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A STUDY ON CUSTOMER PERCEPTION AND PATRONAGE OF FORTHCOMING 3G TECHNOLOGY BY BSNL IN COIMBATORE WITH REFERENCE TO BUSINESS INDIVIDUAL

A PROJECT REPORT
SUBMITTED BY
S.ARASI
REG NO: 0820400003

In the partial fulfillment of the requirements of Anna University Coimbatore for the award of the degree of Master of Business Administration

KCT BUSINESS SCHOOL
DEPARTMENT OF MANAGEMENT STUDIES
KUMARAGURU COLLEGE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
COIMBATORE 641 006
AUGUST 2009

KCT BUSINESS SCHOOL
DEPARTMENT OF MANAGEMENT STUDIES
KUMARAGURU COLLEGE OF TECHNOLOGY
COIMBATORE 641 006

BONAFIDE CERTIICATE

Certified that this project titled '**A STUDY ON CUSTOMER PERCEPTION AND PATRONAGE OF FORTHCOMING 3G TECHNOLOGY BY BSNL IN COIMBATORE WITH REFERENCE TO BUSINESS INDIVIDUAL**' is the bonafide work of Ms.Arasi.S (Reg No: 0820400003) who carried out the 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 dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

.....
Facultyguide

.....
Director

Evaluated and viva-voce conducted on.....

INTERNAL EXAMINER

EXTERNAL EXAMINER

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. HARASI - 08 MBA 03 .....

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, S.Arasi (Reg No.0820400003), final year MBA student of Department of Management Studies, Kumaraguru College of Technology, hereby declare that the project entitled "**A Study On The Customer Perception And Patronage Of Forthcoming 3G Technology By BSNL In Coimbatore With Reference To Business Individual**" has done by me under the guidance of Prof. Mr.K.R.Ayyaswamy, submitted in partial fulfillment for the award of the degree off Master of Business Administration of Anna University, 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

Signature of the Candidate

S. Arasi

(S.Arasi)

ACKNOWLEDGEMENT

I, first express my deep gratitude to the almighty for making me to complete this project successfully.

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 wish to express my sincere thanks to Prof. S.V.Devanathan- Director, KCT Business School, for his continuous encouragement though out my project.

I owe my hearty gratitude to Prof. K.R.Ayyaswamy, Lecturer KCT Business School, for the help and guidance given to me throughout my project.

I express my sincere thanks to BSNL and its staffs who helped me to carry out this project.

Finally I wish to thank my parents, friends and all other faculty members, who helped me in completing this project successfully.

S.ARASI

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EXECUTIVE SUMMARY

The telecommunication industry in India has witnessed an immense growth in the past few years. During the past few decades, the mobile telecommunications industry experienced exponential growth both in terms of subscribers as well as new types of value-added services. Mobile phones are rapidly becoming the preferred means of personal communication.

Telecommunications service providers and network operators are embracing the recently adopted global third generation (3G) wireless standards in order to address emerging user demands and to provide new services. The concept of 3G wireless technology represents a shift from voice-centric services to multimedia-oriented (voice, data, video, fax) services.

3G is the next generation mobile communications systems. It enhances the services such as multimedia, high speed mobile broadband, internet access with the ability to view video footage on your mobile handset. With a 3G phone and access to the 3G network you can make video calls, watch live TV, access the high speed internet, receive emails and download music tracks, as well as the usual voice call and messaging services found on a mobile phone, like person to person video, live

streaming, downloadable video of entertainment, news, current affairs and sport content and video messaging.

In India, Bharat Sanchar Nigham Limited is the first company to launch 3G services. It has planned to launch its 3G services all over India. In South India it has planned to launch its 3G services in many places and one among them is Coimbatore.

Against this background this study has been conducted to know the market potential for upcoming 3G technology in mobile service to be provided by Bharat Sanchar Nigam Limited (BSNL) in Coimbatore. The study aims to examine the customer perception, regarding the 3G technology to be introduced by BSNL with reference to business individuals. It also aims to identify the customer price expectation and the preferable brand for the service.

The study is conducted through the primary data. A sample of hundred customers in Coimbatore city was selected on convenience basis and data has been collected with the help of questionnaire. The questionnaire has been designed in such a way tapping the details regarding the respondents business details, education level, gender, income level, their knowledge regarding the technology, their price expectation, and their level of acceptance.

The analysis has been made based on the data collected and the results reveal that there is wide scope for the launch of BSNL's 3G technology in mobile phones.

The study reveals that the majority of the customers will recommend for 3G technology by BSNL. They will opt for the service if it is in the prize range specified by them.

The final suggestion made to the concern is to carry out more promotional activities regarding the launch of 3G technology and to provide the 3G service at the customer expected prize range.

INTRODUCTION

1.1 Background of the Study:

The Indian Telecommunications network with 110.01 million connections is the fifth largest in the world and the second largest among the emerging economies of Asia. Today, it is the fastest growing market in the world and represents unique opportunities for U.S. companies in the stagnant global scenario.

At present the Indian Telecommunication has seen a drastic revolution and the telecom network in India is the fifth largest network in the world meeting up with global standards. Presently, the Indian telecom industry is currently slated to an estimated contribution of nearly 1% to India's GDP.

The recently developed technology in telecom industry is 3G. 3G is one of the latest technologies to be incorporated into mobile devices today. With 3G people are able to gain access to data and information at almost anytime and from any place.

The concept of 3G wireless technology represents a shift from voice-centric services to multimedia-oriented (voice, data, video, fax) services. 3G cellular phones were first launched in Japan in October 2001 and were introduced into South Africa in December 2004. This phone was designed

so users would be able to surf the Internet, view pictures of the people they are talking to, watch movies and listen to music on their handsets (BBC News, 2001).

In addition, heavy demand for remote access to personalized data is fueling development of applications, such as the Wireless Application Protocol (WAP) and multimedia management, to complement the 3G protocols. Complementary standards, such as Bluetooth, will enable interoperability between a mobile terminal (phone, PDA etc.) and other electronic devices, such as a laptop/desktop and peripherals, providing added convenience to the consumer and allowing for the synchronization and uploading of information at all times.

In India, Bharat Sanchar Nigam Limited is launching its 3G technology service in many of the metropolitan cities. One among those cities is Coimbatore. It has planned to launch its 3G service in Coimbatore too. Before its launch of 3G service, it has to study the customer's perception and the market potential for it. BSNL is offering on its 3G services like Video call facility, Mobile broadband, and Mobile TV content available on BSNL 3G Portal etc.

Against this background a study has been conducted on the customer perception and patronage towards the forthcoming 3G technology by BSNL with reference to business individuals. Telecommunication plays a major role in each and every day of the business.

With upcoming technologies in telecom industry the businesses has taken up a new face. So the launch of 3G will play a major role in businesses. So the study mainly focuses on market potential for 3G technology among business individuals. If the launch has been successfully carried out it will results in a drastic changes and development in business sector.

1.2 REVIEW OF LITERATURE

Dulyalak Phuangthong and Settapong Malisawan, Ph.D.,[1] This article explains how the 3G technology is to be used in education system. Nowadays education tends to go out of the campus. The rapid growth of mobile users will push educational institutions to adopt mobile learning solutions. The IT and telecommunication industries need to understand what factors will influence the users' intention to adopt m-learning technology to support their implementation. In Thailand, there is lack of studies investigating the users' intention to adopt this new technology, particularly focused on the Thai culture and society. Therefore, this research-in-progress paper primarily aims to examine the factors affecting the user adoption in mobile learning on 3G mobile Internet technology in Thailand by using technology acceptance model (TAM). This study will be primarily beneficial to the e-learning community since they will understand the innovators' and non innovators' perception towards the m –learning.

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[1] A Study of Behavioral Intention for 3G Mobile Internet Technology:

Preliminary Research on Mobile Learning.

Dulyalak Phuangthong and Settapong Malisawan, Ph.D.College of Management

Mahidol University, Thailand.

Professor Madden,[2] This study analyse the adoption of 3G technologies and its impact on economic growth. According to Curtin Business School in Western Australia, there's indications of a direct link between the timely adoption of 3G mobile technologies and economic growth, and the school's Professor Gary Madden says that Thailand has lagged in the adoption of 3G technology, Sweden has adopted some 3G, while Japan's take up of 3G has been comprehensive. The study says that while investment in 3G technologies can have a positive impact on economic growth, "government policies that delay the investment process can cause substantial economic loss."The research, to be conducted in conjunction with prominent universities in Thailand, Sweden and Japan, with funding from various telecommunications organizations in those countries - and led by Professor Madden - will analyse current 3G mobile usage and subscription intentions using consumer data from Thailand, Sweden and Japan. The research results would produce a unique insight into the potential for economic development from adopting 3G technology in a country like Thailand.

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[2] Professor Madden, director of Curtin's communication economics and electronic markets (CEEM) research centre, Sweden.

Colin Ong TS, [3] This study analysis the market potential for the 3G technology in mobiles. It analysis the technology development and the growth of wireless mobile market. Mobile commerce is the next stage of e-commerce, where we have the integration of the physical world with the digital world. It also studies the 3G technology with work dynamics, mobile job interviewing, mobile advertising etc., It also studies the challenges ahead and the scope for it. To conclude, 3G is definitely here to stay despite the early glitches. The opportunity of being truly wireless and mobile is just too enticing.

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[3] Colin Ong TS is the Managing Director of MR=MC Consulting Pte Ltd (www.mrmc.com.sg).

Erik Dahlman, Hannes Ekström, Anders Furuskär, Ylva Jading, Jonas Karlsson, Magnus Lundevall, Stefan Parkvall.,[4] This paper gives an overview of the basic radio interface principles for the 3G long-term evolution concept. 3GPP is in the process of defining the long-term evolution (LTE) for 3G radio access, sometimes referred to as Super-3G, in order to maintain the future competitiveness of 3G technology. The main targets for this evolution concern increased data rates, improved spectrum efficiency, improved coverage, and reduced latency. Taken together these result in significantly improved service provisioning and reduced operator costs in a variety of traffic scenarios., including OFDM and advanced antenna solution, and presents performance results indicating to what extent the requirements/targets can be met. It is seen that the targets on three fold user throughput and spectrum efficiency compared to basic WCDMA can be fulfilled with the current working assumptions. More advanced WCDMA systems; employing e.g. advanced antenna solutions may however achieve similar performance gains. Enhancements for reduced latency and IP optimized architectures and protocols are further applicable to both LTE and WCDMA.

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[4] The 3G Long-Term Evolution – Radio Interface Concepts and Performance Evaluation

Erik Dahlman, Hannes Ekström, Anders Furuskär, Ylva Jading, Jonas Karlsson, Magnus Lundevall, Stefan Parkvall

Ericsson Research -[erik.dahlman, hannes ekström, anders.furuskar, ylva.jading, jonas.b.karlsson, magnus.lundevall, stefan.parkvall]@ericsson.com

En Li, Feng Gu, Wei Lu,[5] Along with the advent of 3rd Generation Mobile Standard (3G), topics about 3G license have evoked wide and intensive public attention. Among all questions related to 3G license, the decision of license amount is pivotal to the development of mobile market. This paper studies the optimal amount of 3G licenses in Chinese mobile market. Under the assumption of demand fluctuation, this paper analyzes the real option value of 3G investments via Ito's Lemma and option game theory, thereby working out the optimal license amount, as well as the sub-game Nash equilibrium of the 3G investment game.

Report by RNCOS, [6] 3G technologies have spearheaded economical wireless broadband communications in both developed and emerging markets.. The factors that are encouraging the operators and countries to develop and deploy 3G includes high data speed, access to multimedia services, video conferencing, facilitation of mobility, corporate solutions and so on. There is wide scope of 3G markets in the developing countries with underdeveloped network infrastructure and low per capita income. These countries are continuously involved in their infrastructure development to reap the value of mobility. The report provides thorough analysis on various countries segmented into Key and Emerging markets, like Japan, Republic of Korea, the US, Germany, China, Brazil and India.

