for capture new post-paid customers and retaining the existing post-paid customers. Overall the AIRTEL customers are highly satisfied with their service provider but the BSNL customers facing some problems so BSNL must take the necessary steps to avoid the problems of customers to their improvement.

CONCLUSION

The study is “A comparative analysis of Attitude and Perception of BSNL and AIRTEL subscribers in Kanyakumari District”, for this study the researcher concludes that most of the respondents are using BSNL and AIRTEL. All the respondents need the sms free service and they want to reduce call rate. Now-a-days most of the people are using mobile phones; mobile phones are the gift of advance information technology. The up-ward trend in the mobile telephone introduces the multinational to come int the field. The main aim of this serviced provider is provide in metropolitan cities as well as in small villages at lower tariffs.

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Author Profile:

Dr.R.Sivanesan is working Assistant Professor, Department of Commerce, St.Jerome’s College, Nagercoil. He has more than 6 years of experience in teaching. He is specialist in the area of marketing and finance. He was published more than 8 international articles in various journals.