CUSTOMER SURVEY ON FORTHCOMING 3G TECHNOLOGY AND SERVICE AMONG NON BSNL USERS IN TIRUPUR

A PROJECT REPORT

Submitted by

GAYATHREE.S.S

Reg. No. 0820400009

In partial fulfilment of the requirements

for the award of the degree

Of

MASTER OF BUSINESS ADMINISTRATION

AUGUST, 2009

KCT Business School

Department of Management Studies

Kumaraguru College of Technology

(An autonomous institution affiliated to Anna University, Coimbatore)

Coimbatore – 641 006

DEPARTMENT OF MANAGEMENT
KUMARAGURU COLLEGE OF TECHNOLOGY
(An ISO 9001:2000 Certified Institution)
Coimbatore -641006

BONAFIDE CERTIFICATE

Certified that this project titled 'CUSTOMER SURVEY ON FORTHCOMING 3G TECHNOLOGY AND SERVICES AMONG NON BSNL USERS IN TIRUPUR "the bonafide work of MS.GAYATHREE.S.S(0820400009), who carried out this research under my supervision. Certified further ,that to the best of my knowledge the work reported herein does not form part of any other project report or desertion on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Project Guide

Director

Evaluated and viva-voce held on....11/9/2009

11/9/09

Examiner-I

Examiner II

भारत संचार निगम लिमिटेड
(भारत सरकार का उद्यम)
Bharat Sanchar Nigam Limited
(A Govt. of India Enterprise)

Marketing Cell, Saibaba Colony Telephone Exchange, Coimbatore-641 011

Mktg/Project/2009-10/ dated @ Coimbatore the 30/6/2009

CERTIFICATE

Certified that Sri/Smt. S.S. GAYATHREE - 08MBA09

is entrusted with the project work on behalf of BSNL & Kumaraguru College of Technology, Coimbatore Combined Survey on "3G Services"

सहायक महाप्रबंधक (विपणन)
Asst. General Manager (Marketing)
भा.सं.नि.लि. BSNL
Saibaba Telephone Exchange Building
1st Floor, Coimbatore - 641 011

DECLARATION

I ,hereby declare that this project report entitled as "CUSTOMER SURVEY ON FORTHCOMING 3G TECHNOLOGY AND SERVICES AMONG NON BSNL USERS IN TIRUPUR" ,has undertaken for academic purpose submitted to Anna university in partial fulfillment of requirement for the award of the degree of Master of Business Administration .The project report is the record of the original work done by me under the guidance of Mr. during the academic year 2008-2010

I, also declare hereby, that the information given in this report is correct to the best of my knowledge and belief.

Place:

Coimbatore

Date: 11/9/09

S.S.Gri

....

(GAYATHREE.S.S)

ACKNOWLEDGEMENT

I am very thankful to my guide Mr.V.Kaarthiekheyan M.com,MBA KCT Business school,coimbatore for his valuable guidance. I would like to thank all the staff members of the Department of Management studies for their help and support.

I express my sincere gratitude to our revered chairman Arutselvar Dr.N.Mahalingam, Our co-chairman B.K Krishnaraj vanavarayar , Correspondent Sri.M.Balasubramaniam , our principal – in-charge Prof.M.Annamalai,for giving me this opportunity to gather experience of doing a project at a corporate.

I would like to thank Dr.S.V.Devanathan ,Ph.D,Director,KCT Business school, Department of management studies for the help and guidance rendered.

EXECUTIVE SUMMARY

This project work is about "customer survey on forthcoming 3g technology and service among non Bsnl users in Tirupur" the project is under taken to study the perception of the consumer towards certain 3G technology and services.

The pilot survey was done by taking 20 samples. Survey on 100 customers was taken and the necessary data was collected by distributing questionnaires among them. Analysis of the data is done by using percentage analysis, chi square test.
The project is centred on the different opinions of the customer on existing service and the future anticipation.

The study helps to know the market potential for the launch of 3G technology and services by BSNL at Tirupur with reference to non BSNL users.

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BACKGROUND OF THE STUDY

Marketing plays a huge role in the economy today. A common misconception of marketing is that it is simply advertising. That could not be farther from the truth. While advertising is a part of marketing, it is not the entire thing. Every marketing campaign uses what's called the marketing mix. It consists of what's called the Four P's of marketing. They are product, price, place, and promotion. These are the things that marketers apply to try to meet the needs of their customers. This means that they come up with a product to meet their needs, price it accordingly, find a way to deal with the logistics of getting the product to a location where it can be sold, and they also try to find a way to reach their potential customer to let them know how their product will satisfy their needs

ORGANISATION PROFILE

HISTORY OF THE ORGANISATION:

Bharat Sanchar Nigam Limited (known as **BSNL**, India Communications Corporation Limited) is a public sector telecommunication company in India. It is India's largest telecommunication company with 24% market share as on March 31, 2008. Its headquarters are at Bharat Sanchar Hwan, Harish Chandra Mathur Lane, Jan path, New Delhi. It has the status of Mini Ratna, a status assigned to reputed public sector companies in India.

BSNL is India's oldest and largest Communication Service Provider (CSP). Currently has a the metropolitan cities of Mumbai and New Delhi which are managed by MTNL. As on March 31, 2008 **BSNL** commanded a customer base of 31.55 million Wire line, 4.58 million CDMA-WLL and 54.21 million GSM Mobile subscribers. **BSNL**'s earnings for the Financial Year ending March 31, 2007 stood at INR 397.15b (US$ 9.67 b) with net profit of INR 78.06b (US$ 1.90 billion). **BSNL** has an estimated market value of $ 100 Billion. The company is planning an IPO with in 6 months to offload 10% to public in the Rs.300-400 range valuing the company at over $100 billion.

Services:

CellOne
BSNL Mobile

excel
Prepaid Mobile

Data
Broadband
BSNL Broadband

BSNL provides almost every telecom service in India. Following are the main telecom services provided by BSNL:

- **Universal Telecom Service**: Fixed wire line services & Wireless in Local loop (WLL) using CDMA Technology called **bfone** and ***Tarang*** respectively. As of December 31, 2007, BSNL has 81% market share of fixed lines.

- **Cellular Mobile Telephone Services**: BSNL is major provider of Cellular Mobile Telephone services using GSM platform under the brand name BSNL Mobile. As of March 31, 2007 BSNL has 17% share of mobile telephony in the country.

- **Internet**: BSNL provides internet services through dial-up connection (Sancharnet) as Prepaid, (NetOne) as Postpaid and ADSL broadband (BSNL Broadband). BSNL has around 50% market share in broadband in India. BSNL has planned aggressive rollout in broadband for current financial year.

- **Intelligent Network (IN)**: BSNL provides IN services like televoting, toll free calling, premium calling etc.

BSNL launched 3G services in 11 cities of country in 2nd march 2009.MTNL which operates in Mumbai and Delhi first launched 3G services in these cities

"3G "TECHNOLOGY

3G is the third generation of mobile phone standards and technology, superseding 2.5G. It is based on the International Telecommunication Union (ITU) family of standards under the IMT-2000. 3G networks enable network operators to offer users a wider range of more advanced services while achieving greater network capacity through improved spectral efficiency. Services include wide-area wireless voice telephony, video calls, and broadband wireless data, all in a mobile environment. Additional features also include HSPA data transmission capabilities able to deliver speeds up to 14.4Mbit/s on the downlink and 5.8Mbit/s on the uplink.3G technologies enable network operators to offer users a wider range of more advanced services while achieving greater network capacity through improved spectral efficiency.

3G wireless technology represents the convergence of various 2G wireless telecommunications systems into a single uniform global system which includes terrestrial and satellite components in its functioning.

3G or the third-generation wireless refers to near future developments in personal & business wireless technology, especially relating to mobile communications. 3G or The Third Generation will usher in many benefits as roaming capability, broad bandwidth and high speed communication (upwards of 2Mbps).

3G Technology in India

From the time of telegraphs Indian telecom sector has witnessed an immense growth and has diversified into various segments like, Fixed Line Telephony, mobile telephony, GSM, CDMA, WLL etc. The telecom industry is growing at a fast pace introducing newer technologies. Even the network operators and handset providers are also coming up with newer value added services and advanced technology cell phones with multimedia applications. Now it's time to welcome the much-awaited 3G Technology. Bharat Sanchar Nigam Limited is all set to launch the technology by December 2007. Not only the network providers but also the handset providers in India are waiting eagerly for the launch of 3G to earn very high revenues from the value added services provided by the technology.

The technology is initially being launched on CDMA platform. The technology is being tested over various platforms and cellular networks. 3G or Third Generation technology is a convergence of various Second Generation telecommunication systems. The technology is intended for SMARTPHONES - multimedia cell phones. Video broadcasting and other e-commerce services such as, stock transactions and e-learning will now be made possible much faster. It offers 3 Mbps speed for downloading, which is very high as compared to that of the 2G technology. The 3G technology provides for internet surfing, downloading, e-mail attachment downloading, audio-video conferencing, fax services and many other broadband applications. 3G Technology was implemented in Japan for the first time in the world. Today the technology is serving 25 countries over more than 60 networks having its existence in Asia, Europe and USA. Video conferencing has been a major factor in the success of the technology.

Bharat Sanchar Nigam Ltd (BSNL), the world's 7th largest telecom operator is geared up to provide 3G to all.. BSNL said that 3G service is not just for elite class, but also for the General public of India.