[5]A Research on License Amount in 3G Mobile Market Based on Option Game
En Li, Feng Gu, Wei Lu College of Economics and Management, Shanghai Jiao Tong University, Shanghai, 200052China
[6] "3G Market Forecast to 2010", Report by RNCOS

SOURCES FROM NEWSPAPERS:

THE ECONOMIC TIMES

13 Jul 2009:

NEW DELHI: The government today constituted an Empowered Group of Ministers to look into issues relating to spectrum for 3G telephony that will revolutionise the way data is received and transferred from mobile phones. Finance Minister Pranab Mukherjee will head the EGoM that will include eight other members. Deciding the quantum of 3G spectrum to be auctioned, annual spectrum charges and additional administrative charge, number of operators in each telecom circle, the reserve price for 3G and broadband wireless services (WiMax) and the fee to be paid to the auctioneer are among the key terms of reference of the EGoM. The government had last month decided to auction 3G spectrum at a reserve price of Rs 4,040 crore to at least six private operators besides state-owned MTNL and BSNL.

EXPRESS BUZZ

Published: 14 Jul 2009

New Delhi,: Ahead of its 3G services launch, state-run BSNL is getting ready to offer international roaming facility to its subscribers for prepaid, GPRS and 3G services. A senior BSNL official said, as of now BSNL has

signed GSM international roaming agreements for 339 networks in 170 countries, out of which 164 networks in 94 countries have been commercially launched for postpaid customers only. Prepaid and 3G international roaming services are in the process of being launched in the BSNL network and accordingly the testing and launching of these services would also be involved, he said. The direct agreements of BSNL involves only one set of testing for whole of BSNL with the foreign operators for postpaid services. For GPRS, Prepaid and 3G services testing would involve the four zones of BSNL. All the testing would be carried out from BSNL's Kolkata office.

THE FINANCIAL EXPRESS

BSNL gears up for global 3G launch:

The BSNL's TN unit (excluding Chennai) is reportedly planning an Rs 1,000 crore investment for addition of 2.3 million GSM lines including both 2G as well as 3G. Of the 2.3 million lines, 1.9 million lines will fall under 2G. The company plans to rollout its 3G services in the TN circle by March 2009. BSNL aims to provide 3G services in 38 cities and towns in TN.A. Shajahan, Principal General Manager, BSNL, Coimbatore also said that BSNL now had 31,200 broadband connections in Coimbatore and the broadband capacity will further be increased by 31,000.

THE HNDU

Coimbatore:

Bharat Sanchar Nigam Limited (BSNL), Coimbatore, has lined up a slew of launches during the first quarter of 2009, which would include 3G mobile and IPTV service (cable TV on broadband).BSNL officials told reporters at the BSNL Expo here on Wednesday that the company was ready with the logistics and content providers. Before March IPTV (Internet Television) would be made available. BSNL would provide the Set Top Boxes (STBs). BSNL would launch 3G mobile services in Coimbatore and Tirupur (first in the State) with a capacity of 90,000 lines. A total of 250 additional towers were planned for this purpose. BSNL will launch Personalised Ring Back Tones for landlines soon. Broadband would be commissioned in all exchange areas by March 31, 2009. Wi-Max is planned in 17 sub-urban and rural exchanges and would be commissioned during 2009-2010. All exchange systems are connected through Optic Fibre network. Principal General Manager of BSNL, A. Shajahan, General Manager (Operations) G. Muralidharan, Deputy General Managers Jacob Francis (Planning), D. Porpathasekaran (Marketing), S. Karthikeyan (Finance) attended the meeting.

1.3 STATEMENT OF THE PROBLEM

In India, the telecom industry has seen a drastic growth with the introduction of newly developed technologies. The recently introduced technology is 3G technology in mobile phones. In India BSNL has first launched the 3G technology. It has planned to launch it 3G services in Coimbatore. Before the launch of this technology the customer's perception in terms of prize range, mobile brand etc should be studied. This is identified as the problem area and the study has attempted to address the above said issues with respect to BSNL.

1.4 OBJECTIVES

Primary Objective:

- To study the market potential for the launch of 3G technology and services by BSNL at Coimbatore with reference to business individuals.

Secondary Objective:

- To study the scope for the launch of 3G technology and services by BSNL for the business individuals.
- To find out the level of customer acceptance for the launch of 3G technology and services by BSNL.
- To identify the profile and expectation of respondents towards the 3G technology of BSNL.

1.5 SCOPE OF THE STUDY

This research gives a broad frame work about the customers of BSNL and an analysis about their attitude and perception towards the launch of 3G technology. This research would help to identify market potential for the introduction of 3G technology by BSNL with reference to the business individuals. This study has been conducted in Coimbatore city with a sample size of 100 respondents.

1.6 RESEARCH METHODOLOGY

a) Type of Study:

The type of the study is descriptive study since it describes the market potential for the launch of 3G technology.

b) Sampling Design:

The sampling design consists of sampling method and sampling size. The Sampling method used is judgment method of sampling. The Sample size is 100 respondents from the customers of BSNL belonging to business individual category in Coimbatore city.

c) Method of Data Collection:

The data is collected through primary data. The method used to collect the data is through questionnaires and schedules.

d) Tools for Analysis:

- Percentage Analysis
- Chi-square test

Percentage Analysis:

Percentage analysis is used to describe the profile of the respondents

Chi-Square Test:

Chi-Square test is one of the most widely used non-parametric tests. Chi-Square is applied in statistics to test the independence of attributes. In this study it is used to identify the relationship between the prize range and the income level of the customers.

1.7 LIMITATIONS:

The limitations of the study are as follows:

- The respondents are selected based on the convenience sampling.
- The study is limited to 100 respondents due to time constraint.

CHAPTER – 2

ORGANISATION PROFILE

2.1 History of the Organization:

On October 1, 2000 the Department of Telecom Operations, Government of India became a corporation and was renamed Bharat Sanchar Nigam Limited (BSNL).BSNL is now India's leading telecommunications company and the largest public sector undertaking. It has a network all over India. The state-controlled BSNL operates basic, cellular (GSM and CDMA) mobile, Internet and long distance services throughout India.

BSNL has installed Quality Telecom Network in the country and now focusing on improving it, expanding the network, introducing new telecom services with ICT applications in villages and wining customer's confidence. cities/towns and 5.5Lakhs villages.

BSNL is the only service provider, making focused efforts and planned initiatives to bridge the Rural-Urban Digital Divide ICT sector. In fact there is no telecom operator in the country to beat its reach with its wide network giving services in every nook & corner of country and operates across India except Delhi & Mumbai. BSNL serves its customers with its wide bouquet of telecom services.

BSNL is numero uno operator of India in all services in its license area. The company offers vide ranging & most transparent tariff schemes designed to suite every customer. BSNL cellular service, CellOne, has more than 49.09 million cellular customers, garnering 16.98 percent of all mobile users in its area of operation as its subscribers. In basic services, BSNL is miles ahead of its rivals, with 35.1 million Basic Phone subscribers i.e. 85 per cent share of the subscriber base and 92 percent share in revenue terms.

BSNL has more than 2.5 million WLL subscribers and 2.5 million Internet Customers who access Internet through various modes viz. Dial-up, Leased Line, DIAS, Account Less Internet (CLI). BSNL has been adjudged as the NUMBER ONE ISP in the country.

BSNL has set up a world class multi-gigabit, multi-protocol convergent IP infrastructure that provides convergent services like voice, data and video through the same Backbone and Broadband Access Network. At present there are 0.6 million DataOne broadband customers. The company has vast experience in Planning, Installation, network integration and Maintenance of Switching & Transmission Networks and also has a world class ISO 9000 certified Telecom Training Institute.

The recent technology, the BSNL planned to launch is 3G services in the mobile phone. It has been already launched in some of the cities and going to be launched in other cities. During July 2009 Bharat Sanchar Nigam Limited (BSNL) is planned launch a multi-city, on-ground activation to talk to customers about its 3G services.

The campaign, which began on July 1, is on a two-month pilot run in 15 cities – Kolkata, Bhubaneswar, Lucknow, Patna, Kanpur, Varanasi, Ambala, Karnal, Jalandhar, Shimla, Jaipur, Jodhpur, Udaipur, Dehradun and Agra.

For executing the campaign, the agency divided the 15 cities into Category A, B and C. While Category A cities were Lucknow, Jaipur and Kolkata, Category B comprised Bhubaneswar, Patna, Kanpur, Varanasi, Shimla, Jodhpur, Udaipur, Dehradun and Agra. The remaining cities came under Category C.

BSNL will take the feedback from the pilot run, and then, depending on the response the initiative gets, the campaign will be extended to other cities.

THE 3G TECHNOLOGY

3G Defined

3G stands for the third generation of wireless communication technology and the industry direction are to raise speeds from 9.5K to 2M bit/sec. According to 3gnewsroom.com, devices will fall into four categories. The first category includes the basic 3G phones will be used mainly for talking and will store all their information on the network. The second category will support video-streaming, and will provide the user with news and web content. More sophisticated models will be information centres which let users download information from the Internet and store data on the device.

3G and the Growth of the Wireless Mobile Market

The wireless mobile market is set to explode and this will provide fresh graduates with exciting job opportunities. According to Will Daugherty's The Growth of Wireless Mobile in Business 2.0, there will be 3 waves of mobile data services. The first wave is linked wireless access to existing information and data applications. The current second wave takes advantage of wireless-specific functionality. The third wave will bring rich graphics, video, real-time multiplayer games.

BENEFITS OG 3G TECHNOLOGY

With 3G you can do everything you do now, but you can do it much better, a lot faster and from almost anywhere! Some of the main advantages are that 3G allows for higher call volumes and supports multimedia data applications such as video and photography (3G Newsroom.com)

- **Video calling**

  With 3G you can now actually see the person on the other side! As long as both people have a 3G phone you no longer have to imagine what they look like and you can see them face-to-face via your cell phone's screen.

- **Obtaining information and news**

  With 3G technology it is possible to access any site on the Internet by using your phone as a modem with your laptop. You can use your favourite search engines to find information on the weather, the daily news, stocks and shares, or practically any other information you require to ensure that you are continually on top of things.

- **E-mail**

  Should you have left your office and forgotten to send an important e-mail, you are now able to quickly and efficiently perform this function directly by using your cell phone. Alternatively, you can use

your cell phone as a modem to be connected to your laptop or PDA (Personal Digital Assistant).

- **Games**

  Since the invention of cell phones, games have always formed a part of mobile devices. As technology has developed, the games we are able to engage in have become far more interactive, exciting and entertaining. For those who play games over their mobile devices for recreation purposes or for those who simply play to pass the time, 3G now makes it possible to download these games at anytime and from almost anywhere.

- **Film**

  The speed and quality of 3G really contributes to enhancing the quality of film over mobile devices. One is now able to view film trailers, reviews, and interviews, download ring tones, wall papers and enter competitions all by means of your cell phone.

- **Sport**

  With the incredible sound and video quality of your 3G phone you can view highlights from your favourite matches and you'll always have access to the latest scores.

