CHAPETR 1

INTRODUCTION

1.1. CUSTOMER SATISFACTION

The concept of customer satisfaction has attracted much attention in recent years. Customer satisfaction has now become the key to compete and survive in today's competitive scenario. Telecom sector in particular has been one of the most competitive one and with tariffs dropping to one paisa per second. Now it is only customer satisfaction which can guarantee incremental revenues for an operator

1.2. OBJECTIVES AND SIGNIFICANCE OF THE STUDY

- To understand customer satisfaction in Telecom sector at both macro level and micro level.
- To research on various variables impacting customer satisfaction
- To compare various parameters of customer satisfaction
- To understand if there is any difference in customer satisfaction from one operator to another or from one location to another.

- To understand if there is any difference in customer satisfaction in certain specific areas within operators, locations or parameters such as billing, network, value added services etc.
- To help the Telecom industry to understand specific improvement opportunities to improve customer satisfaction
- To help management students understand customer satisfaction level from the Telecom industry perspective

1.3. METHODOLOGY

Primary data survey through Questionnaire

- Around 550 Subscribers, selected in a random manner in Assam and North East, were studied based on specific questions designed to answer relevant questions in the research

1.4. HYPOTHESES

Research Hypothesis:

- **If there is any difference in customer satisfaction from service provider to service provider**

Statistical Hypothesis

- Null Hypothesis (H_0): *There is <u>no</u> difference* in customer satisfaction level from service provider to service provider.
- Alternative Hypothesis (H_1): *There <u>is</u> difference* in customer satisfaction level from service provider to service provider.

Research Hypothesis:

- **If there is any difference in customer satisfaction from field-office to field-office**

Statistical Hypothesis

- Null Hypothesis (H_0): *There is no difference* in overall customer satisfaction level from service provider to service provider from field office to field office.
- Alternative Hypothesis (H_1): *There is difference* in overall customer satisfaction level from service provider to service provider from field office to field office.

Research Hypothesis:

- **If there is any difference in customer satisfaction from centre to centre**

Statistical Hypothesis

- Null Hypothesis (H_0): *There is no difference* in overall customer satisfaction level for the service providers from centre to centre.
- Alternative Hypothesis (H_1): *There is difference* in overall customer satisfaction level for the service providers from centre to centre.

Research Hypothesis:

- **If there is any difference in customer satisfaction in various sub segments like network experience, call center experience, billing experience etc.**

Statistical Hypothesis

- Null Hypothesis (H_0): There is no difference in overall customer satisfaction level for the service providers from the above sub segments.

- Alternative Hypothesis (H_1): There is difference in overall customer satisfaction level for the service providers from various sub segments.

1.5. LIMITATIONS/SCOPE OF THE RESEARCH

Following is the scope of this research:

- Research on only mobile users. Does not include fixed line and broadband users
- Research only on postpaid mobile users
- Study area is only Assam and North East and will include study of private telecom operators only

Following is the limitation of this Research:

- Confidentiality of subscriber details/information.

1.6. LIKELY OUTCOME OF THE RESEARCH

- To disprove null hypothesis
- To interpret how different variables impact customer satisfaction
- To check the customer satisfaction from macro and micro level. On operator level and from each question level
- To compare and find which operators performs better than others on each of the variables

- To find out if there is any difference in customer service from one location to another.
- To come out with industry specific recommendations on the improvement areas for each operator
- This research will also help industry to save churn or improve customer retention thereby increasing revenue

1.7. HISTORY OF TELECOMMUNICATIONS INDUSTRY IN INDIA

1.7.1. Liberalization

The process of liberalization in the country began in the right earnest with the announcement of the New Economic Policy in July 1991. Telecom equipment manufacturing was de-licensed in 1991 and value added services were declared open to the private sector in 1992, following which radio paging, cellular mobile and other value added services were opened gradually to the private sector. This has resulted in large number of manufacturing units been set up in the country. As a result most of the equipment used in telecom area is being manufactured within the country. A major breakthrough was the clear enunciation of the government's intention of liberalizing the telecom sector in the National Telecom Policy resolution of 13th May 1994. (Department of Telecom, 2014)