BSNL said in a statement that "BSNL 3G services" is not merely a service targeted towards the elite class, but for the General public as well as it helps improve the voice quality as well as reducing congestion in existing GSM network.

BSNL said that from the four services available during the initial phase of the launch namely video calling, video conferencing, mobile TV and mobile broadband, the additional services offered now include Video on demand, video screening, full track music download and

CHAPTER II

OBJECTIVES OF THE STUDY

- To assess the awareness in advantages of 3G technology and services
- To study the customer perception regarding the launch of 3G services and technology
- To explore the market potential for the launch of 3G technology and services by BSNL at Tirupur with reference to the other network users.
- To identify the percentage of customers using other network who would avail the 3G technology of BSNL

RESEARCH METHODOLOGY:

Descriptive Research

The research is descriptive in nature as the study was done to find out the customer expectation of 3G technology in **BSNL**. The researcher has no control over the variable and they are independent of the state of affairs.

TOOLS USED FOR THE COLLECTION OF DATA

The questionnaire is major tool administered for collecting primary data from the respondents. The questionnaire was prepared in such a way that the respondents were also able to express to their opinion fully and frankly.

SAMPLING DESIGN

The sample size chosen for the study is 100 samples and they were selected using area random sampling.

Tools of Analysis

The analysis is done with the

Percentage method

Chi-square test

LIMITATION OF THE STUDY

For want of time the study has been restricted to Tirupur alone.

The number of respondents is limited to 100 only.

REVIEW OF LITERATURE

3G **Choice Could Roil Europe's Mobile Players**

China has yet to award ***3G mobile*** licenses. Who will benefit when it does is an open question, says Bengt Nordstrm of in Code It's not really a question of "will they or won't they?" but more a matter of "when?". The long-running saga of China's decision regarding licensing and adoption of third-generation ***mobile services*** has filled many a column inch. What is certain is that there will be ***3G*** in China, sometime Vendors such as Alcatel (ALA) and merger partner Lucent (LU), Nortel (NT), and Siemens/NEC (SI) (NIPNY), are relying on Chinese contracts to create sustainable positions in the worldwide ***3G*** market. Then, of course, there are the rising Chinese stars, Huawei and ZTE, who are justified in expecting a cut of the deal from their own government.After all, ***3G*** doesn't deliver much today that 2***G*** -- especially enhanced versions such as GPRS and EDGE -- cannot. If most customer needs can be satisfied with 2***G***, why rush to lay out all that money on building new networks simply because the rest of the world thinks it's the right thing to do.The future of the ***mobile*** industry is now being driven by the mass market. China is a huge economic force -- its very size, like India's, gives it tremendous market muscle. And while demographics may not allow ***3G mobile*** penetration across the whole of Chinese or Indian society, it's only a matter of time until the economies of scale in these massive emerging markets give ***3G*** the success that it has not achieved elsewhere.

Nordstrom, Bengt “Business Week Online” 30th May 2006, vol.4 Issue 2 p13-13, 1p

AUSTRALIAN 3G AUCTION TO BEGIN IN MARCH

MELBOURNE, Australia--The Australian Communications Authority (ACA) will hold the keenly awaited auction of third-generation (***3G***) spectrum in the 2 GHz radio-frequency band in early March. The new ***3G mobile services*** are expected to combine popular communications forms, such as ***mobile*** phones, the Internet and computers, into a single ***mobile*** device able to support voice, data and a range of new multimedia information and entertainment ***services***. The success of ***3G services*** is likely to rest as much with content providers as with network operators.Telstra, Cable & Wireless Optus and Vodafone Holdings have been touted as almost certain bidders in the auction. It isles likely that AAPT, Hutchison Telecommunications and One.Tel will participate as they already have spectrum that can be used for ***3G services***. While it is possible to use the 800 MHz, 1800 MHz and 900 MHz bands for ***3G services***, it is likely handsets will initially be made for the 2 GHz radio frequency band.

One.Tel, backed by media magnates Kerry Packer and Rupert Murdoch, has already indicated it will not involve itself in the auction, saying it does not need extra spectrum to offer ***3G services***. One. Tel's share price, which took a hammering last year, rose on the news. Initially, the company asked for a 12-month delay to the ***3G*** spectrum auction.Analysts think One.Tel's financial position prohibits it from bidding for ***3G*** spectrum. It already spent more than A$500 million (US$286 million) last year on 1800 MHz ***mobile***-phone spectrum. Although the company said it does not plan to sell the ***mobile*** network it is building at a cost of A$1.1 billion (US$629 million), speculation circulated in October that it might do so to concentrate on the delivery of second-generation (2***G***), and ultimately, ***3G mobile*** ***services***.Optus, too, has made it clear it will not pay unreasonable prices but has indicated it will take part in the auction. There is speculation that Optus might form a consortium rather than bid alone.Rumors have also surrounded the sale or partial sale of Optus' ***mobile*** business, because its major shareholder, Cable & Wireless in Britain, sold its ***mobile*** interests to Deutsche Telekom in 1999. However, Paul O'Sullivan, Optus managing director of ***mobiles***, was reported in August 2000 to favor an international alliance with a global ***mobile*** operator.Telecom New Zealand, as part of a consortium including NTT DoCoMo, has expressed interest in Optus' ***mobile*** business.The ACA is also hopeful it will be able to attract offshore bidders. To facilitate overseas interest, the ACA has enlisted the ***services*** of Deutsche Bank. Potential bidders worldwide have been sent marketing material.

Deutsche Bank has come under criticism because, in addition to advising the ACA, it is also assisting potential bidders to raise finances for licenses. Furthermore, it is advising possible suitors for the Optus ***mobile*** business.But Australia will face competition for overseas investment with more than 80 ***3G*** licenses available worldwide this year.Last year, the Australian government budgeted a return of A$2.6 billion (US$1.5 billion) in its 2001 estimates, although pundits now believe that figure optimistic. Results for the last two auctions of ***3***.4 GHz and 27 GHz spectrum were a little disappointing.While the United Kingdom and Germany reaped handsome returns of nearly US$35 billion and US$46 billion, respectively, other ***3G*** auctions in countries such as Switzerland and New Zealand have produced disappointing results.

In Australia's favor, though, is a pro-competition environment, strong consumer interest and high ***mobile*** penetration. Importantly, Australia is seen as a launching pad into the key Asia-Pacific markets.The Australian Telecommunications Users Group, however, has warned the days of ***mobiles*** as "gee-whiz" gadgets are gone, and users are only interested in sensibly auction participants themselves to decide what spectrum is worth to them based on their own business cases." In metropolitan areas, 60 megahertz of paired spectrum and 20 megahertz of unpaired spectrum will be auctioned, except in the nation's capital, Canberra, where 45 megahertz of paired and 20 megahertz of unpaired spectrum will be offered. In regional areas, 20 megahertz of paired spectrum will be available.

The auction, which will divide spectrum into 58 lots with two lots offering national licenses, anticipates a minimum of four competitors in the metropolitan auction and two in the regional. The 15-year licenses will be auctioned over the Internet, as the ACA has done on previous occasions. The 2 GHz spectrum is expected to be cleared by October 2002.

PHOTO (COLOR): The World Youth Sailing Championships Laser Class were held in Sydney Harbor in December

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Source: Best, Paul Global Wireless; Jan/Feb2001, Vol. 4 Issue 1, p4, 1/2p, 1 color

3G mobile services *will drive integrated passives*

THE MARKET FOR integrated passives is set to grow with the launch of 2.5***G*** and ***3G*** phones ***services***, claims California Micro Devices (CMD)."Integrated passives are really taking hold, especially in cellphones," said Bob Dickinson, chief executive at CMD. "A year ago you would have been hard pressed to find any."

Products from firms such as CMD combine a number of discrete components, perhaps 20 to 40, in a single device. They form circuits for EMI and electrostatic discharge protection, signal termination and level-shifting.Moreover, said Dickinson, "for the ***mobile*** market we're putting these into chip scale packaging".Board area savings can reach 90 per cent, while the smaller dimensions of the devices reduce parasitic capacitance and can improve electrical performance. Motorola is the firm's biggest customer, while Siemens and Sony-Ericsson are moving towards such devices.

Dickinson believes that ***3G*** is still some way off: "***3G*** is still in its early stages and will take a while to come into its own. I think 2.5***G*** is going to provide some interesting applications."

***3G mobile* telecommunications licenses in Europe**

It aims to look for reasons for the poor market performance of ***3G***.

Design/methodology/approach - The study analyses market data from 17 Western European countries and tests propositions with statistical methods. Findings - The paper finds that there is evidence in support of to the 'overbidding' hypothesis, i.e. license fees determined in auctions were higher than ultimately compatible with the originally envisaged market structure based on the n + 1 rule. ***3G*** markets therefore are more concentrated than 2***G*** markets. The correct design of market structure is crucial for accelerating the speed of introduction of ***3G services***: the speed increases with the number of licenses granted, but decreases with the number of idle licenses. Auctions are not superior to other methods with respect to speed of innovation. Originality/value - This is the first study of this kind and should be read by academics or practitioners dealing with regulation, spectrum licensing and technology forecasting.