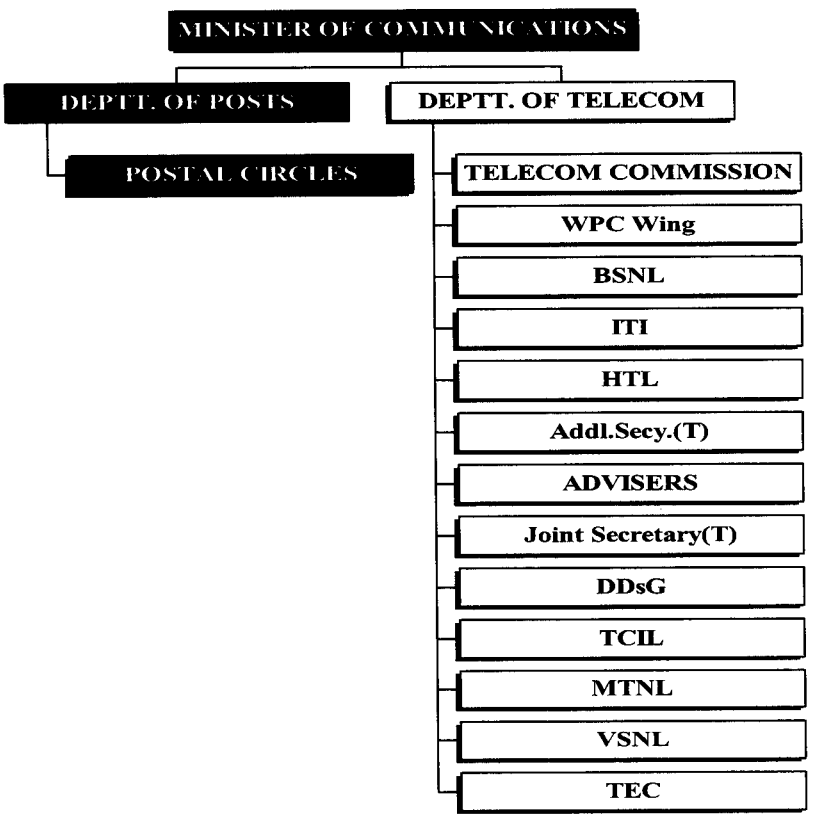
- **Music**

  It's now possible for you to download songs, music videos and interviews. You can even compose your own ring tone through cell phone if you wish

MANAGEMENT

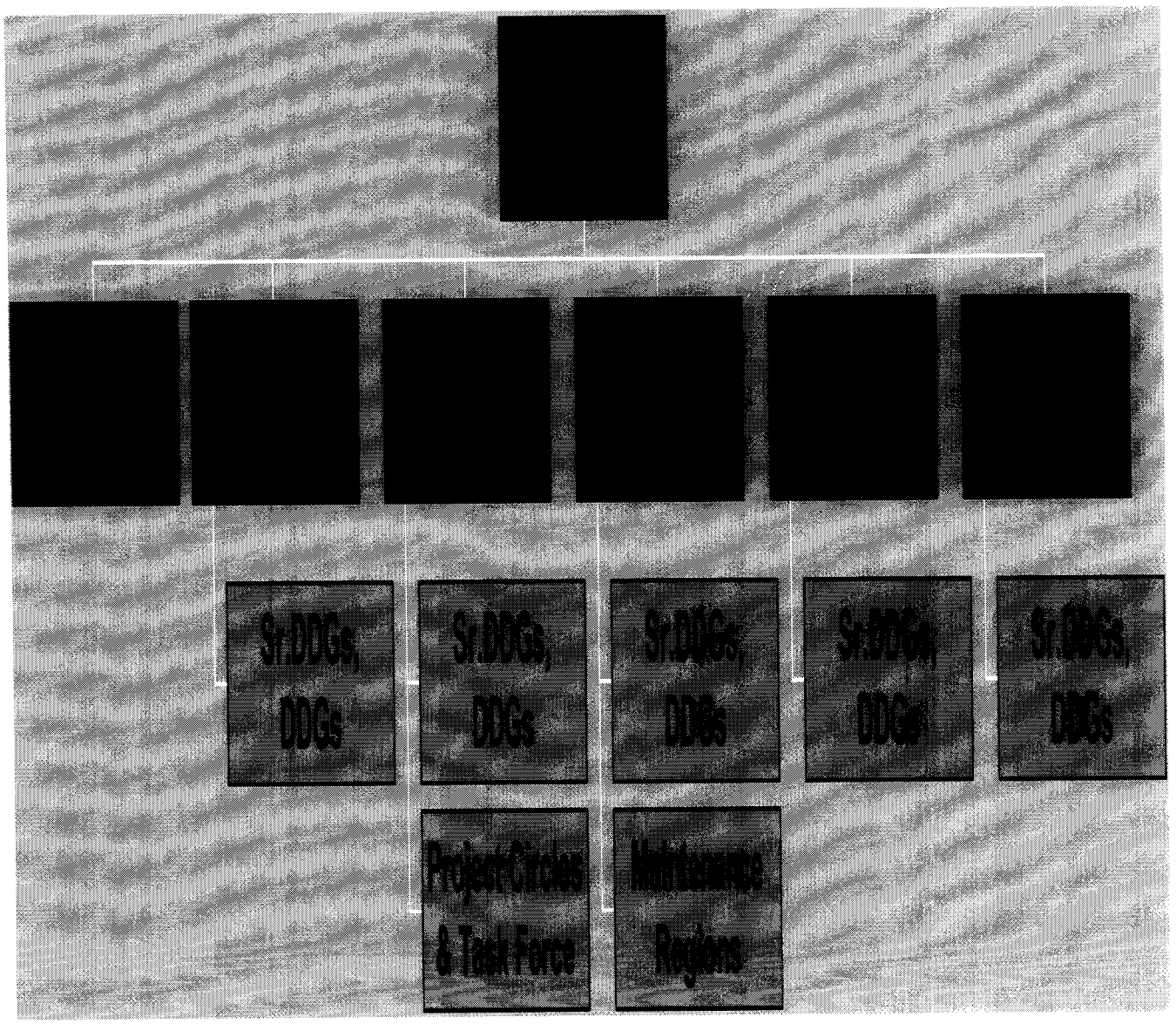
Bharat Sanchar Nigam Limited is the public sector undertaking and it is regulated under the Telecom Regulatory Authority of India (TRAI), the independent regulator.

ORGANISATION OF COMMUNICATIONS MINISTRY



ORGANISATION STRUCTURE

The organization chart of Bharat Sanchar Nigam Limited is as follows:



FUNTIONS OF BSNL

- PLANNING & OPERATION OF TELECOM NETWORK AND SERVICES
- SURVEY, PLANNING, ENGINEERING, MAINTENANCE & OPERATION OF TELEPHONE SERVICE, PHONE PLUS SERVICES AND SOME VALUE ADDED SERVICES IN THE ENTIRE COUNTRY EXCEPT DELHI & MUMBAI.

BSNL, AS PREDOMINANT TELECOM SERVICE PROVIDER OF THE COUNTRY & HAVING STANDING OF MORE THAN 100 YRS., IS OPERATING THE TELECOM NETWORK WHICH IS THIRD LARGEST AMONG DEVELOPING COUNTRIES & NINTH LARGEST IN THE WORL

CHAPTER - 3

DATA ANALYSIS AND INTERPRETATION

PERCENTAGE ANALYSIS

3.1 PROFILE OF THE RESPONDENTS

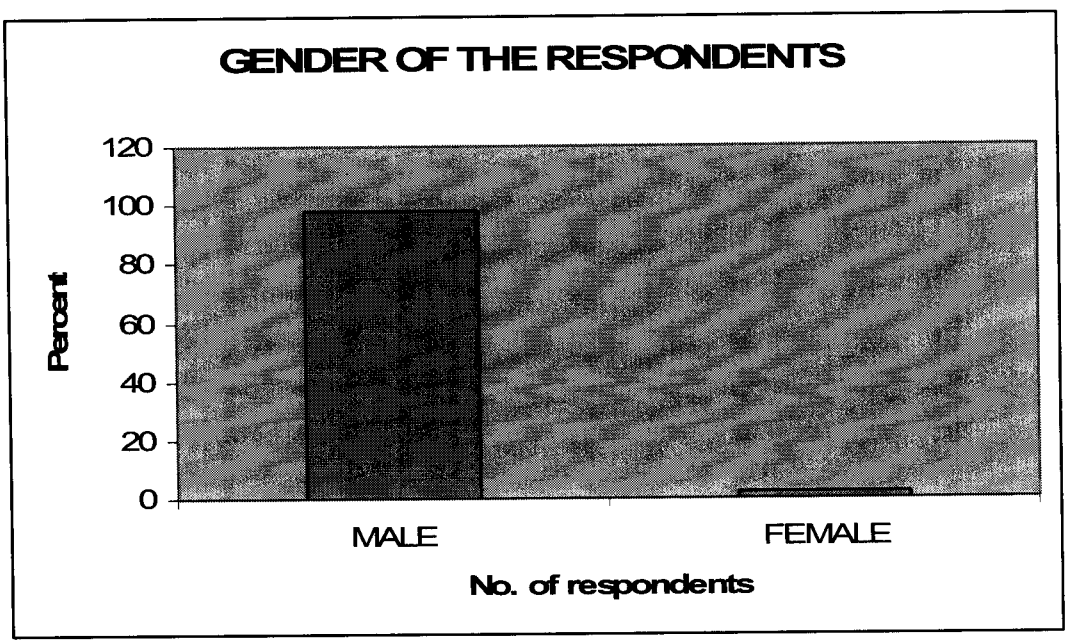
The following tables and respective interpretations describes about the profile off the respondents considered for the study.

TABLE- 3.1.1

GENDER OF THE RESPONDENTS

GENDER	NO. OF RESPONDENTS	PERCENT
MALE	98	98
FEMALE	2	2
TOATL	100	100

CHART -3.1.1



INFERENCE:

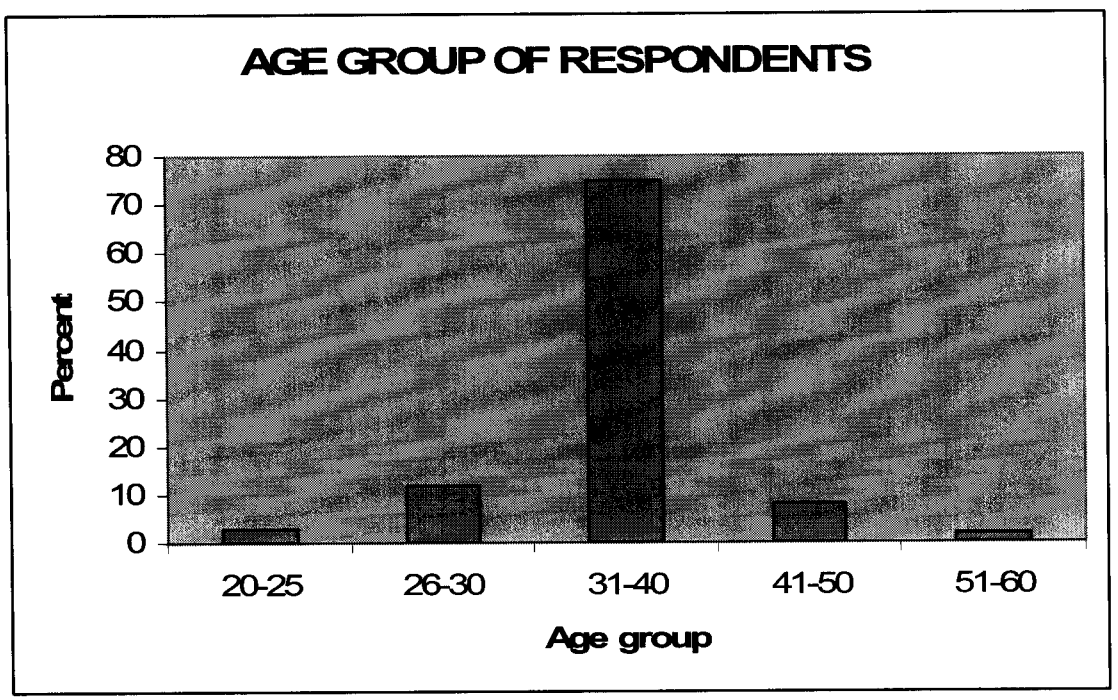
It is inferred from the table that among the respondents 98% were male and 2% were female. The majority were male because more male indulges in the individual business.

TABLE – 3.1.2

AGE GROUP OF THE RESPONDENTS

AGE GROUP	NO. OF RESSPONDENTS	PERCENT
20-25	3	3
26-30	12	12
31-40	75	75
41-50	8	8
ABOVE 50	2	2
TOTAL	100	100

CHART -3.1.2



INFERENCE

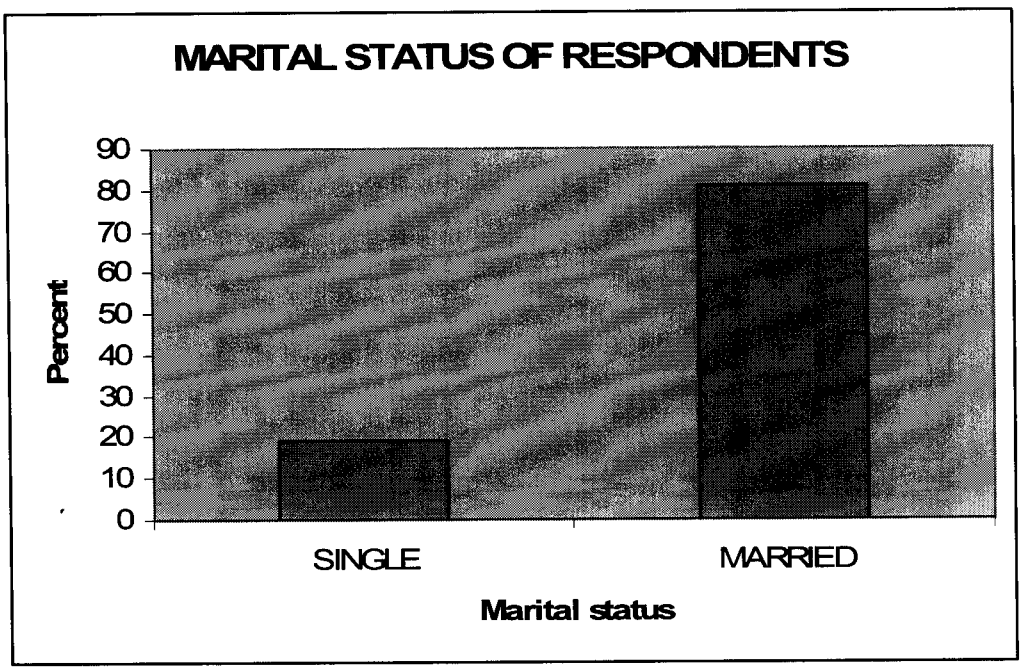
From the above table it is inferred that among the respondents 3% were between the age group 20-25 years, 12% were between 26-30 years, 75% were between 31-40 years, 8% were between 41-50 years and 2% were above 50 years. Majority of the respondents belong to the age group of 31-40 years because they indulge in their individual business and others take up the job opportunities.