1.7.2. National Telecom Policy 1994

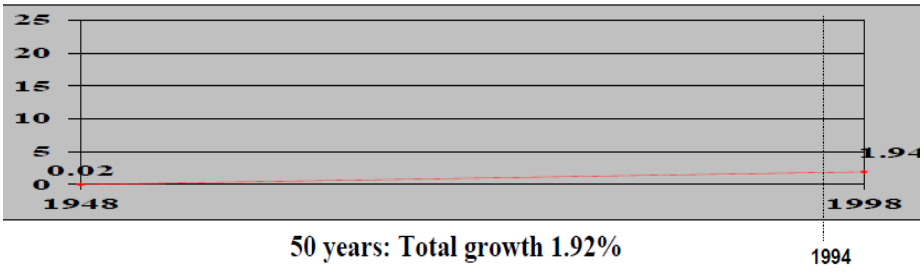
In 1994, the Government announced the National Telecom Policy which defined certain important objectives, including availability of telephone on demand, provision of world class services at reasonable prices, improving India's competitiveness in global market and promoting exports, attractive FDI and stimulating domestic investment, ensuring India's emergence as major manufacturing / export base of telecom equipment and universal availability of basic telecom services to all villages. It

also announced a series of specific targets to be achieved by 1997. (Department of Telecom, 2014)

However, in line with the rest of the world, the policy makers in India adopted an evolutionary approach towards competition and opted for limited competition that is allowing only two players in each of the four metro circles, which were opened for private players. Then Bharti Airtel & Hutch came in to existence in 1995. In 2001 VSNL & MTNL were allowed as third players.

In 2003 RCom entered the telecom market as the fixed services operator which was later on converted to Unified Access License.

Tele-density Growth – Pre-reform



- In the pre-reform period, growth was primarily driven by public sector monopoly, showing very marginal growth
- Reform process started with NTP'94
- TRAI was set up in 1997
- First tariff order issued in 1998 –thus reforms effective from 1998
- NTP'99 pushed reforms further

(Telecom Regulatory Authority of India, 2005)

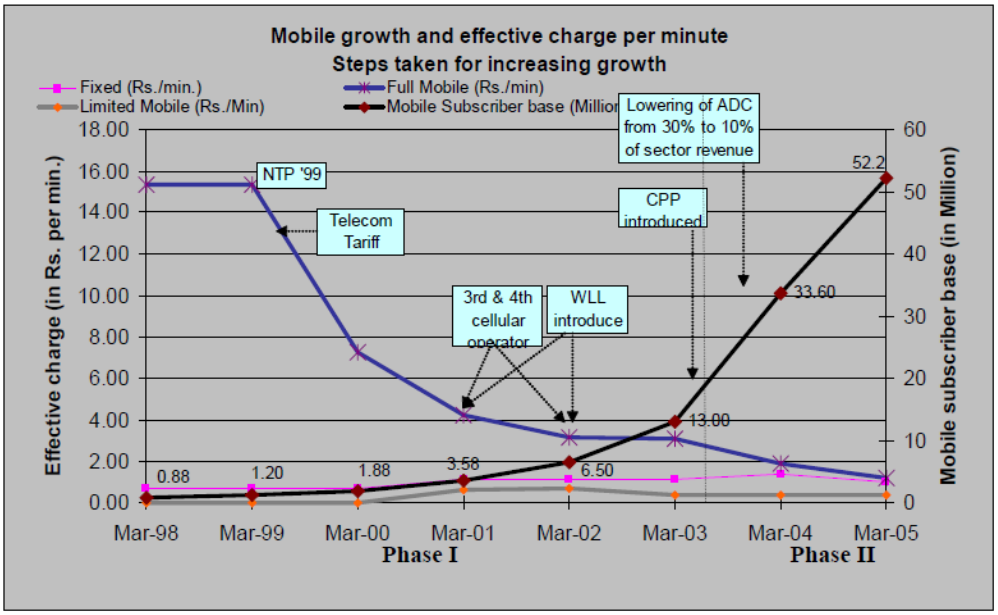
1.7.3. Telecom Regulatory Authority of India (TRAI)

The entry of private service providers brought with it the inevitable need for independent regulator. The Telecom Regulatory Authority of India (TRAI) was, thus, established with effect from 20th February 1997 by an Act of Parliament, called the

Telecom Regulatory Authority of India Act, 1997, to regulate telecom services, including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government.

