

Chapter - 3

PROFILE OF MOBILE NETWORK SERVICES

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INTRODUCTION

History of Mobile Telephony

The telecommunication has helped to shrink the world to a great extent and localized the communication process vigoursly. The history of communication technology is indispensable at this juncture to study various developments as well as the research augmentation in telecommunication. The chronological order of developments and the successful materialization of the process are presented in a lucid and concise manner.

The chronological development of mobile phone industry is presented to explore the developments and augmentation in telecommunication technology.

1947 The idea of mobile telecommunications to police department was initiated by Bell Laboratories.

The basic concept of mobile telecommunication used in mobile communications using cells of limited service range, hoped to increase the communication traffic to a considerable extent, but the technology for that process was not existent during those days.

A wide range of spectrum for telecommunication for the use of mobile phone purpose was proposed by AT&T to FCC.

The frequency available in those days provided by FCC limit to conversations of very few persons in the same the service area.

1968 A proposal by AT&T and Bell for small, low-powered, transmission through a towers, covering each 'cells' within few miles of radius from the tower covering a larger area. Each tower will use a frequency allotted to it covering

the cells passing through it even from different areas covered by another tower.

The development of new technology to build and better mobile service backed by the increase in frequency for better connectivity by allocating more space for more mobile phones was considered by FCC.

1973 Dr.Martin Cooper, a Former General Manager for systems division of Motorola, also credited with the inventor of modern portable handset made a first call from an hand held modern mobile phone.

1977 A prototype mobile system was developed by AT&T and Bell Labs and tested in Chicago with a trial of 2000 customers.

1979 The first commercial mobile telephone system began operation in Tokyo.

1980 Analog mobile telephone systems were experiencing rapid growth in Europe, particularly in Scandinavia, United Kingdom, France and Germany. Each country developed its own system, which was incompatible with everyone else's in equipment and operation

1981 A second U.S Mobile radio-telephone system was tested in Washington / Baltimore by Motorola and American Radio telephone.

1982 Commercial mobile services was authorized in USA by FCC.

1982 The Conference of European Posts and Telegraphs (CEPT) formed a study group called the Groupe Spécial Mobile (GSM) to develop a public land mobile system covering pan-European regions with certain criteria to fulfill. They are :

- Good subjective speech quality
- Low terminal and service cost
- Support for international roaming

- Ability to support handheld terminals
- Support for range of new services and facilities
- Spectral efficiency
- ISDN compatibility

1983 Ameritech introduced the first American commercial analog mobile service or AMPS (Advanced Mobile Phone Service) in Chicago.

1987 Mobile telephone airways was crowded with more than one million subscribers

1989 European Telecommunication Standards Institute (ETSI), taken over the responsibility of GSM technology.

1990 Phase I of the GSM specifications were published.

1991 Finland started the GSM based mobile services.

HISTORY OF MOBILE SERVICES IN INDIA

The Indian scenario of mobile services and its analogy with mobile development services are presented in a chronological order.

1992 In line with the Government liberalization Policy telecommunication sector in India is liberalized for private sector participation to fill the gap between Government spending and to provide the additional resources to meet nation's telecom target.

1993 Foreign direct investment into telecommunication industry grows to Rs 20.6 millions.

1994 Under fixed license fee scheme for a period of 19 years, license was granted to provide mobile services in metropolitan cities like Delhi, Kolkata, Chennai and Mumbai by the Government of India.

1995 19 more telecom circles get mobile licenses. Kolkata was the first metropolitan city to get connected in a mobile network.

1997 Telecom Regulatory Authority of India is set up

The Indian telecom industry has undergone a paradigm shift, as it has evolved into an basic necessity like electricity, roads, water etc., and has also formed as a part of economic growth indicator. The year 2009-10 has been considered as the year of broadband with the proposed roll out of 3G & BWA, the growth of mobile broadband and their related services is expected to be a growth drivers for mobile broadband penetration in all parts of India.

The GSM technology of the mobile phones is continuing its growth track to reach 422 million users at the end of March 2010 along with an addition of 10 to 12 million users every month. The GSM industry in India offers variety of services in various spheres with Low tariffs, High minutes of usage(411minutes) and Average Revenue Per User stands at Rs. 144. With the host of new service providers entering into GSM industry, mobile operators turn their concentration towards rural areas with more than 130 million users already using mobile phones. The service providers are also investing heavily on the required infrastructure spread across India. This has helped the service providers to rope in 3 to 4 million new users every month from rural areas in India.

The various service Providers in Chennai City.

AIRCEL

Aircel is a joint venture company of Maxis Communications, Berhad, Malaysia and Apollo Hospitals Group of India, which is the 5th largest GSM Mobile operator in the country. Aircel with a subscriber base of nearly 40 Million and is the fastest growing mobile service operator. With the presence in 19 circles, and got the license for the remaining part of the country, Aircel is the market leader in Tamil Nadu, Assam, North Eastern part of India and Chennai. AS a national brand Aircel, with the strong connectivity infrastructure is offering innovative services to the

customers in the highly competitive market, is moving on to become a leading pan-India service provider at the earliest. With lot of innovative customized services for different segments of the market, with the help of latest technologies, Aircel offers a simplified tariff plans, value - added services to the users helped Aircel to bag lot of prestigious awards in the mobile phone industry. Aircel bagged CMAI National Infocom Award 2009, Brand Leader Award by World Brand Congress 2009, Best Employer Brand & Innovative HR & Best Strategy in line with Business by World HRD Congress 2009. Aircel also bagged awards in professional categories, for the best professional in Marketing, HR & Corporate Communications.

BHARTI AIRTEL

Bharti Airtel Ltd., a leading integrated telecom services provider serving more than 180 Million customers spread across 89 cities in India, as well as countries in Asia & Africa. Bharti has been in the forefront of technology to revolutionize the Indian mobile industry with innovative services to their customers. The company is offering different products and services to different types of customers from individual users in the form of basic telecom solutions, wireless communication, broadband connections, IPTV and DTH TV services under the brand name of Digital TV. Bharti also offers end-to-end telecommunication solutions to corporate customers for national & international long distance services. Bharti, which has a largest number of subscribers in wireless services, has advantages of strong technological infrastructure of his own in terms of telecom operations. Bharti has lot of achievements to prove it mettle by getting 'Strongest Brand' in Economic Times, 7th most valuable Brand in India with the value more than \$2.5 billion. It also featured in Forbes Asia's 'Fabulous 50' companies of Asia Pacific, 'Most Preferred Mobile Service Provider Award' at CNBC Consumer Awards 2009, 'NDTV Profit Business Leadership Award 2009' in telecom sector. 'Top Telecom Services Provider of the Year 2009', 'Top Mobile Services Provider 2009' & 'Service Provider of the Year' and 'Wireless Service Provider of the Year' by Frost & Sullivan Asia Pacific ICT Awards.

VODAFONE

Vodafone Essar (formerly HUTCH) is the Indian subsidiary of Vodafone Group. Started by Hutchison Telecom in the year 1994 from Mumbai, Now with the presence across the nation covering 85% of the population with 106.34 Million customers as of May'2010. Out of which Wireless customers alone crosses 68.77 Million, 38 Million subscribers are from rural areas form the backbone of Vodafone market. With the license to provide 3G spectrum in 9 circles, Vodafone has emerged as a leading international communication service provider with 341 million subscribers across 31 countries in five continents, partnership with 40 Network service providers. The Essar Group with the presence in manufacturing and service sectors across the world, is the principal partner in India. Vodafone Essar started operations from 2007 comprises of 8 legal entities in terms of communication services also owns 42% share in Indus Towers Limited, a key infrastructure service organisation in India. Major achievements of Vodafone include Most Admired Marketing Company in India [Economic Times +IMRB], OpCo of the Year, Grand Prix and 5 singles at the Vodafone Creative Awards, Pug was awarded Campaign of the Decade [ET Now], Most awarded brand at the ABBY's – 13 medals, Gold at Spikes Asia for Integrated Campaign, Client of the Year at Effie's, Amongst Top 3 Marketers in India [Pitch], and many more.

BHARAT SANCHAR NIGAM LIMITED

Bharat Sanchar Nigam Limited, (BSNL) a Government of India enterprise is offering end-to-end solutions in telecommunications requirements of masses and corporates through innovative technology and pricing patterns. BSNL provides services in state-of-the-art GSM technology to attain Global excellence and leadership with strategic pricing patterns, which already helped BSNL to acquire million customers across India. BSNL got the distinction of providing mobile services to all major cities, state highways through its own network. BSNL has a distinction of providing roaming facility to more than 300 networks across the globe, with one number roaming across India. BSNL got the special permission to provide mobile service to Jammu and Kashmir, Arunachal Pradesh, Nagaland, Mizoram etc. With the

host of services to match the expectations of the users, BSNL offers latest technology in communication at an affordable cost to suit the cost conscious Indian customers.

TATA TELESERVICES

Tata Teleservices Limited, Incorporated in 1996, spearheads the most prestigious and largest private sector company with its presence in all types of business into the telecom service industry. Tata Teleservices Limited, a pioneer in CDMA 1x technology, provides telecommunication solutions in both CDMA as well as GSM technology with the partnership of NTT DOCOMO of Japan under the brand name of TATA DOCOMO. NTT DOCOMO is one of the world's leading mobile operators – in Japanese market, with more than 50 % market share. TATA DOCOMO has been licensed to provide services pan-India in GSM technology, also been allotted to offer spectrum in 18 telecom circles. TATA DOCOMO has GSM services in 17 telecom circles in a short span of ten months. In December 2008, Tata Teleservices announced a unique reverse equity swap strategic agreement between its telecom tower subsidiary, Wireless TT Info-Services Limited, and Quippo Telecom Infrastructure Limited—with the combined entity kicking off operations with 18,000 towers, thereby becoming the largest independent entity in this space—and with the highest tenancy ratios in the industry. Today, the combined entity has a portfolio of nearly 35,000 towers.

RELIANCE COMMUNICATION

Reliance Mobile (formerly Reliance India Mobile) launched on 28 December 2002, coinciding the occasion 70th birthday of Founder Chairman late Dhirubhai Ambani. His dream of revolution in telecommunication and communication industry was taken up by Anil Ambani . As a part of Anil Dhirubhai Ambani Group, Reliance Group ranks among India's leading private sector in terms of net worth. The group has range of business in the areas of Financial services, Power generation and distribution and telecommunications. With over 100 million subscribers, covering 24000 towns, 6 lakhs villages, Pan-India presence with high capacity integrated wireless and fixed line telecommunication services providing entire spectrum of telecommunication value chain solutions to individual and corporate clients. With the

latest CDMA2000 1X technology, Reliance Mobile offers enhanced voice clarity and data transfer speed of 144 Kbps help them to achieve a land mark subscriber base of 1 million in the month of July 2003, which helps them to get a prestigious Most Trusted Telecom Brand by AC Nielson in July 2003.

CUSTOMER BASE

The customer base of the service providers and their chronological increase in their customer base is presented in the table below:

Table No.3.1

Subscriber base in India (Figures in millions)

Sl. No	Operator	Financial Year 2007	Financial Year 2008	Financial Year 2009	Financial Year 2010
1.	Bharti	37.14	61.98	93.92	158.9
2.	BSNL	30.99	40.79	52.14	85.09
3.	Reliance	28.01	45.79	72.67	102.42
4.	Vodafone	26.44	44.13	68.77	130.9
5.	Tata	16.02	24.33	35.12	65.94
6.	Aircel	5.51	10.61	18.48	53.50

(source: Mobile Operators Association Of India)

India comprises four metropolitan cities, New Delhi, Mumbai, Kolkatta and Chennai. The customers in these cities shows special enthusiasm in maximizing the service offered, especially in Chennai the customers are aware of various service providers and their technological innovations. The subscriber base and its fluctuations with respect to various service providers is presented below.

Table 3.2

Subscriber base in Chennai

Sl.No	Operator	Jan'11	Feb'11
1.	Aircel Mobile Ltd	3820580	3896830
2.	Bharti Airtel	2960588	2995643
3.	Vodafone Essar	1988675	2009959
4.	BSNL	1473902	1489090
5.	TATA	1252179	1215630
6.	RELIANCE	1117498	1120683

(source: Mobile Operators Association Of India, Association Of Unified Telecom Service Providers Of India)

IMPORTANCE OF THE STUDY

“Aharnishan Sevamhe” – This is the slogan of Indian telecommunication department which means non-stop, day and night and round the clock services. The rationale behind telecommunications marketing is to make possible qualitative and quantitative improvements in their service profile in a cost-effective manner. Telecommunication is now universally recognised as one of the prime movers of the modern economy. International studies have established that for every 1% increase in teledensity, there is a 3% increase in GDP. Telecommunication sector was one of the departments which was opened up for privatisation. As on 28 February 2005, there were around 5.2 million mobile phones and 40 million fixed line telephone users in our country. Telecom Regulatory Authority of India (TRAI) regulates all these operators.

In Chennai city, six operators are providing their services. They are

Airtel – Largest service provider in India owned by Bharti Mobile

BSNL – State owned service provider

Aircel – A leading service provider in Chennai

Hutch – Service provider in India owned by Hutchison Telecom (India) which introduces a lot of value added services. Now the brand name is changed as Vodafone after a new management taken over it.

The above four are GSM service providers.

Reliance – Service Provider owned by Reliance Infocomm

Tata Indicom – Service provider owned by Tata Teleservices.

These two are CDMA operators.

All these operators are offering various value added services with state-of-the-art technology. They also give various offers to the consumers due to hectic competition and the consumers are flooded with various choices. This study aims to find the loyalty of mobile users and their expectations along with the methods followed by the service providers to fulfill the customers expectations.