TABLE – 3.1.3

MARITAL STATUS OF THE RESPONDENTS

MARITAL STATUS	NO. OF RESPONDENTS	PERCENT
SELF	81	81
MARRIED	19	19
TOTAL	100	100

CHART -3.1. 3



INFERENCE

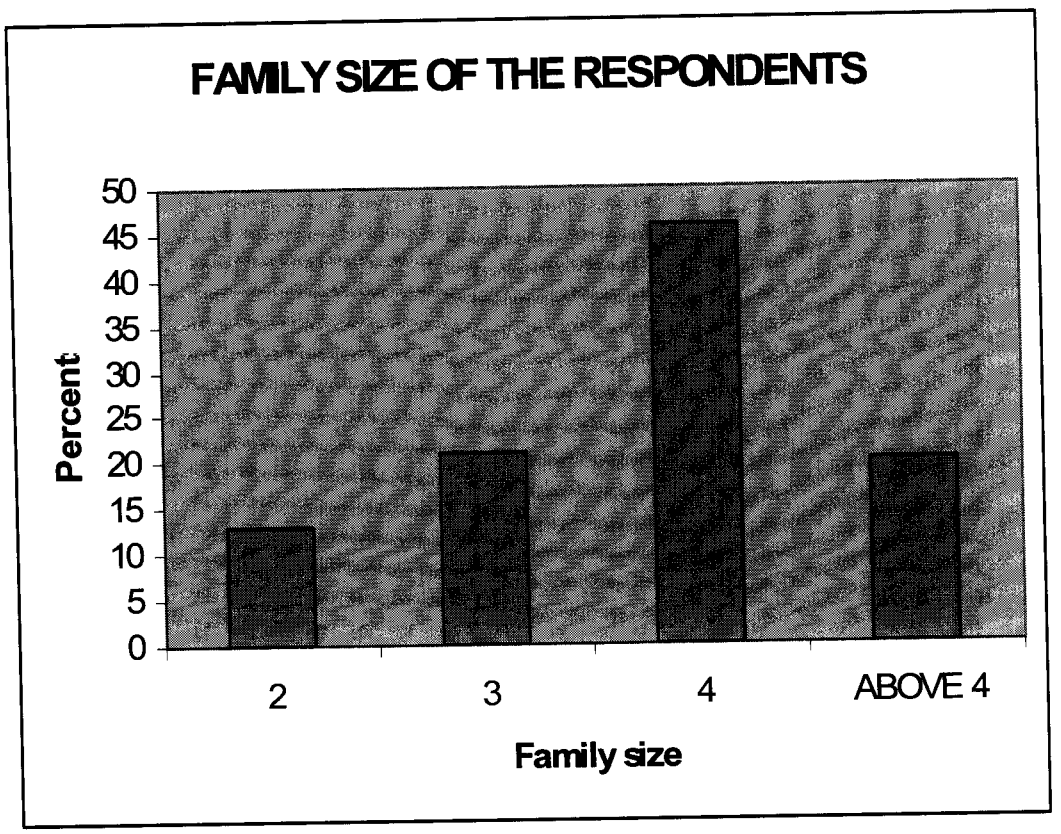
From the table it is inferred that among the respondents 81% were married and 19% were unmarried. The majority of the respondents were married because the majority of the respondents belong to the age group of 31-40 years.

TABLE – 3.1.4

FAMILY SIZE OF THE RESPONDENTS

FAMILY SIZE	NO. OF RESPONDENTS	PERCENT
2	13	13
3	21	21
4	46	46
ABOVE 4	20	20
TOTAL	100	100

CHART – 3.1.4



INFERENCE

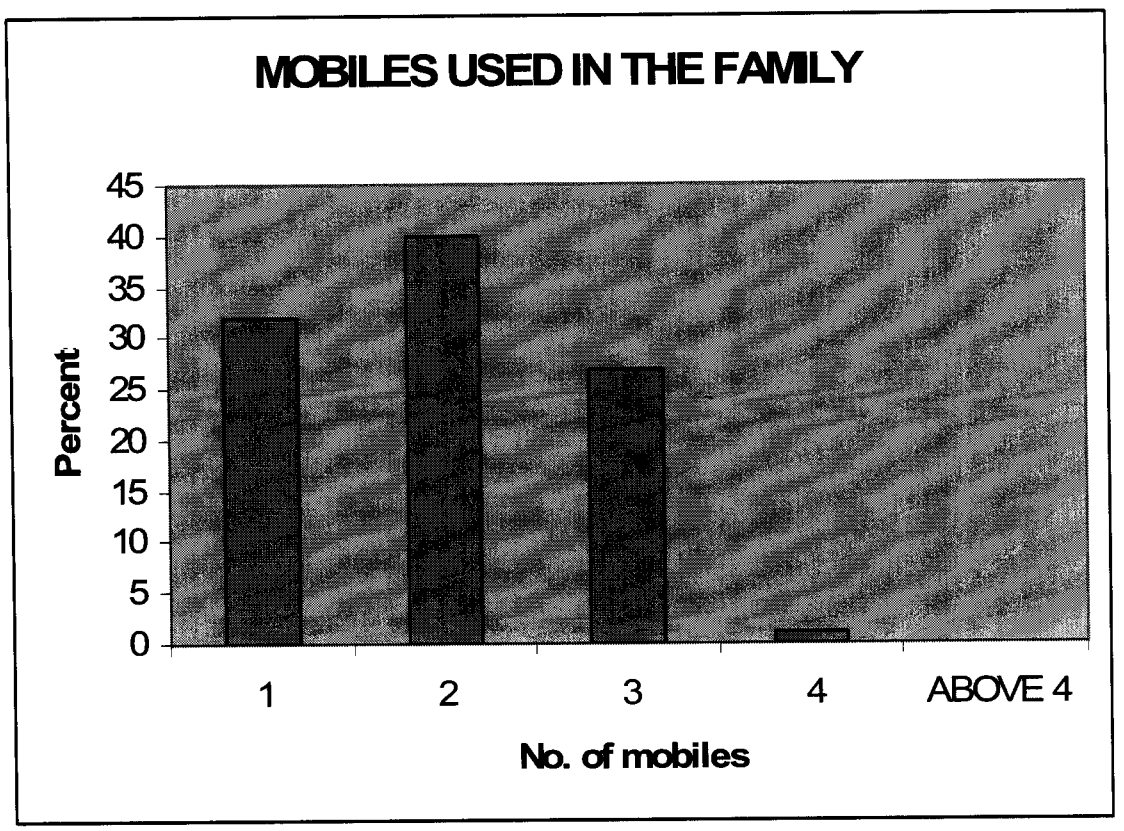
From the above table it is inferred that among the respondents 13% belongs to the family size of two, 21% belongs to three, 46% belongs to four, and 20% belongs to above four. The majority of the respondents belong to the family size of four because majority of the respondents are married.

TABLE – 3.1.5

NUMBER OF MOBILES USED IN FAMILY

MOBILES USED IN FAMILY	NO. OF RESPONDENTS	PERCENT
1	32	32
2	40	40
3	27	27
4	1	1
ABOVE 4	0	0
TOTAL	100	100

CHART -3.1.5



INFERENCE:

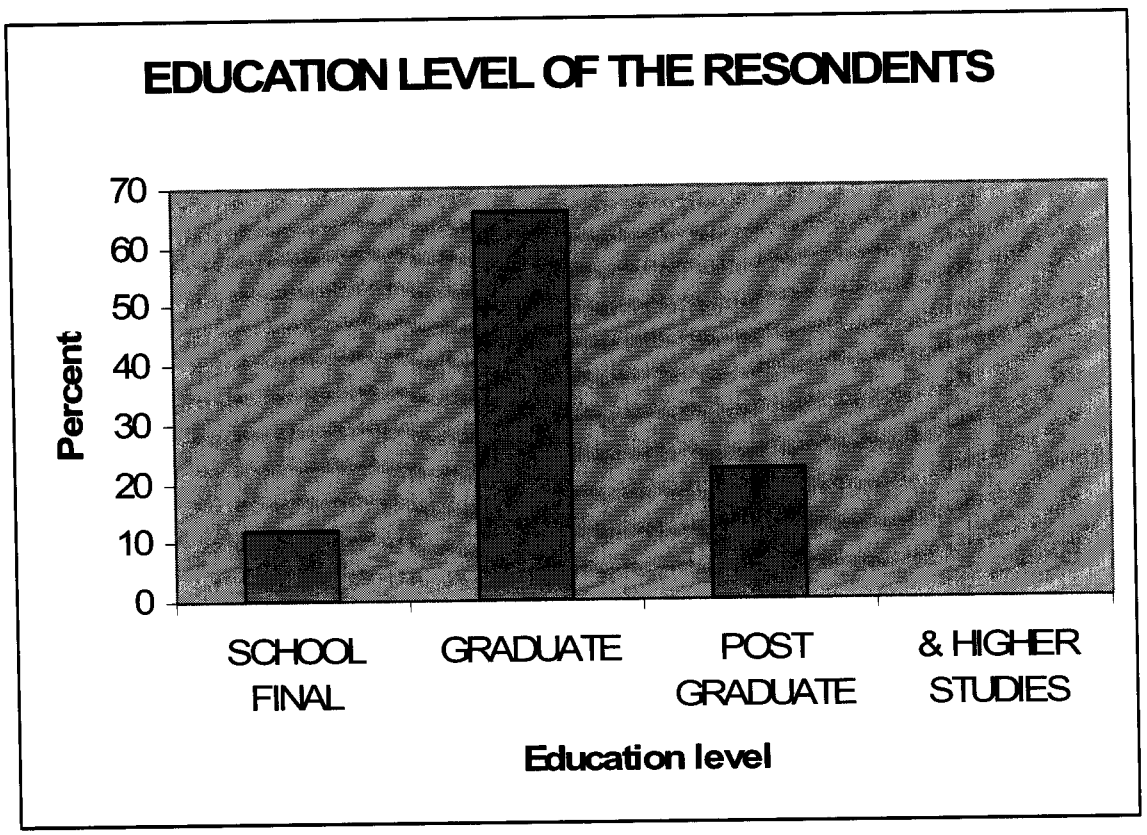
From the above table it is inferred that among the respondents 32% uses one mobile, 40% uses two mobiles, 27% uses three mobiles and 1% uses four mobiles. The majority of the respondents use two mobiles because their family size is more than two.