TRAI's mission is to create and nurture conditions for growth of telecommunications in the country in manner and at a pace, which will enable India to play a leading role in emerging global information society. One of the main objectives of TRAI is to provide a fair and transparent policy environment, which promotes a level playing field and facilitates fair competition. In pursuance of above objective TRAI has issued from time to time a large number of regulations, orders and directives to deal with issues coming before it and provided the required direction to the evolution of Indian telecom market from a Government owned monopoly to a multi operator multi service open competitive market. The directions, orders and regulations issued cover a wide range of subjects including tariff, interconnection and quality of service as well as governance of the Authority.

The TRAI Act was amended by an ordinance, effective from 24 January 2000, establishing a Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT) to take over the adjudicatory and disputes functions from TRAI. TDSAT was set up to adjudicate any dispute between a licensor and a licensee, between two or more service providers, between a service provider and a group of consumers, and to hear and dispose of appeals against any direction, decision or order of TRAI. (Department of Telecom, 2014)



TRAI facilitated huge reduction in forborne tariffs in 2003-05.Measures indicated in boxes –and by increasing competition also, by allowing handsets sales in installments.

Mobile growth stepped up significantly –once mobile and fixed line tariffs became equal. Mobile then became the telephone of the working class. (Telecom Regulatory Authority of India, 2005)

1.7.4. New Telecom Policy 1999

The most important milestone and instrument of telecom reforms in India is the New Telecom Policy 1999 (NTP 99). The New Telecom Policy, 1999 (NTP-99) was approved on 26th March 1999, to become effective from 1st April 1999. NTP-99 laid down a clear roadmap for future reforms, contemplating the opening up of all the segments of the telecom sector for private sector participation. It clearly recognized the need for strengthening the regulatory regime as well as restructuring the departmental telecom services to that of a public sector corporation so as to separate the licensing and policy functions of the Government from that of being an operator. It also recognized the need for resolving the prevailing problems faced by the operators so as to restore their confidence and improve the investment climate.

Key features of the NTP 99 include:

- Strengthening of Regulator.
- National long distance services opened to private operators.
- International Long Distance Services opened to private sectors.
- Private telecom operators licensed on a revenue sharing basis, plus a one-time entry fee. Resolution of problems of existing operators envisaged.
- Direct interconnectivity and sharing of network with other telecom operators within the service area was permitted.
- Department of Telecommunication Services (DTS) corporatized in 2001.
- Spectrum Management made transparent and more efficient.

All the commitments made under NTP 99 have been fulfilled; each one of them, in letter and spirit, some even ahead of schedule, and the reform process is now complete with all the sectors in telecommunications opened for private competition. (Department of Telecom, 2014)

1.7.5. National Long Distance

National Long Distance opened for private participation. The Government announced on 13.08.2000 the guidelines for entry of private sector in National Long Distance Services without any restriction on the number of operators. The DOT guidelines of license for the National Long Distance operations were also issued.

Highlights - NLD Guidelines

- Unlimited entry for carrying both inter-circle and intra-circle calls.
- Total foreign equity (including equity of NRIs and international funding agencies) must not exceed 74%. Promoters must have a combined net worth of Rs.25 million.

- Private operators will have to enter into an arrangement with fixed-service providers within a circle for traffic between long-distance and short-distance charging centers.
- Seven years time frame set for rollout of network, spread over four phases. Any shortfall in network coverage would result in encashment and forfeiture of bank guarantee of that phase.
- Private operators to pay one-time entry fee of Rs.25 million plus a Financial Bank Guarantee (FBG) of Rs.200 million. The revenue sharing agreement would be to the extent of 6%.
- Private operators allowed to set up landing facilities that access submarine cables and use excess bandwidth available.
- License period would be for 20 years and extendable by 10 years. (Department of Telecom, 2014)

1.7.6. International Long Distance

In the field of international telephony, India had agreed under the GATS to review its opening up in 2004. However, open competition in this sector was allowed with effect from April 2002 itself. There is now no limit on the number of service providers in this sector. The license for ILD service is issued initially for a period of 20 years, with automatic extension of the license by a period of 5 years. The applicant company pays one-time non-refundable entry fee of Rs.25 million plus a bank guarantee of Rs.250 million, which will be released on fulfillment of the roll out obligations. The annual license fee including USO contribution is @ 6% of the Adjusted Gross Revenue and the fee/royalty for the use of spectrum and possession of wireless telegraphy equipment are payable separately. At present 10 ILD service providers (9 Private and 1 Public Sector Undertaking) are there. As per current roll out obligations under ILD license, the licensee undertakes to fulfill the minimum network roll out obligations for installing at least one Gateway Switch having appropriate interconnections with at least one National Long Distance service licensee. There is no bar in setting up of Point of