Gruber, Harald *h.gruber@eib.org* Info; 2007, Vol. 9 Issue 6, p24-33, 10p, ***3*** charts, 2 graphs

Beyond 3G: wideband wireless data access based on OFDM and dynamicpacket assignment

The rapid growth of wireless voice subscribers, the growth of the Internet, and the increasing use of portable computing devices suggest that wireless Internet access will rise rapidly over the next few years. Rapid progress in digital and RF technology is making possible highly compact and integrated terminal devices, and the introduction of sophisticated wireless data software is making wireless Internet access more user-friendly and providing more value. Transmission rates are currently only about 10 kb/s for large cell systems. Third-generation wireless access such as WCDMA and the evolution of second-generation systems such as TDMA IS-136+, EDGE, and CDMA IS-95 will provide nominal bit rates of 50-384 kb/s in macrocellular systems. This article discusses packet data transmission rates of 2-5 Mb/s in macrocellular environments and up to 10 Mb/s in microcellular and indoor environments as a complementary service to evolving second- and third-generation wireless systems. Dynamic packet assignment for high-efficiency resource management and packet admission; OFDM at the physical layer with interference suppression, space-time coding, and frequency diversity; as well as smart antennas to obtain good power and spectral efficiency are discussed in this proposal. Flexible allocation of both large and small resources also permits provisioning of services for different delay and throughput requirements

Communications Magazine, IEEE Jul 2000Volume: 38, Issue: 7On page(s): 78-87:

Wireless Internet access: 3G vs. WiFi

This compares and contrasts two technologies for delivering broadband wireless Internet access services: "3G" vs. "WiFi". The former, 3G, refers to the collection of third-generation mobile technologies that are designed to allow mobile operators to offer integrated data and voice services over mobile networks. The latter, WiFi, refers to the 802.11b wireless Ethernet standard that was designed to support wireless LANs. Although the two technologies reflect fundamentally different service, industry, and architectural design goals, origins, and philosophies, each has recently attracted a lot of attention as candidates for the dominant platform for providing broadband wireless access to the Internet. It remains an open question as to the extent to which these two technologies are in competition or, perhaps, may be complementary. If they are viewed as in competition, then the triumph of one at the expense of the other would be likely to have profound implications for the evolution of the wireless Internet and structure of the service-provider Indus

Internet access; Nov2007, Vol. 16 Issue 11, p18-19, 2p, 1 map

DATA ANALYSIS & INTERPRETATION

CHAPTER III

DATA ANALYSIS AND INTERPRETATION

Table 1

Table showing the gender of the respondents

Gender	No.of respondents	Percent
Male	59	59.0
Female	41	41.0
Total	100	100.0

From the table 1, it is inferred that 59% of the respondents are male and 41% of the respondents are female. **Majority of the respondents are male.**

Exhibit1

Exhibit showing the gender of the respondents

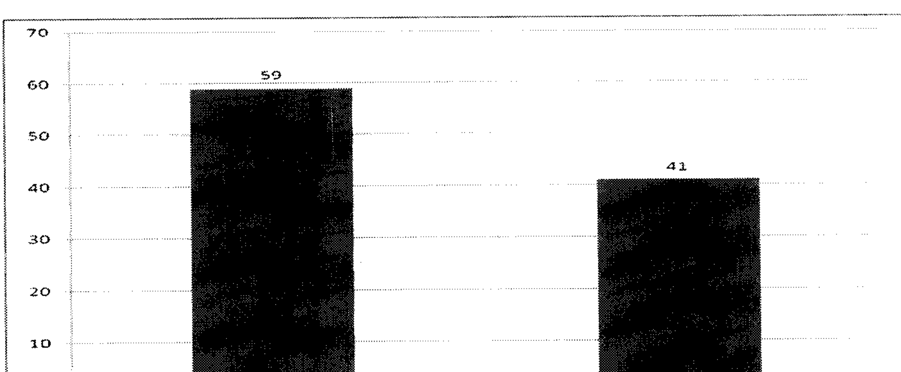

Table 2

Table showing the age group of the respondents

Age in years	No.of respondents	Percent
20 to 25yrs	28	28.0
26 to 30yrs	19	19.0
31 to 40yrs	25	25.0
41 to 50yrs	25	25.0
51 to 60yrs	3	3.0
Total	100	100.0

From the table 2, it is inferred that 28% of the respondents are between the age group of 20 to 25 years, 19% of the respondents are between the age group of 26 to 30 years,25% of the respondents are between the age group of 31 to 40 years, 25% of the respondents are between the age group of 41 to 50 years and 3% of the respondents are between the age group of 51 to 60 years. **Majority of the respondents are between the age group of 20 to 25 years because this age group people are interested in advanced and new coming technology.**

Exhibit 2

Exhibit showing the age group of the respondents

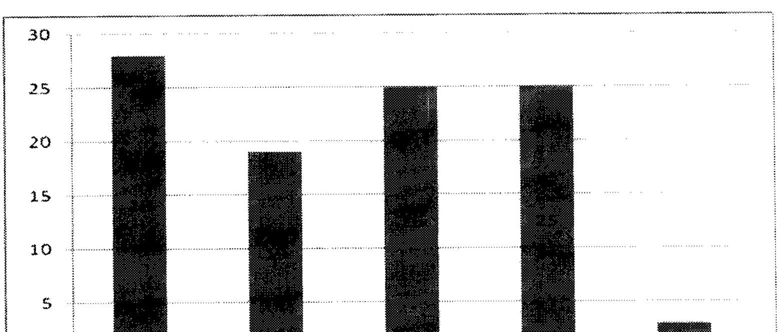

Table 3

Table showing the marital status of the respondents

Marital Status	No.of respondents	Percent
Single	23	23.0
Married	77	77.0
Total	100	100.0

From the table 3, it is inferred that 23% of the respondents are single and 77% of the respondents are married. **Majority of the respondents are married.**

Exhibit 3

Exhibit showing the marital status of the respondents

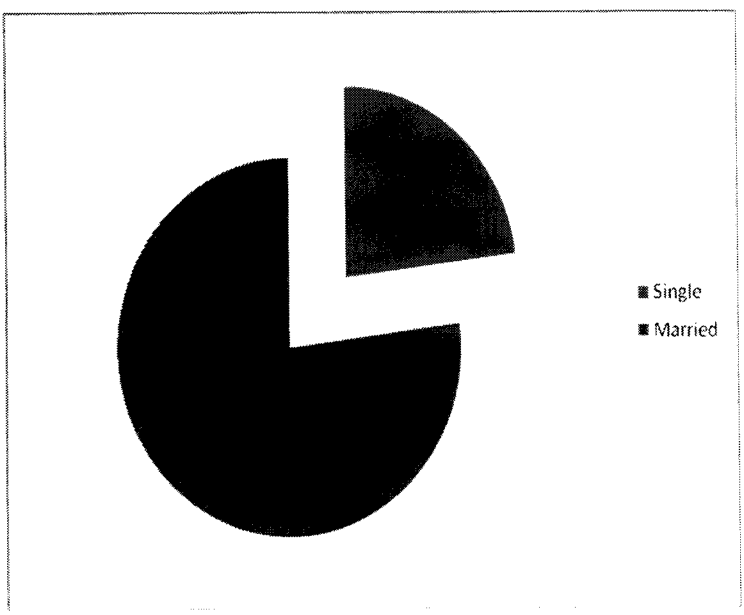

Table 4

Table showing the family size of the respondents

Family Size	No.of respondents	Percent
2	8	10.0
3	27	36.0
4	32	41.0
>4	10	13.0
Total	77	100.0

From the table 4, it is inferred that out of 77 married respondents,10% of the respondents family size is 2, 36% of the respondents family size is 3, 41% of the respondents family size is 4 and 13% of the respondents family size is above 4. **Majority of the respondents family size is 4.**

Exhibit 4

Exhibit showing the family size of the respondents

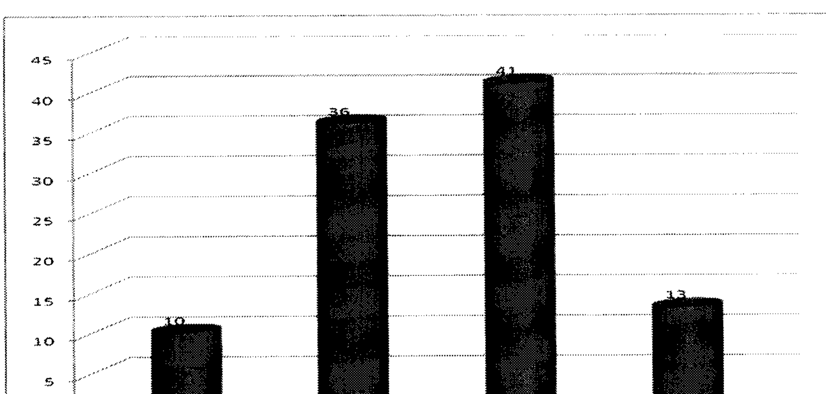

Table 5

Table showing the number of mobiles in the family of the respondents

Number Of Mobiles	No.of respondents	Percent
One	9	9.0
Two	30	30.0
Three	26	26.0
Four	34	34.0
> Four	1	1.0
Total	100	100.0

From the table 5, it is inferred that 9% of the respondents uses 1 mobile in the family, 30% of the respondents uses 2 mobiles in the family, 26 % of the respondents uses 3 mobiles in the family, 34% of the respondents uses 4 mobiles in the family and 1% of the respondents uses more than 5 mobiles in the family. **Majority of the respondents uses 4 mobiles in the family because the families are having average of 4 members and each possess the mobile in this modern generation.**