TABLE – 3.1.6

EDUCATION LEVEL OF THE RESPONDENTS

EDUCATION LEVEL	NO. OF RESPONDENTS	PERCENT
SCHOOL FINAL	12	12
GRADUATE	66	66
POST GRADUATE	22	22
& HIGHER STUDIES	0	0
TOTAL	100	100

CHART -3.1.6



INFERENCE

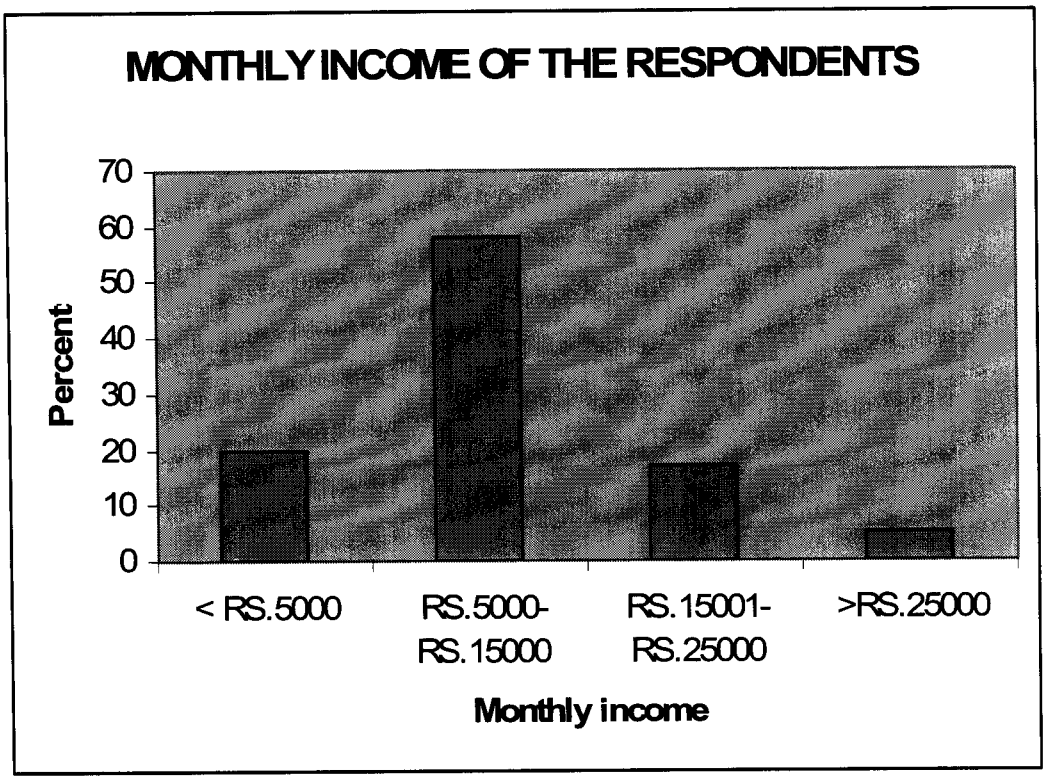
From the above table it is inferred that, among the respondents 12% completed their school final, 66% had completed their graduation and 22% had completed their post graduation. The majority of the respondents have completed their graduation because mostly the graduated people enter in to the business sector. Only few school final have enter the business because they take up the other kind of jobs.

TABLE – 3.1.7

MONTHLY INCOME OF THE RESPONDENTS

MONTHLY INCOME	NO. OF RESPONDENTS	PERCENT
< RS.5000	20	20
RS.5000-RS.15000	58	58
RS.15000-RS.25000	17	17
>RS.25000	5	5
TOTAL	100	100

CHART -3.1.7



INFERENCE

From the above table it is inferred that among the respondents 20% belongs to the income slab <Rs.5000, 58% belongs to the slab Rs. 5000-Rs.15000, 17% belongs to the slabRs.15000-Rs.25000 and 5% belongs to >Rs.2500.The majority of the respondents belongs to the income slab of Rs.5000 – Rs.15000 because they people indulge in the small business activities which could earn them a mediocre level of income. About 17 % earn more than Rs.5000 and below Rs.25000 because they indulge in business activities in a larger number.

3.2 MOBILE USAGE BY THE RESPONDENTS

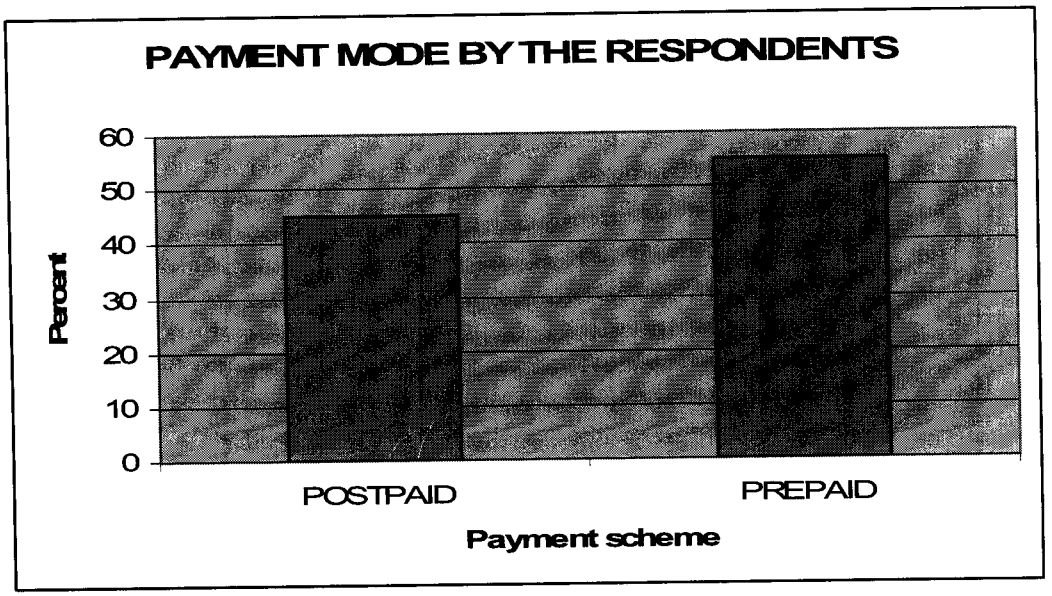
The following table and respective interpretation describes the mobile usages by the respondents and their payment mode.

TABLE – 3.2.1

PAYMENTMODE OF THE RESPONDENTS

PAYMENT MODE	NO. OF RESPONDENTS	PERCENT
POSTPAID	45	46
PREPAID	55	54
TOTAL	100	100

CHART – 3.2.1



INFERENCE

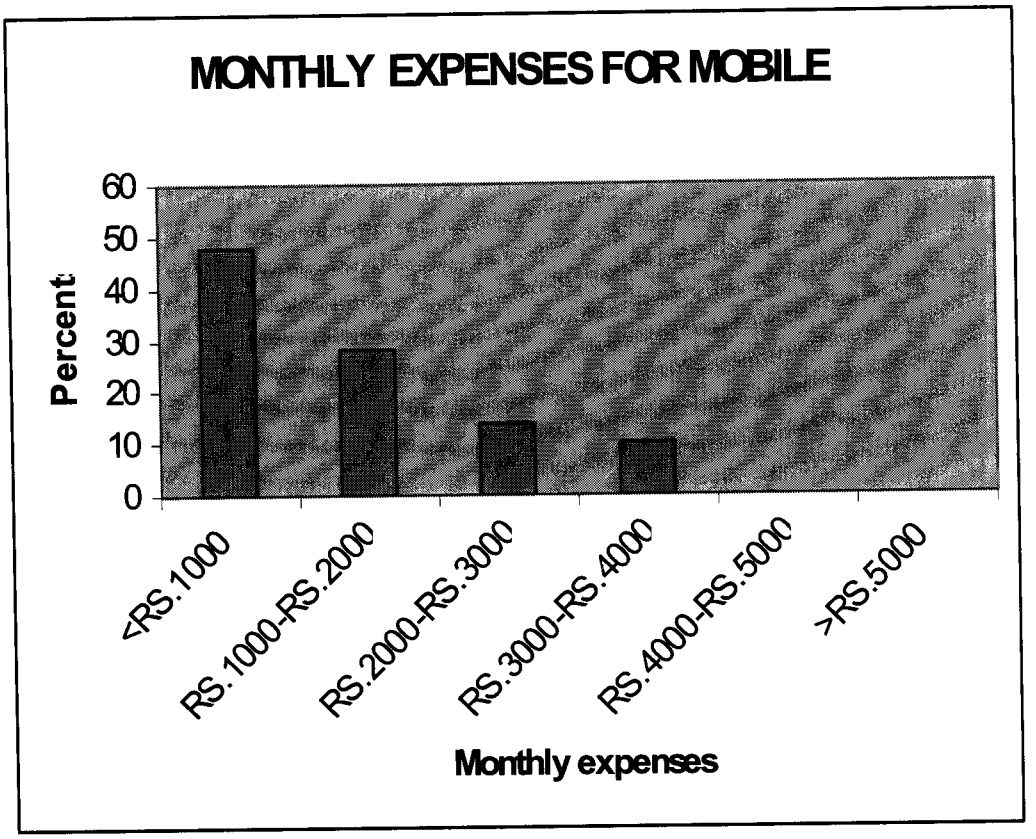
From the above table it is inferred that, among the respondents 44% makes the payment under post paid scheme and 56% makes the payment under pre paid scheme. The majority of the people (56%) make payment under the prepaid scheme because they think that it is more convenient than making payment under the postpaid scheme.

TABLE – 3.2.2

MONTHLY EXPENSES OF THE RESPONDENTS

MONTHLY EXPENSES	NO. OF RESPONDENTS	PERCENT
<RS.1000	48	48
RS.1000-RS.2000	28	28
RS.2000-RS.3000	14	14
RS.3000-RS.4000	10	10
RS.4000-RS.5000	0	0
>RS.5000	0	0
TOTAL	100	100

CHART – 3.2.2



INFERENCE:

From the above table it is inferred that among the respondents 48% incur monthly expenses <Rs.1000 for the mobile usage, 28% incur the mobile expenses between Rs.1000-Rs.2000, 14% incur mobile expenses between Rs.2000-Rs.3000, and 10% incur mobile expenses between Rs.3000-Rs.40

3.3 3G TECHNOLOGY AWARENESS AMONG THE RESPONDENTS

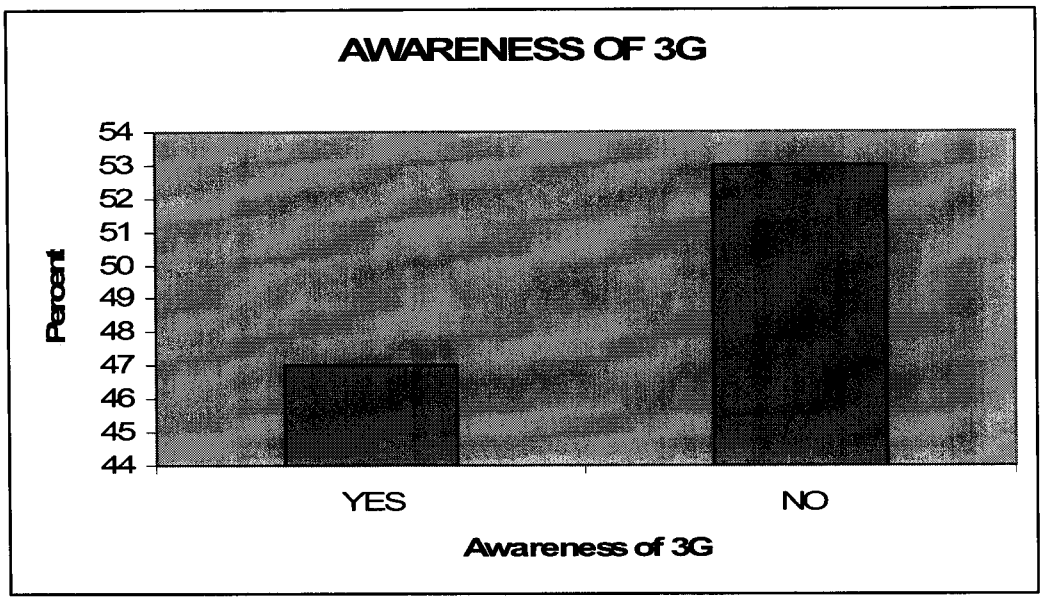
The following tables and the respective interpretation describes the awareness regarding the 3G technology among individuals and the sources of information

TABLE – 3.3.1

AWARENESS REGARDING 3G

AWARENSS OF 3G	NO. OF RESPONDENTS	PERCENT
YES	47	47
NO	53	53
TOTAL	100	100

CHART – 3.3.1



INFERENCE:

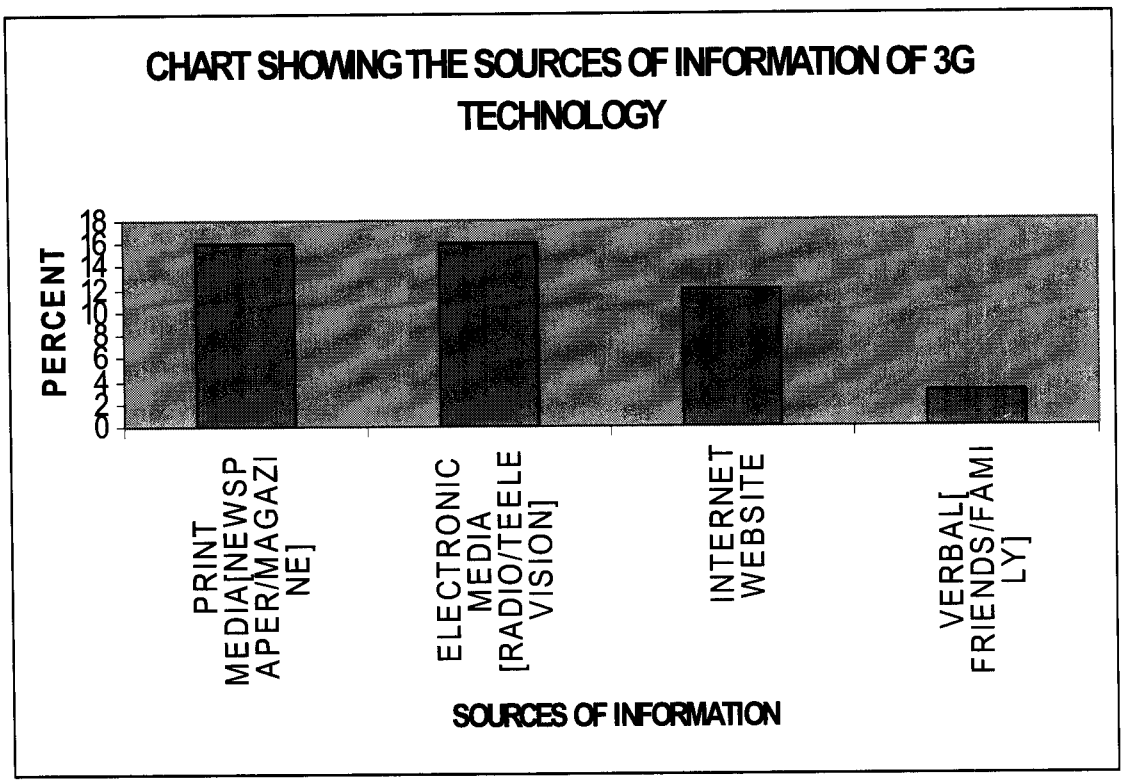
From the above table it is inferred that among the respondents 47% were aware of 3G technology and 53% are unaware of 3G technology. The 47% were unaware because there were no promotional activities by the company.

TABLE- 3.3.2

SOURCES OF INFORMATION FOR 3G

SOURCES OF INFORMATION ON 3G	FREQUENCY	PERCENT
PRINT MEDIA[NEWS PAPER/ MAGAZINE]	16	34
ELECTRONIC MEDIA[RADIO/ TELEVISION]	16	34
INTERNET WEBSITE	12	25
VERBAL [FRIENDS/FAMILY]	3	7
TOTAL	47	100

CHART – 3.3.2



INFERENCE:

From the above table it is inferred that among the respondents who were aware of the 3G technology came to know it from various sources. 34% of the respondents came to know it from print media, 34% from the electronic media, 25% from the internet and 7% from verbal contact. More respondents were aware through the print and electronic media because more advertisements were made for the 3G in these media, to cover those segments.

3.4 ACCEPTANCE LEVEL FOR 3G

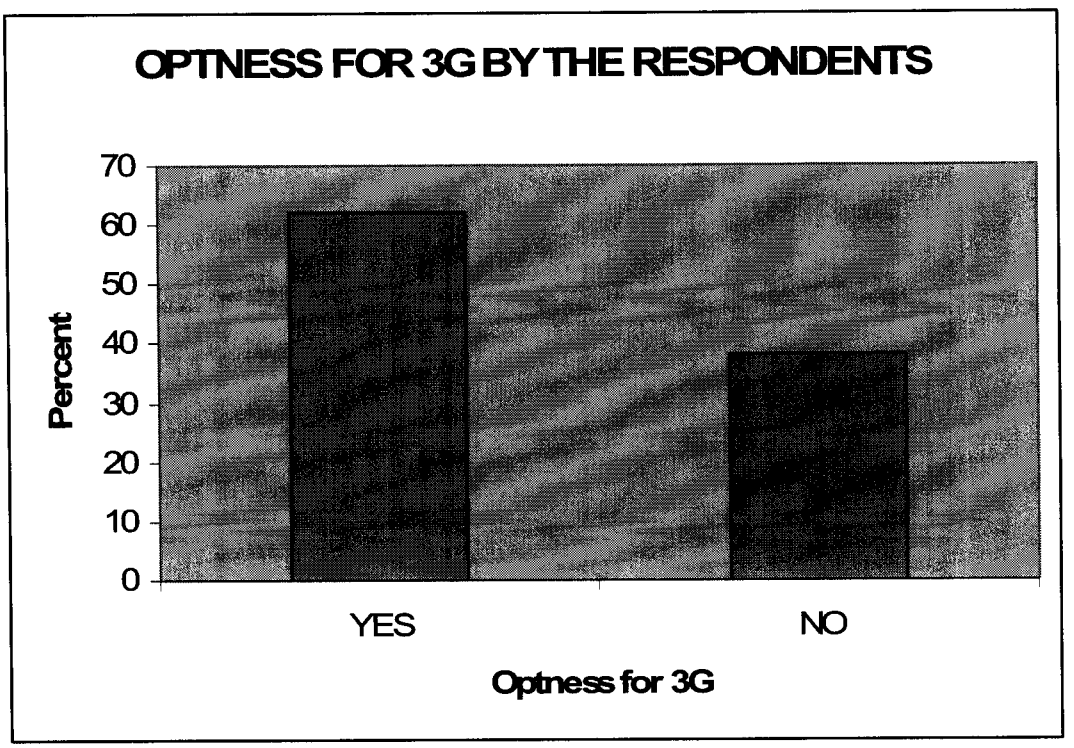
The following tables and the interpretation describe the acceptance level of the respondents for the launch of 3G.

TABLE – 3.4.1

OPTNESS FOR 3G

OPTNESS FOR 3G	NO. OF RESPONDENTS	PERCENT
YES	62	62
NO	38	38
TOTAL	100	100

CHART – 3.4.2



INFERENCE

From the above table it is inferred that among the respondents 62% will opt for 3G and 38% will not opt for it. 38% will not opt for it because they are not satisfied with the service provided by the company.

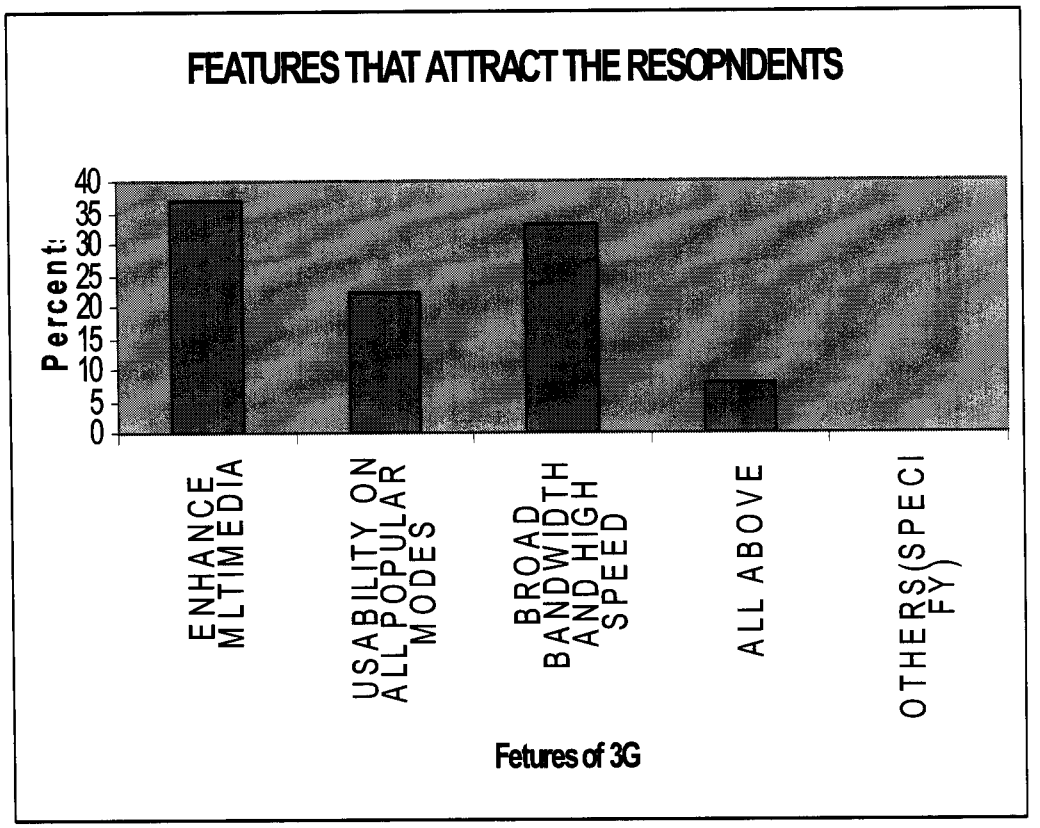
TABLE – 3.4.3

ATTRACTIVE FEATURES

OF 3G TECHNOLOGY

FEATURES THAT ATTRACT	NO. OF RESPONDENTS	PERCENT
ENHANCE MULTIMEDIA	23	37
USABILITY ON ALL POPULAR MODES	14	22
BROAD BANDWIDTH AND HIGH SPEED	20	33
ALL ABOVE	5	8
OTHERS(SPECIFY)	0	0
TOTAL	62	100

CHART – 3.4.3



INFERENCE

From the table it is inferred that the most attractive feature in 3G is usability of all popular modes like cellular phone, e-mail, paging etc. Among the respondents 22% will opt for the above mentioned feature. Then 37% will opt for the feature of enhanced media. 33% will opt for the reason of broad bandwidth and high speed feature. The remaining 8% will opt for the all above mentioned feature. 37% will opt 3G for its enhanced media because they think that it will be more useful in their business.

3.5 ACCESSBILITY TO ONLINE BY THE RESPONDENTS

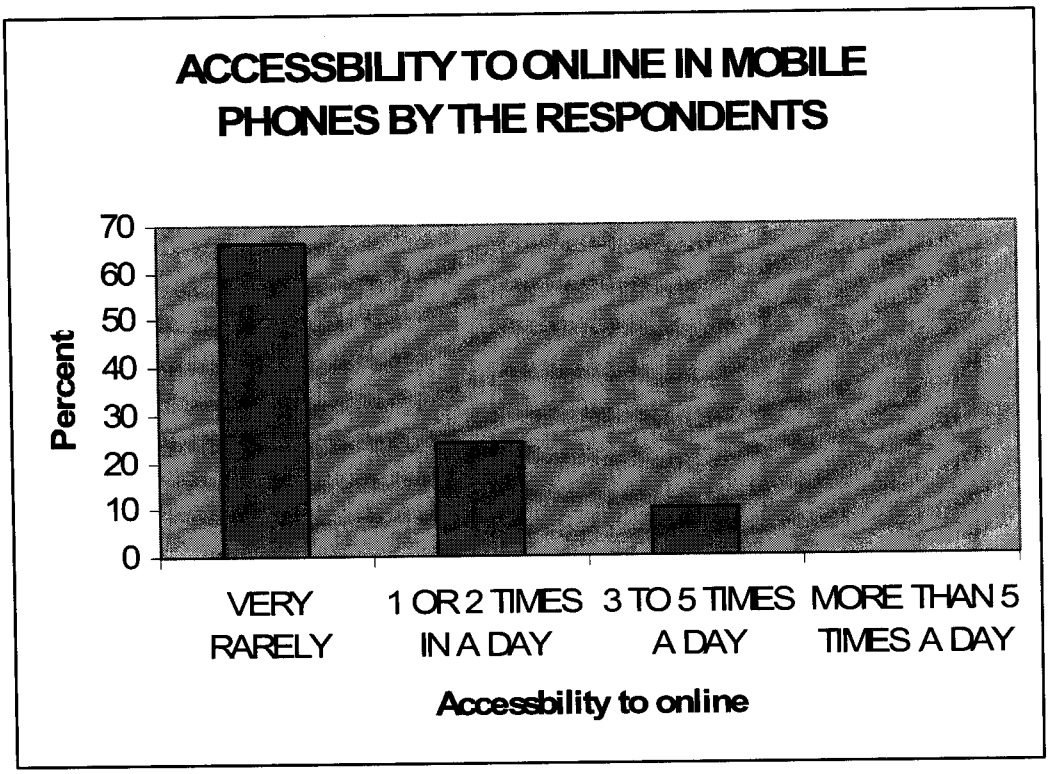
The following tables and the interpretation describe the accessibility of the respondents to the internet level and their expectation from 3G service.