Presence (PoP) or Gateway switches in remaining location of Level I Tax's. Preferably, these PoPs should conform to Open Network Architecture (ONA) i.e. should be based on internationally accepted standards to ensure seamless working with other Carrier's Network. (Department of Telecom, 2014)

1.7.7. Universal Service Obligation Fund

Another major step was to set up the Universal Service Obligation Fund with effect from April 1, 2002. An administrator was appointed for this purpose. Subsequently, the Indian Telegraph (Amendment) Act, 2003 giving statutory status to the Universal Service Obligation Fund (USOF) was passed by both Houses of Parliament in December 2003. The Fund is to be utilized exclusively for meeting the Universal Service Obligation and the balance to the credit of the Fund will not lapse at the end of the financial year. Credits to the Fund shall be through Parliamentary approvals. The Rules for administration of the Fund known as Indian Telegraph (Amendment) Rules, 2004 were notified on 26.03.2004.

The resources for implementation of USO are raised through a Universal Service Levy (USL) which has presently been fixed at 5% of the Adjusted Gross Revenue (AGR) of all Telecom Service Providers except the pure value added service providers like Internet, Voice Mail, E-Mail service providers etc. In addition, the Central Govt. may also give grants and loans. An Ordinance was promulgated on 30.10.2006 as the Indian Telegraph (Amendment) Ordinance 2006 to amend the Indian Telegraph Act, 1885 in order to enable support for mobile services and broadband connectivity in rural and remote areas of the country. Subsequently, an Act has been passed on 29.12.2006 as the Indian Telegraph (Amendment) Act 2006 to amend the Indian Telegraph Act, 1885. (Department of Telecom, 2014)

1.7.8. Unified Access Services

Unified access license regime was introduced in November'2003. Unified Access Services operators are free to provide, within their area of operation, services, which

cover collection, carriage, transmission and delivery of voice and/or non-voice messages over Licensee's network by deploying circuit, and/or packet switched equipment. Further, the Licensee can also provide Voice Mail, Audiotex services, Video Conferencing, Videotex, E-Mail, Closed User Group (CUG) as Value Added Services over its network to the subscribers falling within its service area on non-discriminatory basis. The country is divided into 23 Service Areas consisting of 19 Telecom Circle and 4 Metro Service Areas for providing Unified Access Services (UAS). The license for Unified Access Services is issued on non-exclusive basis, for a period of 20 years, extendable by 10 years at one time within the territorial jurisdiction of a licensed Service Area. The license Fee is 10%, 8% & 6% of Adjusted Gross Revenue (AGR) for Metro and Category `A', Category `B' and Category `C' Service Areas, respectively. Revenue and the fee/royalty for the use of spectrum and possession of wireless telegraphy equipment are payable separately. The frequencies are assigned by WPC wing of the Department of Telecommunications from the frequency bands earmarked in the applicable National Frequency Allocation Plan and in coordination with various users subject to availability of scarce spectrum. At present 3 to 6 service providers (2-5 Private and 1 Public Sector Undertaking) are there in most of the service areas. (Department of Telecom, 2014)

1.7.9. Internet Service Providers (ISPs)

Internet service was opened for private participation in 1998 with a view to encourage growth of Internet and increase its penetration. The sector has seen tremendous technological advancement for a period of time and has necessitated taking steps to facilitate technological ingenuity and provision of various services. The Government in the public interest in general, and consumer interest in particular, and for proper conduct of telegraph and telecom services has decided to issue the new guidelines for grant of license of Internet services on non-exclusive basis. Any Indian company with a maximum foreign equity of 74% is eligible for grant of license. (Department of Telecom, 2014)

1.7.10. Interconnection Usage Charges

In January 2003, TRAI notified the Interconnection Usage Charges (IUC) Regulation, 2003 and issued the same in October 2003, which covered arrangements amongst service providers for payment of IUC, covering Basic Services, including Wireless-in-Local Loop (Mobile), Cellular Mobile Services, National Long Distance (NLD) and International Long Distance (ILD) services. This regulation provided for charges payable by one operator to another for origination, transit and termination of calls in a multi-operator environment. It came into force with effect from 1 February 2004. The main features of the new IUC regime were lower Access Deficit Charges (ADC), uniform termination charges of Rs 0.30 per minute irrespective of the terminating network, reduction of ADC on NLD and ILD calls, all of which resulted in lower tariff environment on voice telephony. (Department of Telecom, 2014)