Exhibit 5

Exhibit showing the number of mobiles in the family of the respondents

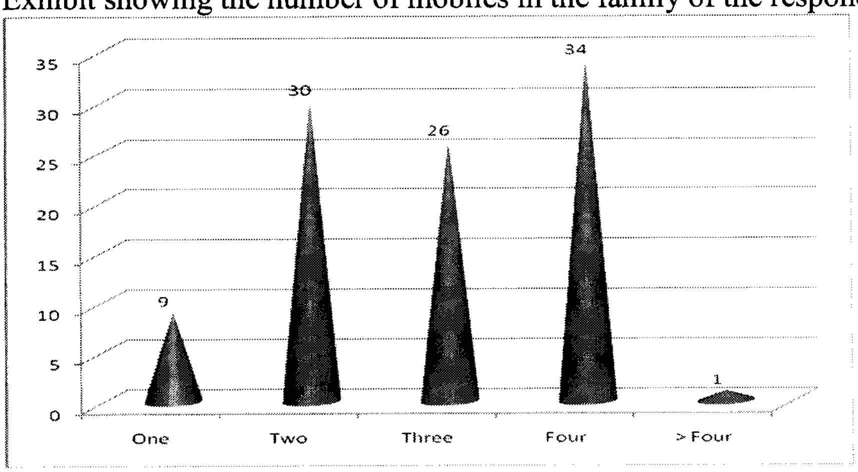

Table 6

Table showing the educational qualification of the respondents

ducation	No.of respondents	Percent
School level	38	38.0
Under graduate	39	39.0
Post graduate	19	19.0
Higher	4	4.0
Total	100	100.0

From the table 6, it is inferred that 38% of the respondents educational qualification is School level, 39% of the respondents educational qualification is under graduate, 19% of the respondents educational qualification is post graduate and 4% of the respondents educational qualification is higher level. **Majority of the respondents educational qualification is under graduate because Tirupur city is entrepreneurial area it requires a basic qualification.**

Exhibit 6

Exhibit showing the educational qualification of the respondents

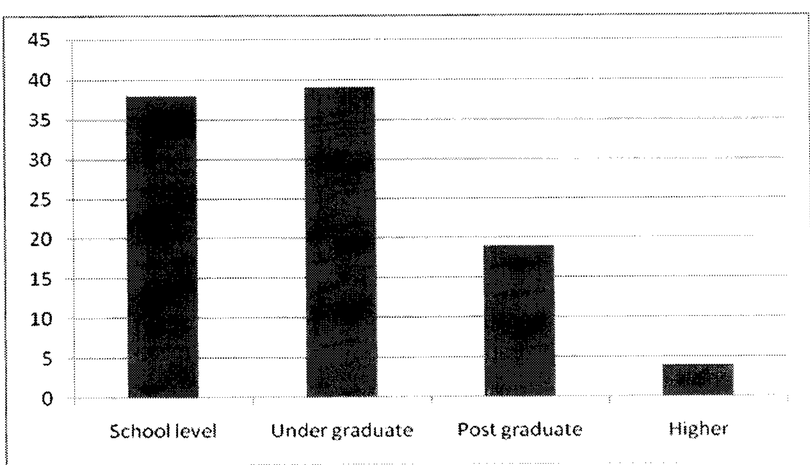

Table 7

Table showing the occupation of the respondents

Occupation	No.of respondents	Percent
Business	43	43.0
Salaried	23	23.0
Self employed	14	14.0
Student	14	14.0
others	6	6.0
Total	100	100.0

From the table 7, it is inferred that 43% of the respondents occupation is business, 23% of the respondents are salaried, 14% of the respondents are self employed, 14% of the respondents are students and 6% of the respondents belongs to other than the above than the mentioned category. **Majority of the respondents are businessman because Tirupur city is famous for exporting and it is business area zone.**

Exhibit 7

Exhibit showing the occupation of the respondents

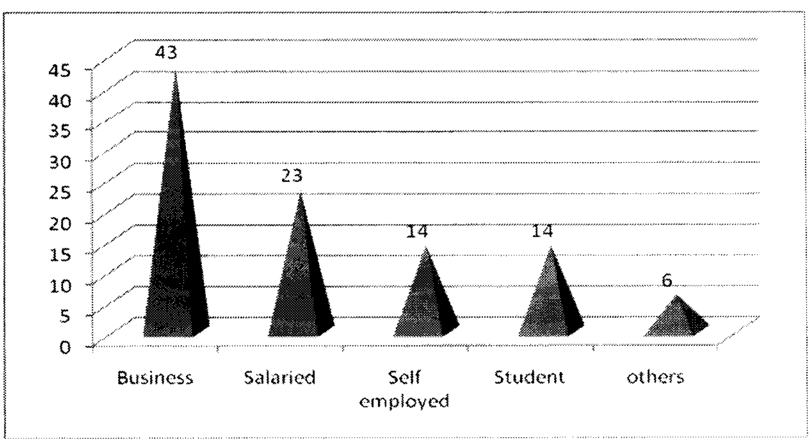

Table 8

Table showing the income level of the respondents

Income Level	No.of respondents	Percent
less than Rs. 5000/-	8	8.0
Rs. 5000/- to Rs. 15000/-	45	45.0
Rs. 15000/- to Rs. 25000/-	33	33.0
above Rs. 25000/	14	14.0
Total	100	100.0

From the table 8, it is inferred that 8% of the respondents monthly income level is less than Rs.5000/-, 45% of the respondents monthly income level is Rs. 5000/- to Rs. 15000/- , 33% of the respondents monthly income level is Rs. 15000/- to Rs. 25000/- and 14% of the respondents monthly income level is above Rs. 25000/- **Majority of the respondents monthly income level is Rs. 5000/- to Rs. 15000/- because Tirupur city covers middle income level people.**

Exhibit 8

Exhibit showing the income level of the respondents

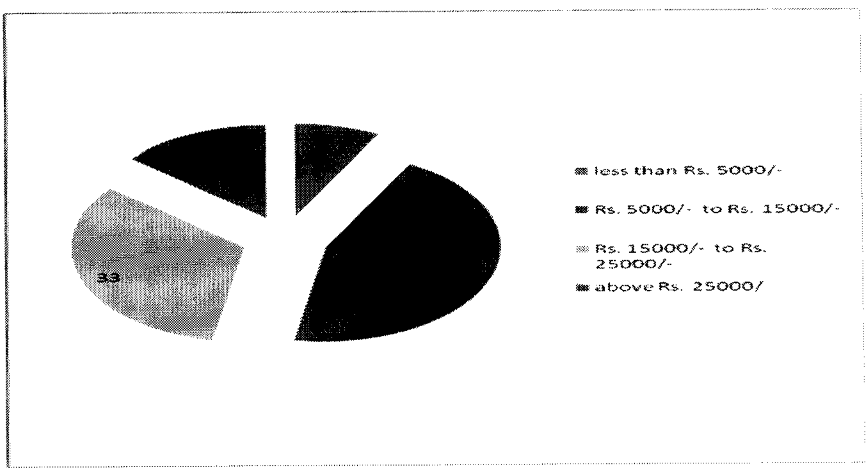

Table 9

Table showing the mobile network used by the respondents

Particulars	No.of respondents	Percent
Airtel	39	39.0
Reliance	13	13.0
Tata Indicom	3	3.0
Aircel	30	30.0
Vodafone	15	15.0
Total	100	100.0

From the table 9, it is inferred that 39% of the respondents mobile network is Airtel, 13% of the respondents mobile network is Reliance, 3% of the respondents mobile network is Tata Indicom, 30% of the respondents mobile network is Aircel, 39% of the respondents mobile network is Vodafone. **Majority of the respondents mobile network is Airtel because they are satisfied with the charges in that network.**

Exhibit 9

Exhibit showing the mobile network used by the respondents

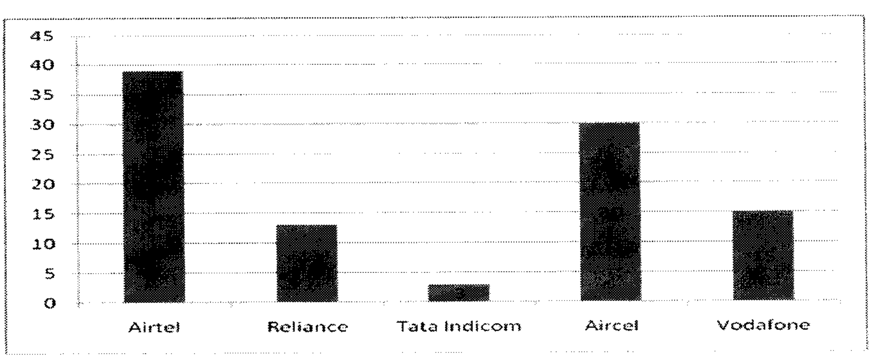

Table 10

Table showing the schemes used by the respondents

Schemes	No.of respondents	Percent
Postpaid	36	36.0
Prepaid	64	64.0
Total	100	100.0

From the table 10, it is inferred that 36% of the respondents using postpaid scheme and 64% of the respondents using prepaid scheme.**Majority of the respondents using prepaid scheme because the respondents feel that they are convenient in using prepaid schemes because of easily available recharge coupons in the locality.**