TABLE – 3.5.1

ACCESSBILITY TO ONLINE IN MOBILE PHONES BY THE RESPONDENTS

ACCESSBILITY TO ONLINE IN MOBILE PHONE	NO. OF RESPONDENTS	PERCENT
VERY RARELY	41	66
1 OR 2 TIMES IN A DAY	15	24
3 TO 5 TIMES A DAY	6	10
MORE THAN 5 TIMES A DAY	0	0
TOTAL	62	100

CHART – 3.5.1



INFERENCE

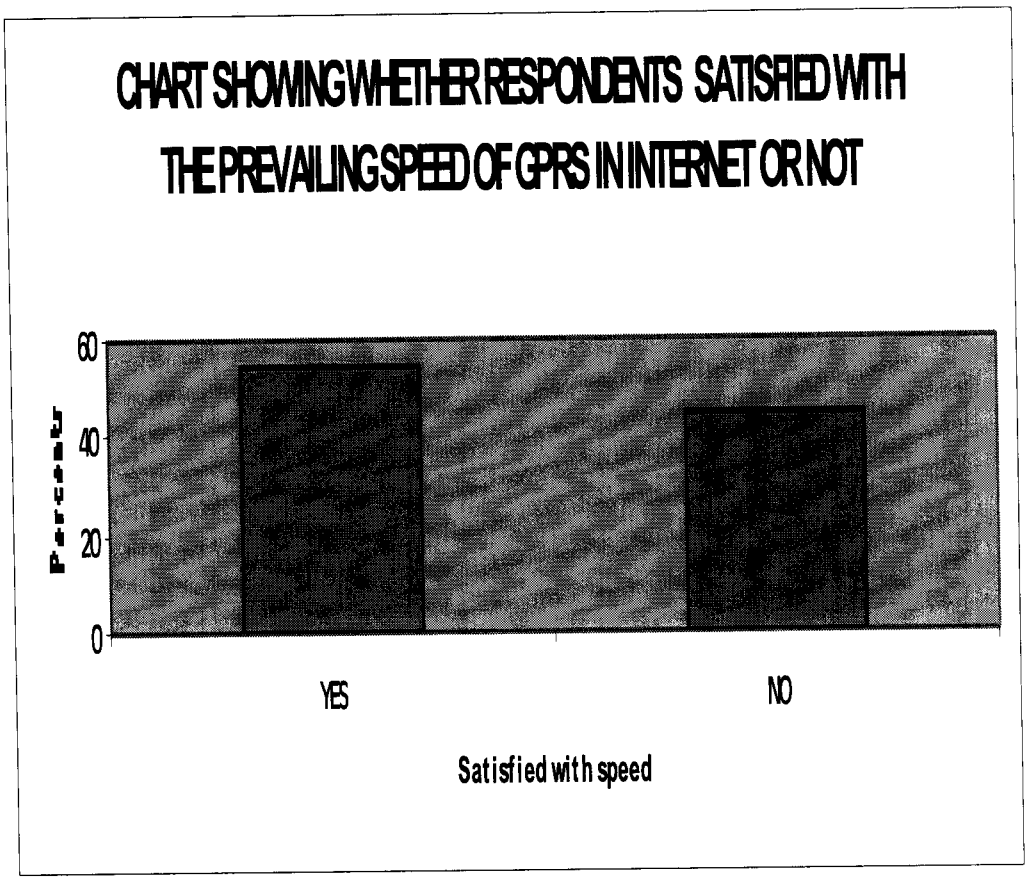
From the table it is inferred that among the respondents 66% rarely access the online in their mobile phone and 24% of the respondents' uses 1 or 2 times in a day and 10% uses 3 to 5 times a day and none of them uses more than 5 times a day. 66% rarely access to online in their mobile because of their less utility towards the mobile.

TABLE – 3.5.2

SATISFISFACTORY LEVEL OF THE RESPONDENTS WITH PREVAILIING SPEED OF GPRS

SATIFACTIED WITH PREVAILING SPEED OF GPRS	NO.OF RESPONDENTS	PERCENT
YES	35	56
NO	27	44
TOTAL	62	100

CHART – 3.5.2



INFERENCE

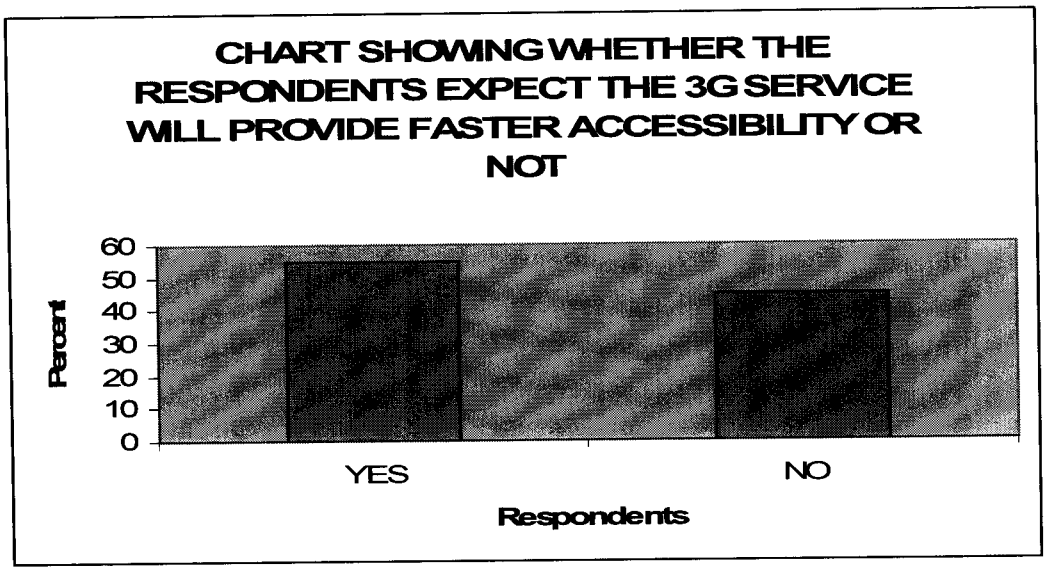
From the above table it is inferred that among the respondents 56% of them were satisfied with prevailing GPRS while browsing internet and 44% are not satisfied. 56% were satisfied with the prevailing GPRS because they think that speed is good.

TABLE – 3.5.6

EXPECTATION FOR 3G WILL PROVIDE FASTER ACCESSBILITY OR NOT

IF NO, DO YOU EXPECT 3G SERVICE WILL PROVIDE FASTER ACCESS	NO. OF RESPONDENTS	PERCENT
YES	24	55
NO	20	45
TOTAL	44	100

CHART – 3.5.6



INFERENCE:

From the above table it is inferred that among the unsatisfied respondents 55% expects that the 3G service provide the faster access and 45% they don't expect. The 55% of the respondents expects that the 3G service will provide faster access because they expect that the 3G technology will provide a better accessibility than the prevailing technology.

3.6 RESPONDENTS EXPECTATION FOR THE 3G MOBILES

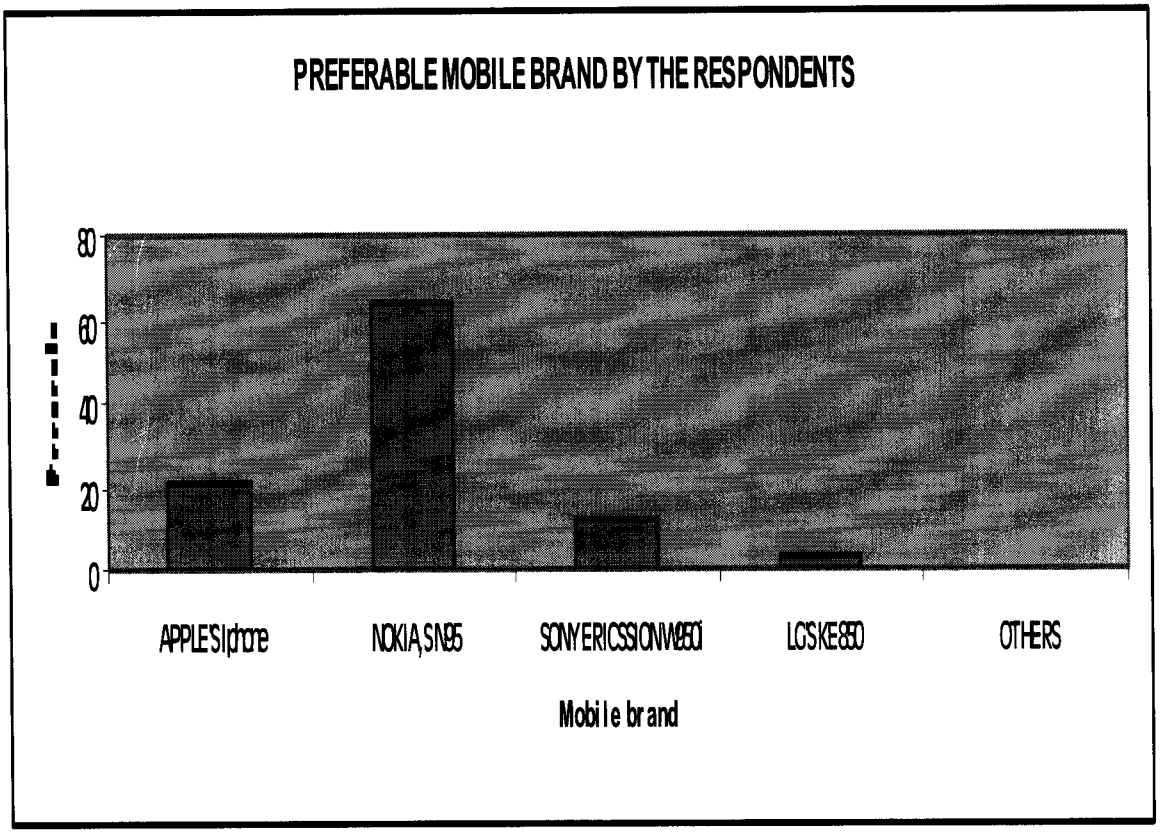
The following table and the interpretation describe the preferable brand and the prize expected by the respondents

TABLE – 3.6.1

PREFERABLE BRAND FOR 3G

BRAND	NO. OF RESPONDENTS	PERCENT
APPLE'S iphone	12	21
NOKIA,S N95	40	64
SONY ERICSSION W950i	8	12
LG'S KE850	2	3
OTHERS	0	0
TOTAL	62	100

CHART – 3.6.1



INFERENCE

From the above table it is inferred that about 64% of the respondents prefer Nokia's N95 for the 3G usage, 21% Apple's iphone, 12% Sony Ericssion's W950i and 3% for LG' KE850. Most of the respondents prefer Nokia N95 because of its user friendly feature.