1.7.11. Tariff Changes

The Indian Telecom Sector has witnessed major changes in the tariff structure. The Telecommunication Tariff Order (TTO) 1999, issued by regulator (TRAI), had begun the process of tariff balancing with a view to bring them closer to the costs. This supplemented by Calling Party Pay (CPP), reduction in ADC and the increased competition, has resulted in a dramatic fall in the tariffs.

a) The peak National Long Distance tariff for above 1000 Kms. in 2000 came down from US$ 0.67 per minute to US$ 0.02 per minute in 2006.
b) The International Long Distance tariff from US$ 1.36 per minute in 2000 to US$ 0.16 per minute in 2004 for USA, Canada & UK.
c) The mobile tariff for local calls has reduced from US$0.36 per minute in 1999 to US$ 0.009 - US$ 0.04 per minute in 2006.
d) The Average Revenue per User of mobile was between US$ 5.06 - US$ 7.82 per month. (Department of Telecom, 2014)

1.8. KEY HIGHLIGHTS OF 2013

With over 900 million telephone connections, India remained the world's second-largest telecommunications market in 2013, recovering from the bumpy ride the year before, but made little progress to jump to the next generation of services.

The year under review had already equipped the government with a roadmap, following the release of the National Telecom Policy of 2012. But legal issues, like the ongoing battle over allotment of airwaves, or spectrum, in 2008, kept decision-making incheck.

Nevertheless, the government did announce some significant initiatives - like the much-awaited policy on mergers and acquisitions and permitted 100 per cent foreign investment in the sector - which will drive Indian telecom in the years to come, as per analysts.

The National Telecom Policy 2012 was announced.

HIGHLIGHTS 2013

1. National Telecom Policy of 2012 introduced
2. Foreign equity of 100 per cent allowed in telecom
3. Vodafone evinces interest in buying entire stake of Indian partner
4. Mergers and acquisition policy approved
5. Dominant player can hold up to 50 per cent telecom market share
6. Telecom tower business given infrastructure status
7. Clearance for unified telecom licenses in respect of technology
8. Total telecom connections at 904.56 million end-October

Analysts did not see much of an impact by allowing 100 per cent foreign equity. "Very few players are keen except Vodafone, which wants to raise its stake beyond 64.38 per cent. Investment is a priority for the sector but not foreign equity, per se," said Uppal.

(Business Today, 2013)

Experts said telecom players were looking for market capitalization and consolidation.

"The operators have started to focus on subscriber quality and have done away with the lucrative dealer commissions and promotional minutes. After 2008, for the first time, India has witnessed a surge in voice tariff," said Jaideep Ghosh, partner with KPMG.

(Busines Today, 2013)

He also mentioned that to increase data user penetration, operators have dropped their 3G tariff (by as much as 75-80 per cent). As a result it is comparable with that for 2G services. (Business Today, 2013)

1.9. NATIONAL TELECOM POLICY-2012 (NTP-2012)

The Government approved National Telecom Policy-2012 (NTP-2012) on 31st May 2012 which addresses the Vision, Strategic direction and the various medium term and long term issues related to telecom sector. The primary objective of NTP-2012 is maximizing public good by making available affordable, reliable and secure telecommunication and broadband services across the entire country. The main thrust of the Policy is on the multiplier effect and transformational impact of such services on the overall economy. It recognizes the role of such services in furthering the national development agenda while enhancing equity and inclusiveness. Availability of affordable and effective communications for the citizens is at the core of the vision and goal of the NTP-2012. The Policy also recognizes the predominant role of the private

sector in this field and the consequent policy imperative of ensuring continued viability of service providers in a competitive environment. Pursuant to NTP-2012, these principles would guide decisions needed to strike a balance between the interests of users/consumers, service providers and government revenue.

The objectives of the NTP-2012, inter-alia, include the following:

- Provide secure, affordable and high quality telecommunication services to all citizens.

- Strive to create One Nation- One License across services and service areas.

- Achieve One Nation - Full Mobile Number Portability and work towards One Nation - Free Roaming.

- Increase rural tele-density from the current level of around 39 to 70 by the year 2017 and 100 by the year 2020.

- To recognize telecom, including broadband connectivity as a basic necessity like education and health and work towards 'Right to Broadband'.

- Provide affordable and reliable broadband-on-demand by the year 2015 and to achieve 175 million broadband connections by the year 2017 and 600 million by the year 2020 at minimum 2 Mbps download speed and making available higher speeds of at least 100 Mbps on demand.

- Provide high speed and high quality broadband access to all village panchayats through a combination of technologies by the year 2014 and progressively to all villages and habitations by 2020.

- Recognize telecom as Infrastructure Sector to realize true potential of ICT for development

- Address the Right of Way (RoW) issues in setting up of telecom infrastructure.

- Mandate an ecosystem to ensure setting up of a common platform for interconnection of various networks for providing non-exclusive and non-discriminatory access.

- Enhanced and continued adoption of green policy in telecom and incentivize use of renewable resources for sustainability.

- Achieve substantial transition to new Internet Protocol (IPv 6) in the country in a phased and time bound manner by 2020 and encourage an ecosystem for provision of a significantly large bouquet of services on IP platform.

(Annual Report of Department of Telecom, 2012-13)

1.10. HIGHLIGHTS OF TELECOM SUBSCRIPTION DATA AS ON 30TH JUNE, 2014

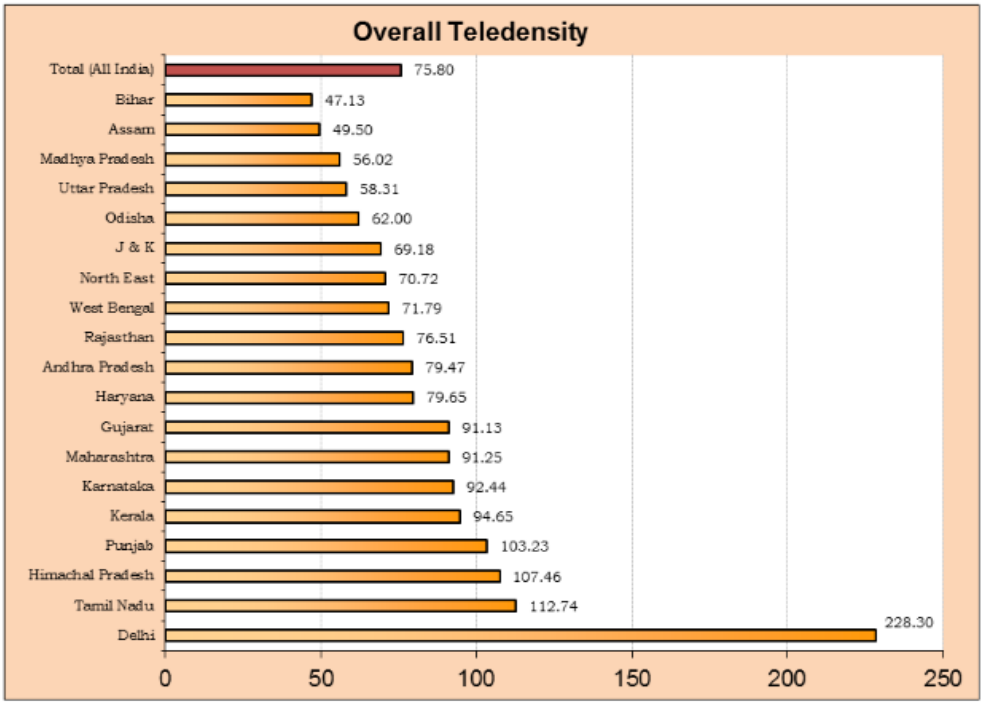
Highlights on Telecom Subscription Data as on 30th June, 2014

Particulars	Wireless	Wireline	Total Wireless + Wireline
Total Subscribers (Million)	914.92	28.03	942.95
Total Monthly Net Addition (Million)	4.77	-0.16	4.61
Monthly Growth	0.52%	-0.56%	0.49%
Urban Subscribers (Million)	**537.56**	**22.21**	**559.77**
Urban Subscribers Monthly Net Addition (Million)	3.63	-0.10	3.53
Monthly Growth	0.68%	-0.45%	0.63%
Rural Subscribers (Million)	**377.36**	**5.81**	**383.18**
Rural Subscribers Monthly Net Addition (Million)	1.14	-0.06	1.08
Monthly Growth	0.30%	-1.00%	0.28%
Overall Tele-density*	**73.55**	**2.25**	**75.80**
Urban Tele-density*	140.44	5.80	146.24
Rural Tele-density*	43.82	0.68	44.50
Share of Urban Subscribers	58.76%	79.25%	59.36%
Share of Rural Subscribers	41.24%	20.75%	40.64%
No. of Broadband Subscribers (Million)	**53.86**	**14.97**	**68.83**

- Mobile Number Portability requests increased from 121.47 million subscribers at the end of May, 2014 to 123.87 million at the end of June, 2014. In the month of June, 2014 alone 2.39 million requests have been made for MNP.

(Telecom Regulatory Authority of India, 2014)

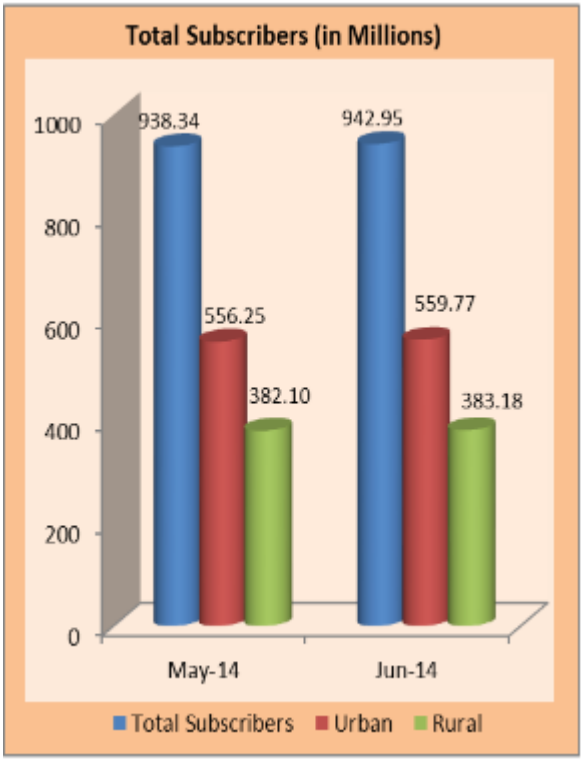
Overall Tele-density (Circle/State Wise) – As on 30th June, 2014



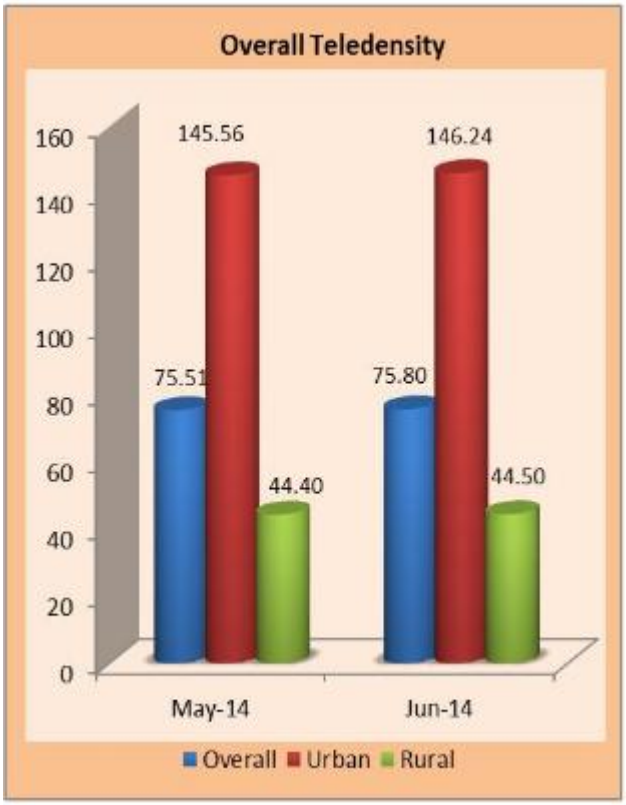
The wireless teledensity stands at an overall number of 75.80% on a PAN India basis.

In Assam the Teledensity stands at 49.50% and In NE the Teledensity stands at 70.72%

(Telecom Regulatory Authority of India, 2014)



Total wireless subscriber base increased from 938.34 million in May, 2014 to 942.95 million at the end of June, 2014, registering a monthly growth of 0.49%. The share of urban wireless subscribers has increased from 59.28% to 59.36% whereas share of rural wireless subscribers has marginally declined from 40.72% to 40.64%. The overall wireless Tele-density in India has reached 75.80 from 75.71 of previous month.
(Telecom Regulatory Authority of India, 2014)



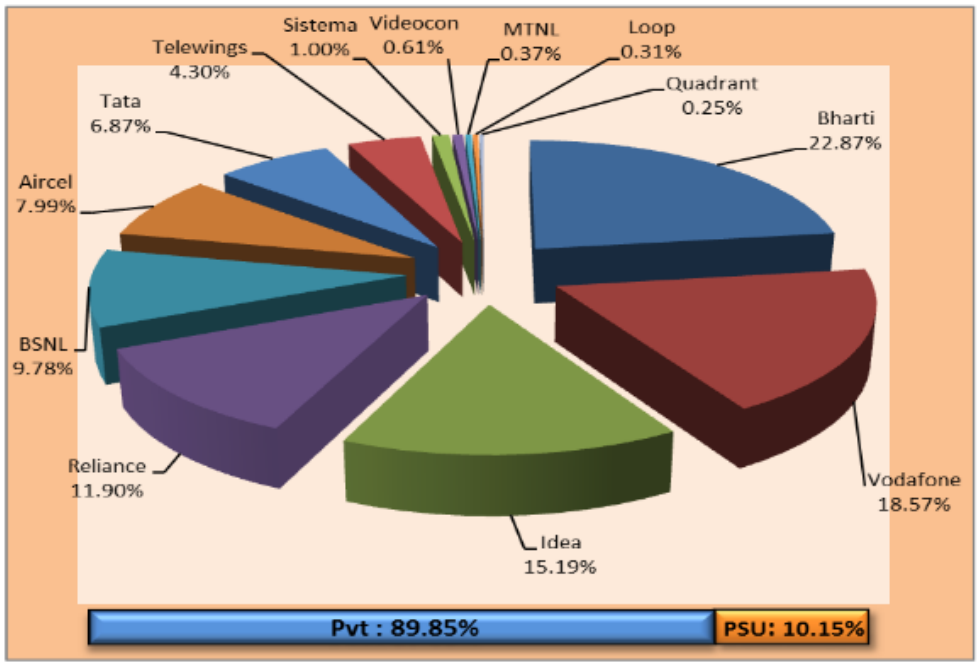
The urban wireless Tele-density has increased from 145.56 to 146.24 and rural Tele-density has increased from 44.40 to 44.50.

(Telecom Regulatory Authority of India, 2014)

Private operators hold 89.85% of the wireless subscriber market share where as BSNL and MTNL, the two PSU operators hold only 10.15% market share. The graphical representations of market shares and shares in net additions of all the service providers during the month of June, 2014 are given below:

(Telecom Regulatory Authority of India, 2014)

A. Service Provider wise Market Share as on 30th June, 2014.



Mobile Number Portability

- As per the data reported by the service providers, by the end of June, 2014 about 123.87 million subscribers have submitted their requests to different service providers for porting their mobile number.

- In MNP Zone-I (Northern & Western India) maximum number of requests have been received in Rajasthan (about 12.45 million) followed by Gujarat (about 10.51 million) whereas in MNP Zone-II (Southern & Eastern) maximum number of requests have

been received in Karnataka (about 14.03 million) followed by Andhra Pradesh Service area (about 11.52 million).

- In the month of June, 2014, total number of subscribers who have submitted their request for MNP is 2.39 million. The status of MNP requests in various service areas is given below:

Service Area Wise MNP Status at the end of June, 2014			
Zone -1		Zone - 2	
Service Area	Number of Porting Requests	Service Area	Number of Porting Requests
Delhi	4738057	Andhra Pradesh	11519955
Gujarat	10509774	Assam	427471
Himachal Pradesh	425236	Bihar	2874998
Haryana	4652505	Karnataka	14029070
Jammu & Kashmir	24507	Kerala	4716977
Maharashtra	9664130	Kolkata	2792045
Mumbai	5550648	Madhya Pradesh	7029462
Punjab	4279184	North East	219753
Rajasthan	12452458	Orissa	2624633
Uttar Pradesh - East	6679919	Tamil Nadu	7418856
Uttar Pradesh - West	6520433	West Bengal	4716708
Total	**65,496,851**	**Total**	**58,369,928**
Total (Zone-1 + Zone-2)			**123,866,779**
Net Addition (in June, 2014)			**2,394,147**

(Telecom Regulatory Authority of India, 2014)