Exhibit 10

Exhibit showing the schemes used by the respondents

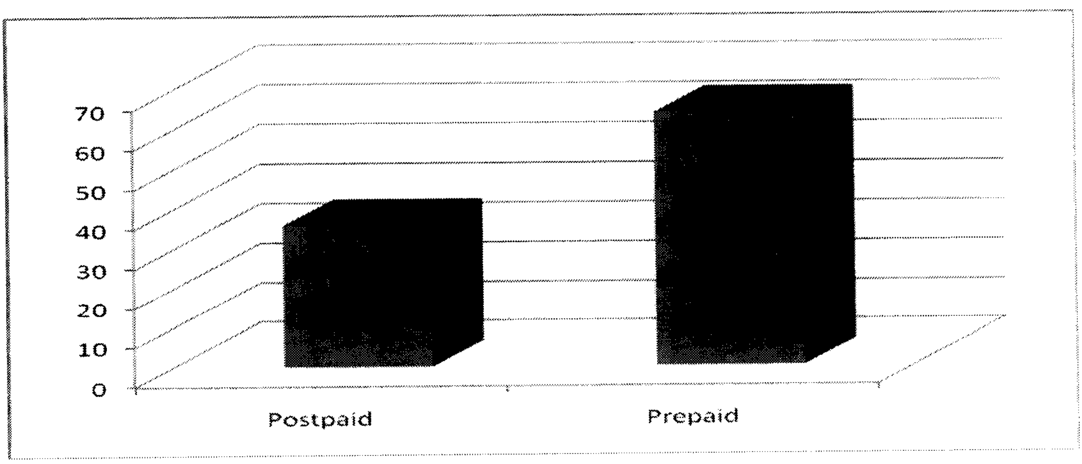

Table 11

Table showing the awareness about 3G lauch in Tirupur by the respondents

Awareness	No.of respondents	Percent
Yes	67	67.0
No	33	33.0
Total	100	100.0

From the table 11, it is inferred that 67% of the respondents are aware about 3G launch in Tirupur and 33% of the respondents are not aware about 3G launch in Tirupur. **Majority of the respondents are aware about 3G lauch in Tirupur because of the communication with the many people in the business.**

Exhibit 11

Exhibit showing the awareness about 3G lauch in Tirupur by the respondents

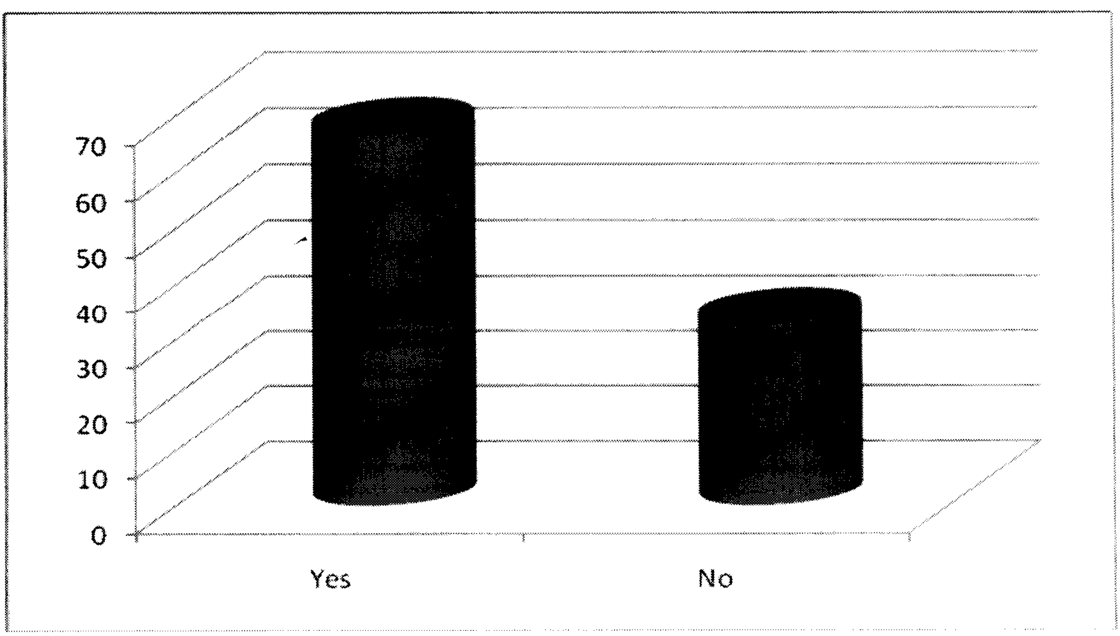

Table 12

Table showing that the respondents how they came to know about3G

Source	No.of respondents	Percent
Print Media [Newspaper / Magazine]	38	38.0
Electronic Media [Radio / Telivision]	4	4.0
Internet Website	4	4.0
Verbal [Friends /Family]	54	54.0
Total	100	100.0

From the table 12, it is inferred that 38% of the respondents came to know about 3G through print media, 4% of the respondents came to know about 3G through Electronic Media, 4%of the respondents came to know about 3G through Internet Websiteand 54% of the respondents came to know about 3G through Verbal [Friends /Family].**Majority of the respondents came to know about 3G through Verbal [Friends /Family] because communication in the business circle is effective .**

Exhibit 12

Exhibit showing that the respondents how they came to know about3G

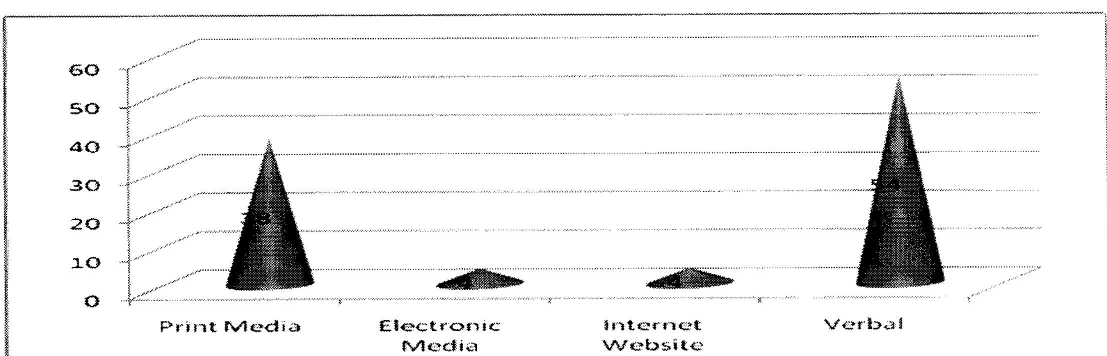

Table 13

Table showing the satisfaction level of the respondents

Satisfaction Level	No.of respondents	Percent
Satisfied	60	60.0
Highly Satisfied	11	11.0
Neutral	24	24.0
Dissatisfied	4	4.0
Highly dissatisfied	1	1.0
Total	100	100.0

From the table 13, it is inferred that 60% of the respondents are satisfied with their network, 11% of the respondents are highly satisfied with their network, 24% of the respondents are neutral ,4 % of the respondents dissatisfied with their network,1 % of the respondents are highly dissatisfied with their network. **Majority of the respondents are satisfied with their network because of the service rendered to them.**

Exhibit 13

Exhibit showing the satisfaction level of the respondents

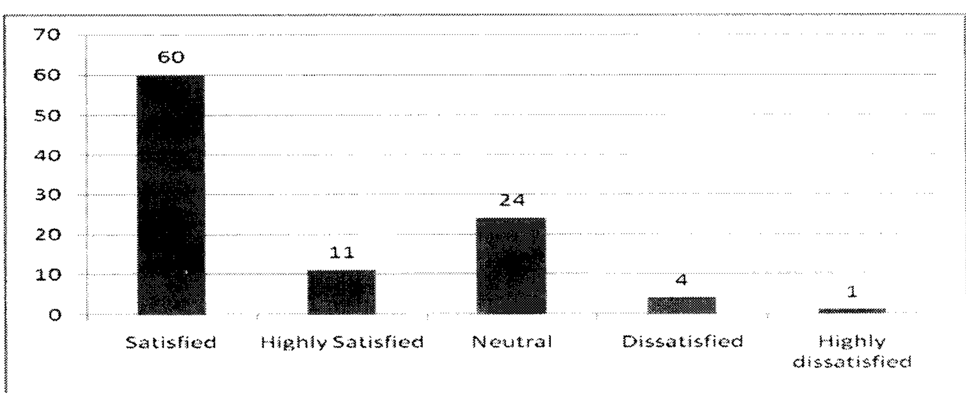

Table 14

Table showing the preference of BSNL3G service by the respondents

Preference	No.of respondents	Percent
Yes	89	89.0
No	11	11.0
Total	100	100.0

From the table 14, it is inferred that 89% of the respondents will opt BSNL 3Gservices and 11% of the respondents will not opt BSNL 3G services.**Majority of the respondents will opt BSNL 3G services because of its usefulness and advanced technology.**