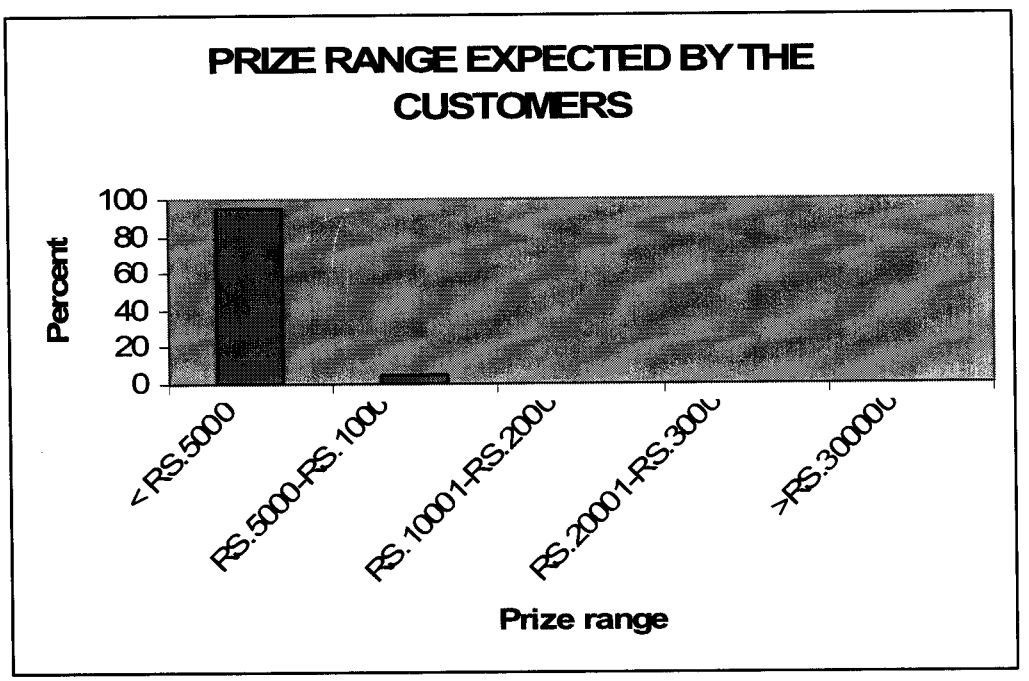
\

TABLE – 3.6.2

PRIZE RANGE EXPECTED BY THE RESPONDENTS

PRIZE RANGE	NO. OF RESPONDENTS	PERCENT
< RS.5000	59	95
RS.5000-RS.10000	3	5
RS.10001-RS.20000	0	0
RS.20001-RS.30000	0	0
>RS.300000	0	0
TOTAL	62	100

CHART – 3.6.2



INFERENCE:

From the table it is inferred that among the respondents 95% expects a prize range below Rs.5000 and 5% expects a prize range of Rs.5000-Rs.10000. Most of the respondents expect the prize range below Rs.5000 because they think that their spending pattern suits for that prize range only.

3.7RECOMMENDATION FOR 3G

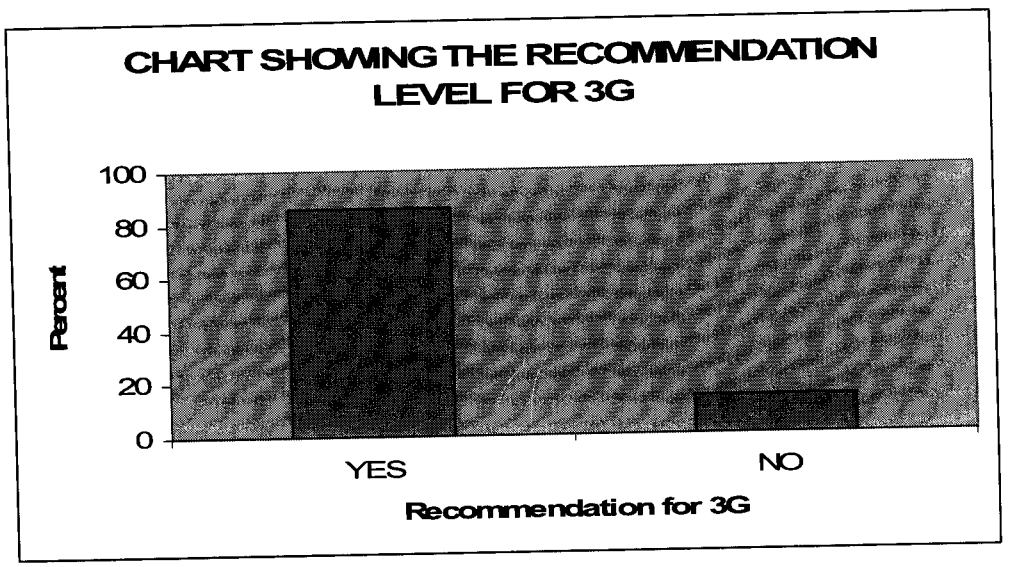
The following table and the interpretation describe the recommendation level for 3G by the respondents.

TABLE – 3.7.1

RECOMMENDATION FOR 3G

WILL YOU RECOMMEND FOR 3G	NO. OF RESPONDENTS	PERCENT
YES	53	86
NO	9	14
TOTAL	62	100

CHART – 3.7.1



INFERENCE

86% of the respondents will recommend for BSNL 3G services an 14% will not recommend for BSNL 3G service. 86% will recommend for 3G because they think that the service will be good.

CHI-SQUARE ANALYSIS

TABLE – 3.8

TABLE SHOWING THE ASSOCIATION BETWEEN INCOME AND NUMBER OF MOBILES POSED BY THE RESPONDENTS'S FAMILY

INCOME	NUMBER OF MOBILES				
	1	2	3	4	ABOVE 4
< RS.5000	5	5	10	-	-
RS.5000-RS.15000	15	25	17	1	-
RS.15001-RS.25000	12	5	0	-	-
> RS.25000	-	5	-	-	-

For the above table the Chi-square test is done as follows:

- H_o = There is no significant relationship between the income and the number of mobiles the customer poses.
- The calculated value = 61.045
- The table value at the 5% significance level = 21.026.
- Since the calculate value is higher than table value reject null hypothesis

TABLE – 3.9

TABLE SHOWING THE ASSOCIATION BETWEEEN MONTHLY EXPENSES AND PAMENT MODE

MONTHLY EXPENSES	PAYMENT MODE	
	POST PAID	PRE PAID
<RS.1000	23	25
RS.1000-RS.2000	13	15
RS.2000-RS.3000	4	10
RS.3000-RS.4000	4	6

For the above table the chi square test is calculated as follows:

- H_o= monthly expense has no influence on the payment mode
- The calculated value = 1.78
- The table value at 5% significance level = 9.488
- Since the calculated value is lesser than table value accept null hypothesis.

TABLE – 3.10

TABLE SHOWING THE RELATIONSHIP BETWEEN THE FAMILY SIZE AND THE NUMBER OF MOBILES POSED BY THEM

FAMILY SIZE	NUMBER OF MOBILES USED				
	1	2	3	4	ABOVE 4
TWO	3	10	-	-	-
THREE	5	4	12	-	-
FOUR	17	20	9	-	-
ABOVE FOUR	7	6	6	1	-

For the above table the chi square test is calculated as follows

- H_o= The family size has no significant relationship between the number of mobiles used in the family.
- The calculated value = 24.68
- The table value at 5% significance level = 21.026.
- Since the calculated value is greater than table value reject null hypothesis

TABLE – 3.11

TABLE SHOWING THE RELATIONSHIP BETWEEN MOBILE BRAND PREFERED FOR 3G AND THE MOBILE BRAND OF THE CUSTOMER

BRAND PREFERED FOR 3G USAGE	MOBILE BRAND OF CUSTOMERS	
	NOKIA	SONY ERICSSION
APPLE'S iPHONE	5	7
NOKIA'S N95	18	22
SONY ERICSSION'S W950i	3	5
LG'S KE850	2	0
OTHERS	-	-

For the above table the chi square is tested as follows:

- H_o= There is no significant relationship between the mobile brand of the respondent and the brand preferred by them for the 3G usage.
- The calculated value = 2.69
- The table value at 5% significance level = 9.488
- Since the calculated value is lesser than table value accept null hypothesis.

TABLE – 3.12

TABLE SHOWING THE RELATIONSHIP BETWEEN THE PRIZE RANGE EXPECTED FOR 3G AND THE MONTHLY INCOME OF THE RESPONDENT

MONTHLY INCOME	PRIZE RANGE				
	< RS.5000	RS.5000-RS.RS.10000	RS.10001-RS.20000	RS.20000-RS.30000	ABOVE RS.30000
< RS.5000	8	3	-	-	-
RS.5001-RS.15000	18	-	-	-	-
RS.15001-RS.25000	28	-	-	-	-
>RS.25000	5	-	-	-	-

For the above table the chi square test is calculated as follows:

- H_0= There exists no significant relationship between the income level and the prize range expected.
- The calculated value = 14.67
- The table value at 5% significance level = 21.026
- Since the calculated value is lesser than the table value accept null hypothesis.

CHAPTER - 4

4.1 FINDINGS

The following are the findings from the study conducted

- Among the respondents 32% have one mobile, 40% have two mobiles, 27% poses three mobile and 1% poses more than three mobile
- Among the respondents 20% income is below Rs.5000 and 58% falls in to the category of income level between Rs.5000 – Rs. 15000, 17% belongs to the category of income level between Rs.15000 – Rs. 25000 and 5% belongs to the category above Rs.25000.
- Among the respondents 45% makes payment in postpaid and 55% makes payment in prepaid.
- Among the respondents 48% spend less than Rs.1000 for the mobile, 28% spends between Rs.1000 – Rs.2000, 14% spends between Rs.2000 – Rs.3000, 10% spends between Rs.3000-Rs.4000.
- Among the respondents 47% were aware of the 3G technology and 53% are unaware of 3G the technology.

- Among the respondents who were aware of the 3G technology, 16% came to know it from the print media, 16% were came to know it from electronic media, 12% were through internet and 3% were trough verbal contact.
- Among the respondents, who were aware 3G technology, 66% access the online in their mobile very rarely, 24% access one or two times a day, 10% access for more than two times a day.
- Among the respondents who will opt for 3G, opt for the various features available in it. Among them 37% opt for the reason of enhanced multimedia, 22% opt for the purpose of usability of all popular modes, and 33% opt for the reason broadband with high speed.
- Among the respondents 56% were satisfied with already prevailing GPRS and 44% not satisfied.
- Among the respondents 62% will op for 3G technology and 38% will not opt for the 3G technology.
- Among the respondents who accept for the 3G technology, 95% expects a prize range below Rs.5000, and 5% expects a prize range between Rs.5000 – Rs.10000.
- Among the respondents who opt for the 3G technology, 86% will recommend it and 14% will not recommend it.

- Through the Chi-square test it is found that there exist the relationship between the respondents' income and the number of mobiles possessed by them.

- Through the Chi-Square test it is found that there exist no relationship between the mobile brand preferred by them and the mobile brand possessed by them.
- Through the test it is analyzed that there exist no relationship between the income level and the prize preferred by them.
- Through the test it is analyzed that there exist a relationship between the monthly expenses made for the mobile and the payment scheme opted by them.

4.2 SUGGESTIONS:

From the findings the following suggestions are made:

- The company has to create awareness among the customers regarding their 3G technology services in mobile phones.
- The company should focus on the respondents who spend more for the mobile.
- The company should focus on the customers who access to the online in their mobile phone.
- The company should launch its 3G technology to the customers at the price specified by them in spite of their income level.
- The company should conduct more campaigns regarding its launch of the 3G technology since many customers are unaware of it.
- The company should provide their 3G services in the mobile brand preferred by them.
- The company should enhance the customer services.

4.3 CONCLUSION

There is a wide scope for the launch of 3G technology in mobile phone. It is mostly preferred for its attractive features. There will me more scope if the BSNL conducts more and more awareness programs and campaigns regarding the 3G technology and its services.

From the study it is revealed that most of the customers are unaware of the 3G technology to be launched by BSNL and they want some more inputs regarding this technology.

The company has to formulate its own strategies to make the launch in more successful manner.

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ANNEXURE

A Study on Customer Perception and Patronage of Forthcoming 3G Technology in Coimbatore and Tirupur

1. Name :

2. Address :

3. Mobile number :

4. Sex **M** ☐ **F** ☐

5. Age group :

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

6. Marital status : **S** ☐ **M** ☐

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

Above 4 ☐

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

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

9. Education: school fi... ☐ gra...te ☐ post gra...ate ☐ & higher ☐

10. Occupation :

Busines... ☐ 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 state the mobile brand you own now:

13. Do you avail post paid ☐ pre paid ☐

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

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

a) Yes ☐ b) No ☐

16. You came to know about 3G Technology through

Print Media [Newspaper / Magazine] ☐ Electronic Media [Radio / Television] ☐

Internet website ☐ Verbal [Friends / Family] ☐

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

18. 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)

19. 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 ☐

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

Yes ☐ No ☐

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

Yes ☐ No ☐

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

a) Apple's iphone, ☐ b) Nokia's N95, ☐ c) Sony Ericsson's W950 ☐

d) LG's KE850 ☐ e) others (Please speci ☐

23. Can you suggest the prize range that you mat buy for 3G Mobile hand set

Below 5000 ☐ 5000 to 10000 ☐ 10001 to 20000 ☐

20000 to 30000 ☐ above 30000 ☐

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

a) Yes ☐ b) No ☐

25. Any suggestion in respect 3G service: