

Sector Profile: Telecommunications

Telecommunication has been recognized world-over as an important tool for socio-economic development for a nation and plays a phenomenal role in growth and modernization of various sectors of the economy. Over the last few years, Indian telecom market has shown overwhelming growth thanks to domestic demand, policy initiatives undertaken by the government and admirable efforts by the players of the industry and in the process, has managed to emerge as one of the youngest and fastest growing economies in the world today. Factors like regulatory liberalization, structural reforms and competition played a very important part in this rapid transformation.

The fact that India is one of world's fastest growing telecom markets in the world, has acted as the primary driver for foreign and domestic telecommunication companies investing into the sector. It is also recognized as one of the most lucrative markets globally, resulting in massive investments being made in the sector both by the private and government sector in the last decade.

The telecom industry has witnessed significant growth in subscriber base over the last decade, with increasing network coverage and a competition-induced decline in tariffs acting as catalysts for the growth in subscriber base. The growth story and the potential have also served to attract newer players in the industry, with the result that the intensity of competition has kept increasing.

Liberalization of the sector has not only led to rapid growth but also helped a great deal towards maximization of consumer benefits, evident from a huge fall in tariffs. Telecom sector has witnessed a continuous rising trend in the total number of telephone subscribers. From a meagre 22.8 million telephone subscribers (wireless plus wire line) in 1999, it has grown to 926.53 million at the end of December, 2011, reaching teledensity of 76.86 %. The total number of urban subscribers today stand at 611.19 Million (65.59 %) and rural subscribers at 315.33 Million (34.41 %). Wireless telephone connections have contributed to this growth as the number of wireless connections rose from 35.61 million in 2004 to 893.84 Million at the end of December, 2011.

Also, broadband segment has seen significant growth with total internet subscribers reaching 20.99 million in September, 2011, which includes 13.30 broadband subscribers.

The industry has touched newer heights with the rollout of newer circles by operators, successful auction of third-generation (3G) and broadband wireless access (BWA) spectrum, network rollout in semi-rural areas and increased focus on the value added services (VAS) market.

Meanwhile, the introduction of Mobile Number Portability (MNP) in India has made the Indian Telecom market more competitive, in terms of service offerings and quality.

With lower voice tariffs and low ARPUs in India, emergence of new technologies and advancements towards 3G amongst others reasons are motivating operators to shift their focus on VAS. Particularly, past few years have been quite revolutionary for the industry as it

witnessed the emergence of smartphones, GPS enabled sets, and 3G handsets. Initiatives to connect the rural masses are already visible with service providers tie ups with content providers for services related to agriculture, weather and livelihood.

The emergence of the mobile has benefitted people across all walks of life. Going forward, it is expected to play a significant role in bridging the digital divide between the rich and poor, between near and far, thus in connecting the nation. It has not only become the primary communication medium for people, but is also finding numerous uses across various domains. Today, it is being used for banking transactions, making payments, acting as an educational and multimedia tool, etc. However, the urgent need is to deliver services that could enable efficient day- to- day life for the larger masses efficiently. It can be an efficient mode of spreading governance, and can also be used across verticals such as agriculture and healthcare. The rapid rise of high-end mobile phones (smartphones) has enabled the customers to access and utilize numerous software applications as utility or for entertainment.

The rapid pace of growth in telecommunications makes it necessary to develop India as a Global manufacturing hub. With its proven track record in the skill-intensive industries and the global trend to manufacture and source products in low cost countries, India is well placed to emerge as one of the leading hub for manufactured exports.

With the liberalization of the Indian economy, the telecom sector has become very attractive for mergers and acquisitions. M&A in India is subject to various laws the principle of them being The Companies Act 1956, Income Tax Act 1961 and the Takeover Code (for public listed companies). Regulatory considerations are also equally important to take note of in telecom M&A.

Financial Assistance

The Indian Telecom industry contributes 3 % in the GDP (2010). Foreign direct investment has been one of the major contributors in the growth of the Indian economy, and therefore, the need for higher FDI is felt across sectors in the Indian economy. The telecom sector has played a crucial role in attracting FDI in India. India's telecom sector received US\$ 1093 million in foreign direct investment (FDI) during the first quarter (April-November) of financial year 2010-2011.

Today, telecom is the third major sector attracting FDI inflows after services and computer software sector. In the telecom sector, FDI up to 49% is allowed under automatic route and beyond that up to 74% is permitted through the Foreign Investment Promotion Board (FIPB), a government body. As per the current telecom services policy, the sector has 74% of equity on basic cellular, unified access services and other value-added services.

An attractive trade and investment policy and lucrative incentives for foreign collaborations have made India one of the world's most attractive markets for the telecom equipment suppliers and service providers. Few such constructive policies are:

- No industrial license is required for setting up manufacturing units for telecom equipment.
- 100% Foreign Direct Investment (FDI) is allowed through automatic route for manufacturing of telecom equipments.
- Payments for royalty, lump sum fee for transfer of technology and payments for use of trademark/brand name on the automatic route.
- Foreign equity of 74% (49 % under automatic route) is permitted for telecom services - basic, cellular mobile, paging, value added services, NLD, ILD, ISPs - and global mobile personal communications by satellite.
- Full repatriability of dividend income and capital invested in the telecom sector.

Research & Development

India has proven its dominance as a technology solution provider. Efforts are being continuously made to develop affordable technology for masses, as also comprehensive security infrastructure for telecom network. Research is on for the preparation of tested infrastructure for enabling interoperability in Next Generation Network. Pilot projects on the existing and emerging technologies have been undertaken including WiMax, 3G etc. Emphasis is being given to technologies having potential to improve rural connectivity. Also to beef up R&D infrastructure in the telecom sector and bridge the digital divide, cellular operators, top academic institutes and the Government of India together set up the Telecom Centres of Excellence (COEs).

Seven Centres of Excellences in various field of Telecom have been set up with the support of Government and the participation of private/public telecom operators as sponsors, at the selected academic institutions of India.

The proposed benefits from the R&D initiatives by the Government are:

- Pre-eminence of India as a technology solution provider.
- Comprehensive security infrastructure for telecom network.
- Tested infrastructure for enabling interoperability in Next Generation Network.

To support Research & development in the country and promoting Start ups focussed on technology and innovation, a weighted deduction of 150% of expenditure incurred on in-house R&D is introduced under the Income Tax Ac. In addition to the existing scheme for funding various R&D projects have been funded through new scheme like Support International Patent Protection in Electronics & IT (SIP-EIT), Multiplier Grants Scheme (MGS).

The government has initiated the setting up of an Open Technology Center through NIC aimed at giving effective direction to the country on Open Technology in the areas of Open Source Solutions, (OSS), Open Standard, Open Processes, Open Hardware specifications and Open Course-ware. This initiative will act as a National Knowledge facility providing synergy to the overall components of Open Technology globally.

Regulations

1. The Indian Telegraph Act, 1885

This Act is one of the oldest legislations still in effect in India and is an Act to amend the law relating to telegraphs¹⁰ in India.

2. The Indian Wireless Telegraphy Act, 1933

This Act was enacted to regulate the possession of wireless telegraphy apparatus¹¹. According to this Act, the possession of wireless telegraphy apparatus by any person can only be allowed in accordance with a license issued by the telecom authority. Further, the Act also levies penalties if any wireless telegraphy apparatus is held without a valid license.

3. The Telecom Regulatory Authority of India Act, 1997

The Telecom Regulatory Authority of India Act, 1997 enabled the establishment of the TRAI. The role and functions of the TRAI have already been discussed in Chapter III above. Interestingly, the 1997 Act empowered the TRAI with quasi-judicial authority to adjudicate upon and settle telecom disputes. Later this Act was amended by the Telecom Regulatory Authority of India (Amendment) Act, 2000 to bring in better clarity and distinction between the regulatory and recommendatory functions of TRAI.

4. The Information Technology Act, 2000

In 2000, the Indian Parliament passed the Information Technology Act, 2000 (“**ITA**”) mainly to promote e-commerce and give legal recognition to electronic documents and digital signatures as means to authenticate electronic documents. Later, the Information Technology (Amendment) Act, 2008 (“**ITAA 2008**”) was passed which provided additional focus on information security as well as added several new sections on offences including cyber terrorism and data protection.

5. Communication Convergence Bill : In the year 2000, the Government of India introduced a proposed **Communication Convergence Bill** (the “Convergence Bill”). As its name indicates, the objective of the Convergence Bill is to establish a new “converged” regulatory framework to promote and develop the communications sector (including broadcasting, telecommunications and “multimedia”) in an environment of increasing convergence of technologies, services and service providers.

6. National Telecom Policies: Driven by various policy initiatives from NTP'94 and NTP'99, the Indian telecom sector witnessed a complete transformation in the last decade. But, since then there has been a rapid advancement of technology, and many changes have arisen in the telecom scenario in the world, thus, creating a need for reviewing the current telecom policy. National Telecom Policy 2012 is expected to ensure that India's growth doesn't slow down and it plays a leadership role effectively.

Challenges

Even though the Indian telecommunications sector has come a long way since the time of liberalization and promises growth, there are a number of issues which still pose a challenge to its progress. Two critical issues are:

(i) **Declining Average Revenue Per User ("ARPU"):** The Indian telecommunications sector is a highly competitive sector. A sustained price war in the industry has resulted in declining ARPUs. As a result, operators are focusing more on data and value added services to meet the revenue deficit caused by fall in revenue by their core business.

(ii) **Lack of Telecom Infrastructure:** Operators have to incur huge capital costs to provide telecommunications services in the rural areas of India. Added to this cost is the logistical challenge posed by the lack of supporting infrastructure such as lack of roads and electricity.

With new players coming in, the intensity of competition in the industry has increased, especially over the last four years. The market share of the telecom companies reflects the fragmented nature of the industry, with as many as 15 players.

Future prospects

As the fastest growing telecommunications market in the world, India is projected to have 1 billion telephones by 2015 and is estimated to become world's largest mobile phone market by subscriptions by 2013. With a large population yet to have access to telecommunication and teledensity still being 76.86 % and rural tele-density at 37.48 %, there is significant growth opportunity for the sector, especially in rural areas and 3G and BWA yet to make significant inroads.

India offers an unprecedented opportunity for telecom service operators, infrastructure vendors, manufacturers and associated services companies. A host of factors are contributing to enlarged opportunities for growth and investment in telecom sector:

- An expanding Indian economy with increased focus on the services sector
- Population mix moving favorably towards a younger age profile
- Urbanization with increasing incomes

Investors can look to capture the gains of the Indian telecom boom and diversify their operations outside developed economies that are marked by saturated telecom markets and lower GDP growth rates.

An attractive trade and investment policy and lucrative incentives for foreign collaborations have made India one of the world's most attractive markets for the telecom equipment suppliers and service providers.

Key factors, which will fuel the growth of the sector include increased access to services owing to launch of newer telecom technologies like 3G and BWA, better devices, changing consumer behaviour and the emergence of cloud technologies. Majority of the investments will go into the capital expenditure for setting up newer networks like 3G and developing the backhaul. Moreover, the introduction of Mobile Number Portability (MNP) in India has made the Indian Telecom market more competitive, in terms of service offerings and quality.