Exhibit 14

Exhibit showing the preference of BSNL3G service by the respondents

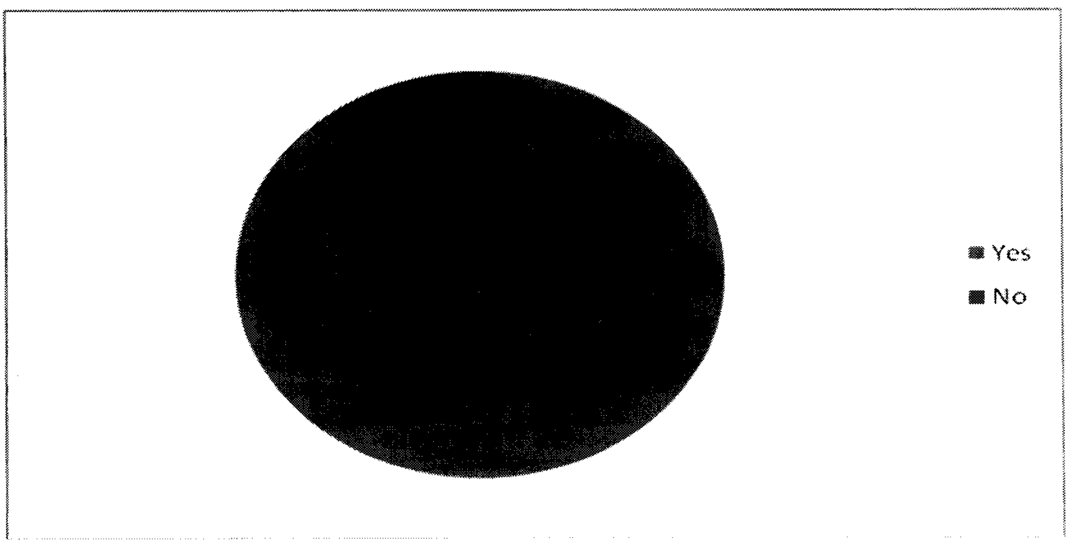

Table 15
Table showing the features in 3G attracted towards the respondents

Features	No.of respondents	Percent
Enhanced multimedia[Voice , Data, Video and Remote control]	17	19.0
Usability on all popular models [cellular telephone,e-mail, paging,fax, video conferencing and web browsing]	26	29.0
Broad bandwidth and high speed[upwards of 2Mbps]	12	14.0
All the above	34	38.0
Total	89	100.0

From the table 15, it is inferred that out of 89 respondents who opt 3G, 19% of the respondents attracted by features in 3G is Enhanced multimedia ,29% of the respondents attracted by features in 3G is Usability on all popular models 14% of the respondents attracted by features in 3G is Broad band and 38% of the respondents are attracted by all features in 3G mentioned above. **Majority of the respondents are attracted by all features in 3G mentioned above because they feel that all the features are essential to them.**

Exhibit 15
Exhibit showing the features in 3G attracted towards the respondents

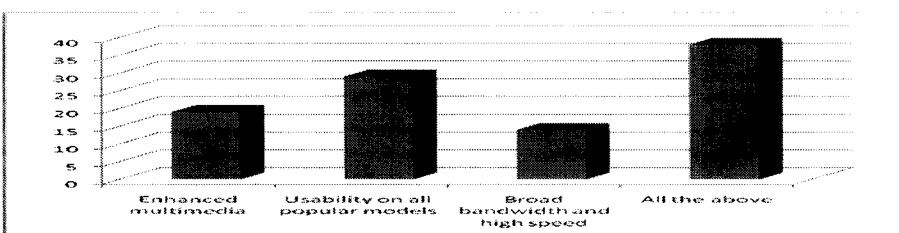

Table 16

Table showing the usage of online by the respondents

Online Usage	No.of respondents	Percent
Very rarely	52	58.0
1 or 2 times a day	17	19.0
3 or 5 times a day	8	9.0
More than 5 times a day	12	14.0
Total	89	100.0

From the table 16, it is inferred that out of 89 respondents who opt 3G, 58% of the respondents usage of online in mobile is very rare, 19% of the respondents usage of online in mobile is 1 or 2 times a day, 9% of the respondents usage of online in mobile is 3 or 5 times a day and 14% of the respondents usage of online in mobile is More than 5 times a day .

Majority of the respondents usage of online in mobile is very rare because they are not in need of using the mobile for access net.

Exhibit 16

Exhibit showing the usage of online by the respondents

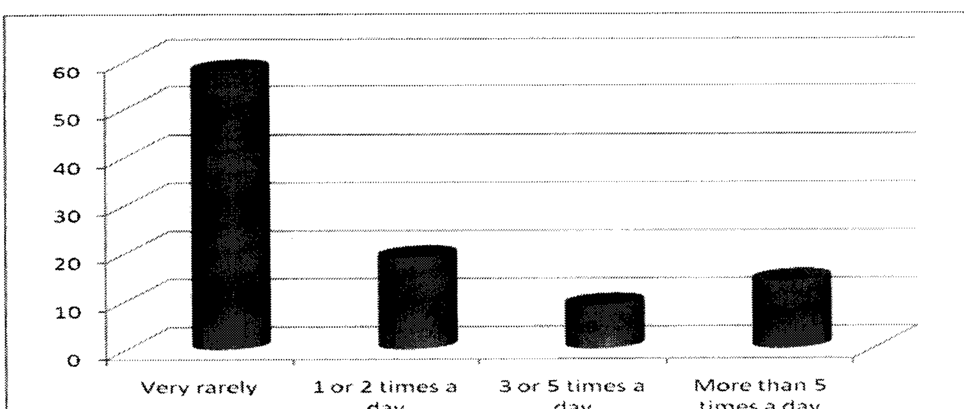

Table 17

Table showing the satisfactory position in usage of GPRS by the respondents

GPRS	No.of respondents	Percent
Yes	21	23.0
No	68	77.0
Total	89	100.0

From the table 17, out of 89 respondents who opt 3G, it is inferred that 23% of the respondents are satisfied with access of net in GPRS and 77% of the respondents are not satisfied with access of net in GPRS. **Majority of the respondents are not satisfied with access of net in GPRS because the speed is not high.**

Exhibit 17

Exhibit showing the satisfactory position in usage of GPRS by the respondents

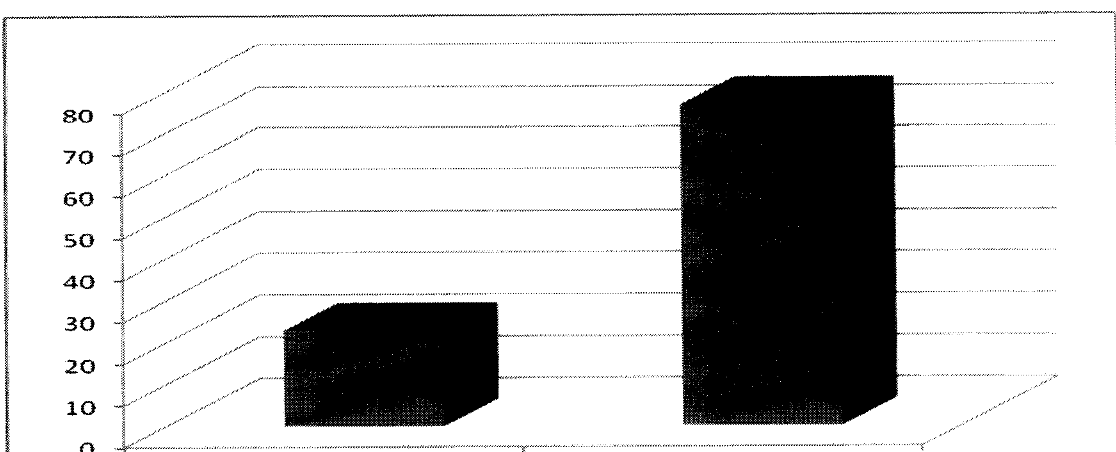

Table 18

Table showing the expectation of internet access of 3G by the respondents

Expectation on3G	No.of respondents	Percent
Yes	66	97.0
No	2	3.0
Total	68	100.0

From the table 18, it is inferred that out of 68 respondents who is not satisfied with GPRS, 97% of the respondents are expecting 3G will provide faster internet access and 3% of the respondents are expecting 3G will provide faster internet access. **Majority of the respondents are expecting 3G will provide faster internet access because it is with advanced technology.**

Exhibit 18

Exhibit showing the expectation of internet access of 3G by the respondents

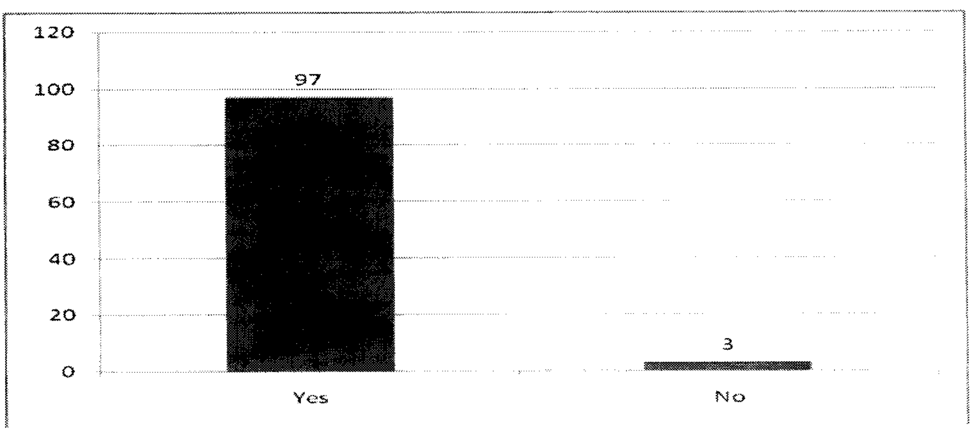

Table 19
Table showing the mobile brand preferred for 3G by the respondents

Mobile brand	No.of respondents	Percent
Apple's iphone	12	13.0
Nokia's N95	56	62.0
Sony ericsion's W950i	15	17.0
LG's KE850	2	3.0
Others	4	5.0
Total	89	100.0

From the table 19, it is inferred that out of 89 respondents who opt 3G, 13% of the respondents prefer Apple's iphone mobile brand for 3G service, 56% of the respondents prefer Nokia's N95 mobile brand for 3G service, 17% of the respondents prefer Sony ericsion's W950i mobile brand for 3G service, 3% of the respondents prefer LG's KE850 mobile brand for 3G service, 5% of the respondents prefer other than the mobile brand mentioned above for 3G service.**Majority of the respondents prefer Nokia's N95 mobile brand for 3G service because it is cheaper and user friendly.**

Exhibit 19
Exhibit showing the mobile brand preferred for 3G by the respondents

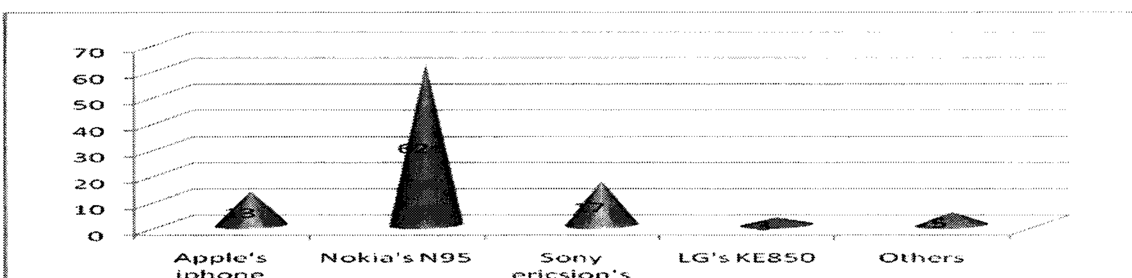

Table 20
Table showing the pricing level of 3G mobile suggested by the respondents

Pricing Level	No.of respondents	Percent
< RS.5000	26	29.0
RS.5000-10000	50	56.0
RS.10000 - 20000	12	14.0
RS.20000 - 30000	1	1.0
Total	89	100.0

From the table 3, it is inferred that out of 89 respondents who opt 3G, 29% of the respondents suggests price level of 3G mobile less than RS.5000, 56% of the respondents suggests price level of 3G mobile RS.5000 to RS.10000, 14% of the respondents suggests price level of 3G mobile RS.10000 to RS.20000 and 1% of the respondents suggests price level of 3G mobile RS.20000 to RS.30000.**Majority of the respondents suggests price level of 3G mobile RS.5000 to RS.10000 because this price is payable by them and even middle income people can get it.**

Exhibit 20
Exhibit showing the pricing level of 3G mobile suggested by the respondents

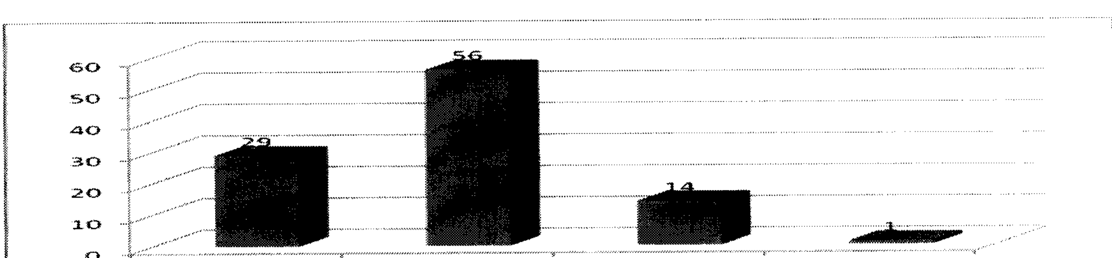

Table 21

Table showing the parallel service preferred by the respondents

Parallel Service	No.of respondents	Percent
Yes	77	86.0
No	12	14.0
Total	89	100.0

From the table 21, it is inferred that out of 89 respondents who opt 3G service, 86% of the respondents will have parallel service of 3G to their preferred network and 14% of the respondents will not have parallel service of 3G to their preferred network.**Majority of the respondents will have parallel service of 3G to their preferred network.**

Exhibit 21

Exhibit showing the parallel service preferred by the respondents

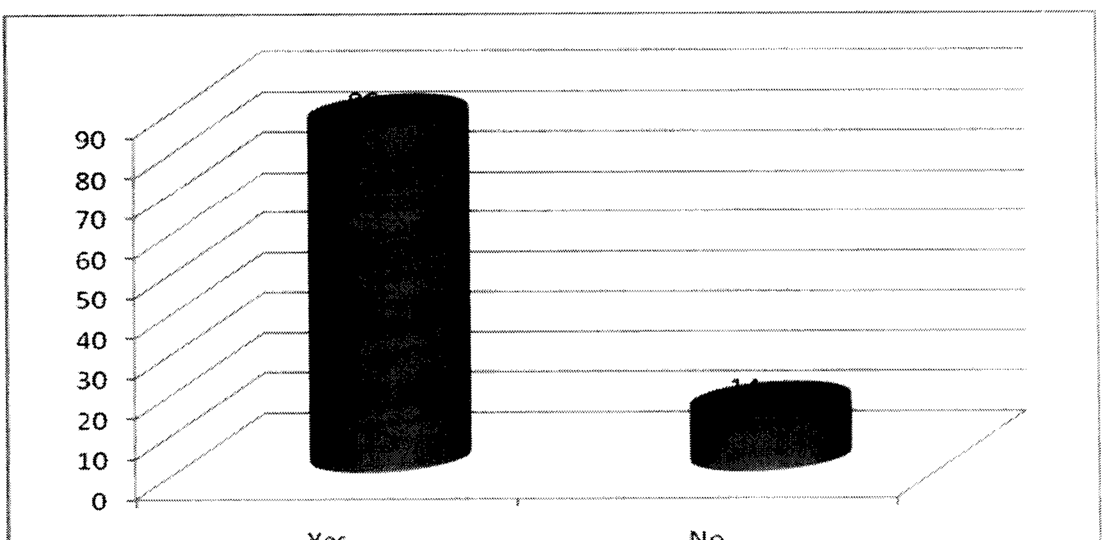

Table 22

Table showing the recommendations for 3G by the respondents

Recommendations	No.of respondents	Percent
Yes	50	57.0
No	39	43.0
Total	89	100.0

From the table 22, it is inferred that out of 89 respondents who opt 3G service,57 % of the respondents will recommend 3G to their friends and relatives and 43 % of the respondents will not recommend 3G to their friends and relatives. **Majority of the respondents will recommend 3G to their friends and relatives because everyone can get benefit of using it**

Exhibit 22

Exhibit showing the recommendations for 3G by the respondents

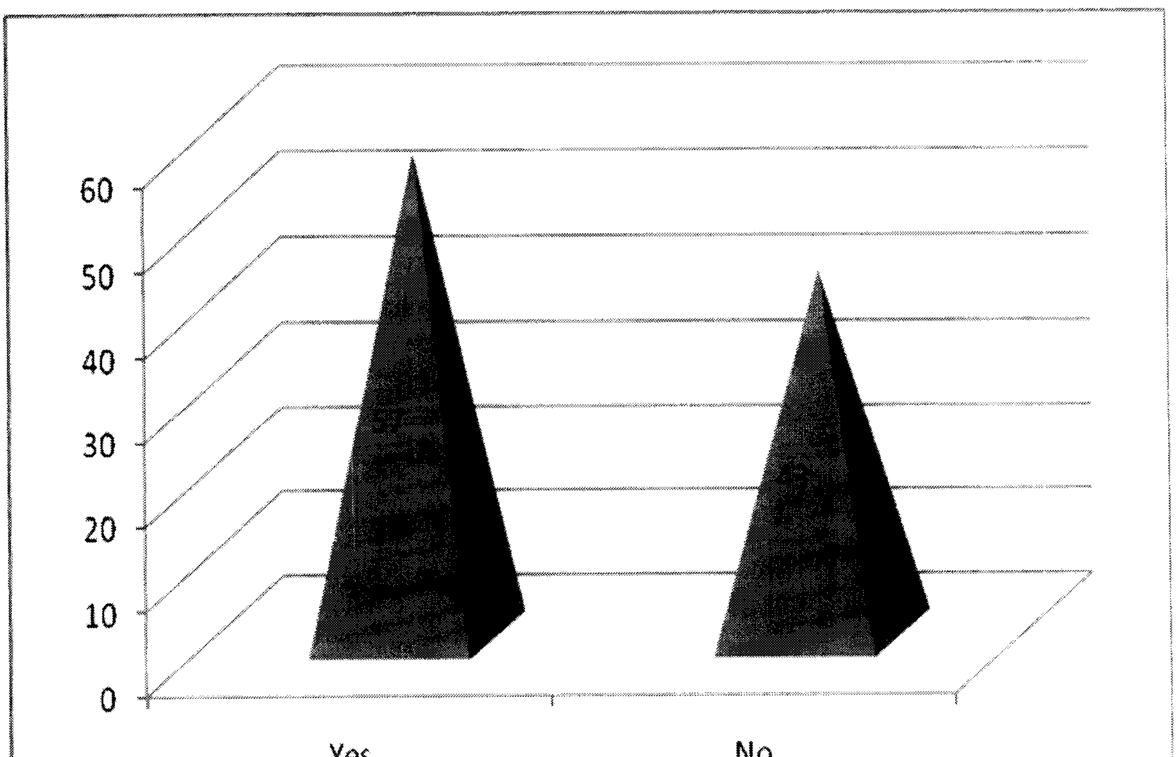

Table 23

INCOME * PRICING Crosstabulation

Hypothesis

H0: There is no relationship between two variables. Two variables are interdependent. The chi-square test is performed at 5% significant level.

		PRICING				Total
		< 50000	5000-10000	10000 - 20000	20000 - 30000	
INCOME	less than Rs. 5000/-	4	3	0	0	7
	Rs. 5000/- to Rs. 15000/-	13	24	3	0	40
	Rs. 15000/- to Rs. 25000/-	8	17	4	0	29
	above Rs. 25000/	1	6	5	1	13
Total		26	50	12	1	89

CHI-SQUARE TEST

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.562[a]	9	.029
Likelihood Ratio	16.166	9	.063
Linear-by-Linear Association	11.971	1	.001
N of Valid Cases	89		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .08.

The probability of the chi-square test statistic(chi-square=16.919) was p= 20,lesser than the alpha level of significance of 0.05. The null hypothesis is H0 is rejected. The two variables are depedent on each other. There is relationship between two variables.

The income and pricing depends on each other.

Table 24

OCCUPATION * FEATURES Crosstabulation

Hypothesis

H0: There is no relationship between two variables. Two variables are interdependent. The chi-square test is performed at 5% significant level.

		FEATURES				Total
		Enhanced multimedia[Voice , Data, Video and Remote control]	Usability on all popular models [cellular telephone,e-mail, paging,fax, video conferencing and web browsing	Broad bandwidth and high speed[upwards of 2Mbps]	All the above	
OCCUPATION	Business	8	12	7	10	37
	Salaried	6	7	1	7	21
	Self employed	1	2	1	8	12
	Student	1	3	1	8	13
	others	1	2	2	1	6
Total		17	26	12	34	89

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.619[a]	12	.263
Likelihood Ratio	14.533	12	.268
Linear-by-Linear Association	2.918	1	.088
N of Valid Cases	89		

a. 15 cells (75.0%) have expected count less than 5. The minimum expected count is .81

The probability of the chi-square test statistic(chi-square=21) was p= 14,greater than the alpha level of significance of 0.05. The null hypothesis is H0 is accepted. The two variables are independent on each other. There is no relationship between two variables.

The occupation and the features of the mobile are not dependent on each other.

Table 25

INCOME * BRAND Crosstabulation

Hypothesis

H0: There is no relationship between two variables. Two variables are interdependent. The chi-square test is performed at 5% significant level.

	BRAND					Total
	Apple's iphone	Nokia's N95	Sony ericsion's W950i	LG's KE850	Others	
less than Rs. 5000/-	0	6	1	0	0	7
Rs. 5000/- to Rs. 15000/-	5	26	6	2	1	40
Rs. 15000/- to Rs. 25000/-	4	15	7	0	3	29
above Rs. 25000/	3	9	1	0	0	13
	12	56	15	2	4	89

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.708[a]	12	.554
Likelihood Ratio	12.649	12	.395
Linear-by-Linear Association	.223	1	.637
N of Valid Cases	89		

a. 15 cells (75.0%) have expected count less than 5. The minimum expected count is .16.

The probability of the chi-square test statistic(chi-square=21.025) was p= 11.54 greater, than the alpha level of significance of 0.05. The null hypothesis is H0 is accepted. The two variables are indepedent on each other. There is no relationship between two variables. The income and the brand of the mobile are not dependent.

FINDINGS AND SUGGESSION

CHAPTER 1V

FINDINGS

- It is inferred that 28% of the respondents are between the age group of 20 to 25 years.
- It is inferred that 77% of the respondents are married.
- It is inferred that, out of 77 married respondents 41% of the respondents family size is 4.
- It is inferred that 34% of the respondents uses 4 mobiles in the family.
- It is inferred that 39% of the respondents educational qualification is under graduate.
- It is inferred that 43% of the respondents occupation is business.
- It is inferred that 45% of the respondents monthly income level is Rs. 5000/- to Rs. 15000/- .
- It is inferred that 39% of the respondents mobile network is Airtel.
- It is inferred that 64% of the respondents using prepaid scheme.
- It is inferred that 67% of the respondents are aware about 3G launch in Tirupur

- It is inferred that 54% of the respondents came to know about 3G through Verbal [Friends /Family].

- It is inferred that 60% of the respondents are satisfied with their network.

- It is inferred that 89% of the respondents will opt BSNL 3Gservices.

- It is inferred that out of 89 respondents who opt BSNL 3G services 38% of the respondents are attracted by enhanced multimedia, cellular telephone,e-mail, paging,fax, video conferencing,web browsing and broadband

- It is inferred that out of 89 respondents who opt 3G BSNL service, 58% of the respondents usage of online in mobile is very rare.

- It is inferred that out of 89 respondents who opt 3G BSNL service ,77% of the respondents are not satisfied with access of net in GPRS.

- It is inferred that out of 68 respondents who is not satisfied with GPRS, 97% of the respondents are expecting 3G will provide faster internet access.

- It is inferred that out of 89 respondents who opt 3G BSNL service,56% of the respondents prefer Nokia's N95 mobile brand for 3G service.

- It is inferred that out of 89 respondents who opt 3G BSNL service, 56% of the

- It is inferred that out of 89 respondents who opt 3G service, 86% of the respondents will have parallel service of 3G to their preferred network.

- It is inferred that out of 89 respondents who opt 3G service, 57 % of the respondents will recommend 3G service to their friends and relatives.

SUGGESTIONS

- The respondents feel that they came to know about 3G through their friends and relatives. Hence effective advertisement must be introduced in all medium, in order to cover large group of people.
- The income is directly related with the pricing of the 3G handsets so according to the needs of the people 3G handsets can be launched in different range of prices to cover all levels of people.
- The respondents expects that BSNL 3G will provide faster access in internet service and if this is implemented in all over India very soon it will helps to improve the global business and standard of living of the people in the country

CONCLUSION

CHAPTER V

Conclusion

Inspite of its own limitations the study has brought out information that would provide the company an insight about the market. Understanding the needs, wants and the gap existing in the market will definitely help the marketer to steal a better share of the people. Hence the organization has to fulfill the purpose of the consumers in the best possible and in turn try to convert the activity more pleasant filled.

It has been identified from the study that people are not more aware of 3G technology. The study reveals that almost all the players in communication network have highly satisfied customers. The comparative study shows the stiff that exists in the market. It is always true that only by developing unique ideas, imitable strengths of own can stave the enemy.

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APPENDIX

QUESTIONNAIRE

CUSTOMER SURVEY ON FORTHCOMING 3G TECHNOLOGY AND SERVICES AMONG NON BSNL USERS IN TIRUPUR

1. Name :

2. Address :

3. Mobile number :

4. Sex **Male** ☐ **Female** ☐

5. Age group :

20-25 ☐ **26-30** ☐ **31-40** ☐ **41-50** ☐ **51-60** ☐

Above 60 ☐

6. Marital status : **Single** ☐ **Married** ☐

7. If married, **family size** : **2** ☐ **3** ☐ **4** ☐ **above** ☐

8. Number of mobiles presently in use by the family:

1 ☐ **2** ☐ **3** ☐ **4** ☐ **above 4** ☐

9. Education: school level ☐ graduate ☐ post graduate ☐ & higher ☐

10. Occupation :

Business ☐ Salaried ☐ Self employed ☐ Student ☐

Others (Please specify) ☐

11. Monthly income.

☐ ☐ ☐

Less than Rs. 5000/- Rs. 5000/- to Rs. 15000/- Rs. 15001/- to Rs. 25000/-
More than Rs. 25000/- ☐

12. Please indicate network you currently use
Airtel ☐ Reliance ☐ Tata indicom ☐ Aircel ☐ vodafone ☐

13: Please state the mobile brand you own now:..........................

14. Do you avail post paid ☐ pre paid ☐

15. Average monthly expenses on usage of mobile : Rs.............

16. Do you aware of launching of 3G Technology in Coimbatore and Tirupur?

a)Yes ☐ b) No ☐

17. You came to know about 3G Technology through

Print Media [Newspaper / Magazine] ☐ Electronic Media [Radio / Television] ☐
Internet website ☐ Verbal [Friends / Family] ☐

18. Do you think that the service provided by your preferred network is better than BSNL?

Satisfied ☐ Highly satisfied ☐ Neutral ☐ Dissatisfied ☐
Highly dissatisfied ☐

19. Will you opt for 3G mobile service? Yes ☐ No ☐

20. If yes, the features that attracts you

a. Enhanced multimedia (Voice, Data, Video and Remote control) ☐

b. Usability on all popular modes (cellular telephone, e-mail, paging, fax, videoconferencing, and Web browsing). ☐

c. Broad bandwidth and high speed (upwards of 2 Mbps) ☐

d. All above ☐ e. Others (Pl. specify)

21. How often do you use mobile phone in order to access online content?

Very rarely ☐ 1 or 2 times in a day ☐
3 to 5 time a day. ☐ More than 5 time a day ☐

22. Are you satisfied with the prevailing speed of GPRS while browsing internet?

Yes ☐ No ☐

23. If no, do you expect 3G service will provide faster access?

Yes ☐ No ☐

24. Tick the brand do you prefer for 3G service usage?

a) Apple's iphone, ☐ b) Nokia's N95, c) Sony ☐ sson's W950i, ☐

d) LG's KE850 ☐ Others (Please specify) ☐

25. Can you suggest the prize range that you may buy for 3G Mobile hand set

Below 5000 ☐ 5000 to 10000 ☐ 10001 to 20000 ☐

20000 to 30000 ☐ above 30000 ☐

26. Would you like to avail the 3G parallel in spite of your preferred network?
yes ☐ No ☐

27. Will you recommend for your family and friends to use BSNL 3G services?

Yes ☐ No ☐

28. Any suggestion in respect with 3G service: