Growth of Indian Telecom Sector

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Telecom is one of the fastest-growing industries in India. Today India stands as the second-largest telecommunications market in the world. The mobile phone industry in India would contribute US$ 400 billion in terms of gross domestic product (GDP) of the country in 2014. This sector which is growing exponentially is expected to generate about 4.1 million additional jobs by 2020, as per Group Special Mobile Association (GSMA).

In the period April 2000 to January 2014, the telecom industry has got in foreign direct investments (FDI) of about US$ 59,796 million, which is an increase of 6 per cent to the total FDI inflows in terms of US$, as per report published by Department of Industrial Policy and Promotion (DIPP). India's global system for mobile (GSM) operators had 4.14 million rural subscribers as of January 2014, bringing the total to 285.35 million.

Data traffic powered by third generation (3G) services grew at 146 per cent in India during 2013, higher than the global average that saw usage double, according to an MBit Index study by Nokia Siemens Networks (NSN).

India's smartphone market grew by 171 per cent in 2013, to 44 million devices from 16.2 million in 2012, as per research firm IDC India. The increasing popularity of bring-your-own-device (BYOD) in the workplace is further adding momentum to the smartphone market.

Indian telecom industry has grown from a tele-density of 3.58% in March 2001 to 74% in June 2013. This great leap in both numbers of consumers as well as revenues from telecom services has not only provided sufficient contribution in Indian GDP growth but also provided much needed employment to India youth.

Market Size

Driven by strong adoption of data consumption on handheld devices, the total mobile services market revenue in India is expected to touch US$ 37 billion in 2017, registering a Compound Annual Growth Rate (CAGR) of 5.2 per cent between 2014 and 2017, according to research firm IDC.

India is expected to have over 180 million smartphones by 2019, contributing around 13.5 per cent to the global smartphone market, based on rising affordability and better availability of data services among other factors.&

According to a report by leading research firm Market Research Store, the Indian telecommunication services market will likely grow by 10.3 per cent year-on-year to reach US$ 103.9 billion by 2020.

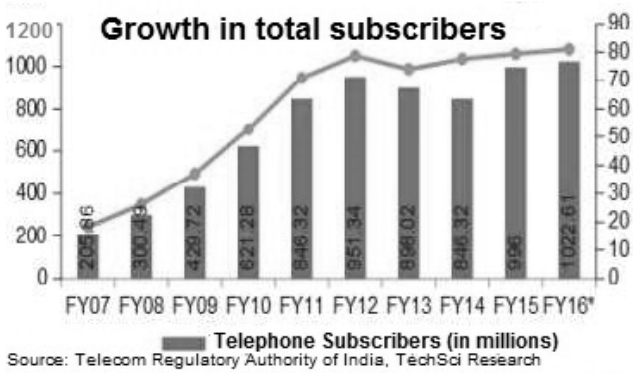
According to the Ericsson Mobility Report India, smartphone subscriptions in India is expected to increase four-fold to 810 million users by 2021, while the total smartphone traffic is expected to grow seventeen-fold to 4.2 Exabytes (EB) per month by 2021.

According to a study by GSMA, smartphones are expected to account for two out of every three mobile connections globally by 2020 making India the fourth largest smartphone market. Total number of Fourth-Generation (4G) enabled smartphone shipments in India stood at 13.9 million units in the quarter ending December 2015, which was more than 50 per cent of total shipments, thereby surpassing number of Third-Generation (3G) enabled smartphone shipments for the first time.^ Broadband services user-base in India is expected to grow to 250 million connections by 2017.

The service sector growth worldwide has been phenomenal which is reflected in its increased contribution to Gross Domestic Product (GDP) as well as employment generation mechanism. Liberalisation, Privatisation and Globalisation have brought unprecedented changes in the economic, trade, and industrial scenarios. India is fast moving from a protected economy to an open market economy and becoming integrated with the world economy. The change environment has exposed various organizations including the service sector to the challenges of competition, service quality, cost, and the competitive environment. It will help organizations to modernize. Some of those unable to cope with the changes may have to face the consequences of the survival of the fittest. India, like many other countries of the world, has adopted a gradual approach to telecom sector reform through selective privatisation and managed competition in different segments of the telecom market. To begin with, India introduced private competition in value-added services in 1992 followed by opening up of cellular and basic services for local area to private competition. Private competition was also introduced in National Long Distance (NLD) and International Long Distance (ILD) telephony at the start of the current decade. The Indian mobile services industry is moving in full swing, be it investment, subscriber base, technology or Value Added Services (VAS). Also the industry is coming up with innovative ways to lower their cost of operations. Apart from this, cut-throat competition in terms of technology as well as among the service providers has pushed the industry to innovate which has benefited the ultimate consumer. This section of the thesis through a light on the growth & development in Indian telecom sector and also give brief introduction of selected telecom operators.

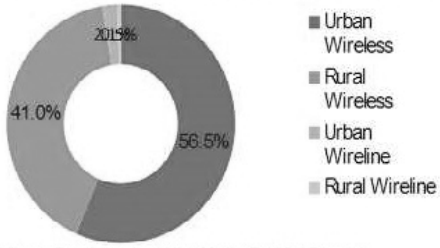
Telecom subscriber base expands substantially

- India is currently the second-largest telecommunication market and has the third highest number of internet users in the world
- Between FY 07-16* India's telephone subscriber base expanded at a Compound Annual Growth Rate (CAGR) of 19.5 per cent to 1,022.61 million and teledensity to 80.98
- In September 2015, total telephone subscription stood at 1,022.61 million, while teledensity was at 80.98 percent.



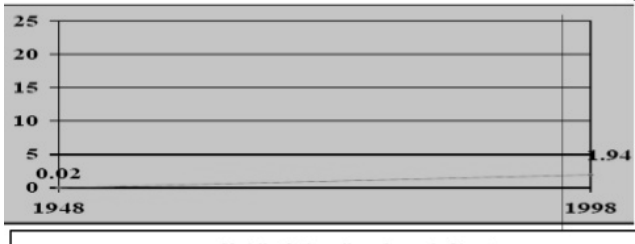
Source: Telecom Regulatory Authority of India, TechSci Research
Notes: CAGR - Compound Annual Growth Rate; FY16*- Till September 2015

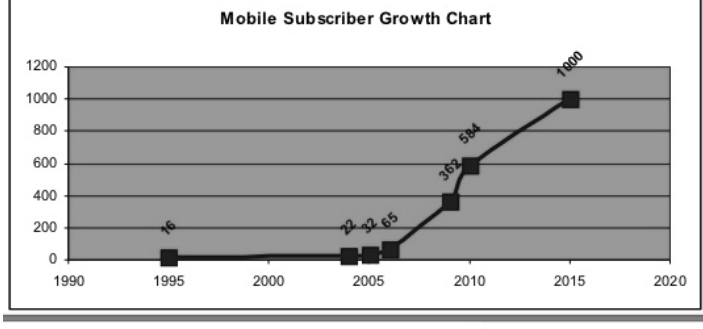
Composition of telephone subscribers (FY16*)



Source: Telecom Regulatory Authority of India, TechSci Research
Note: FY16* - Data as of September 2015

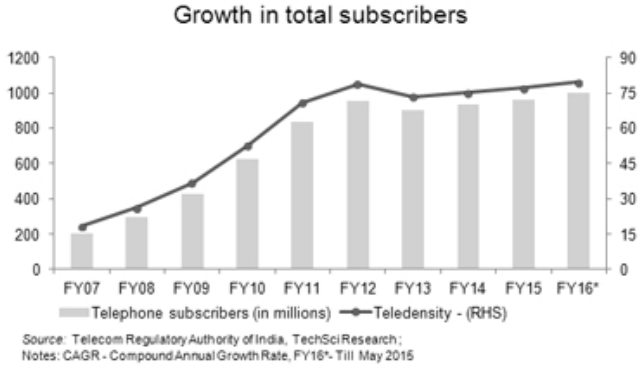
Telecom Growth Comparison :





Total No. of Mobile Subscriber in the year 2015 will be 1000 Million.

04/07/2010 ASHISH "GURU BHAI" SHARMAGROUP 7 23



Source: Telecom Regulatory Authority of India, TechSci Research;
Notes: CAGR - Compound Annual Growth Rate, FY16*- Till May 2015

Frontiers of Growth

3G and BWA services The commendable growth of the mobile sector in India is yet to be followed in broadband sector. While the last few years were witness to mobile revolution, the next few years look even more exciting in the field of broadband and mobile value added service (MVAS). After two decades of strong growth in voice services, data services will be the next trigger for growth in the Indian telecom market- for both the wire line and wireless segment. Data usage is expected to grow at a faster pace with 3G and BWA deployments. Increasing use of smart mobile devices like I-Phones are also expected to catalyze the data usage growth.

Value Added Services (VAS) The mobile value added services such as m-banking, m-education, m-governance, mhealth, m-agriculture, etc. has assumed significance in recent times due to the rapid growth in wireless subscriber base. Consequently, the mobile phones have transformed into a persuasive medium to deliver information services spanning various usage areas such as governance, commerce, agriculture, education and health. Thus, m-POWERING is playing an instrumental role in bringing about empowerment to all strata of society by their delivery of services.

Manufacturing The exponential growth witnessed by the telecom sector in the past decade has led to the development of the telecom equipment manufacturing and other supporting industries. With the advent of next-generation technologies and operators looking to roll out 3G and broadband wireless access services, the demand for telecom equipment has increased rapidly. In an attempt to capitalize on this opportunity, the government is focusing on developing the domestic manufacturing industry. The Indian equipment manufacturing sector has come a long way in the past few years. From being an import-centric industry, it is slowly but steadily moving towards becoming a global telecom equipment manufacturing hub.

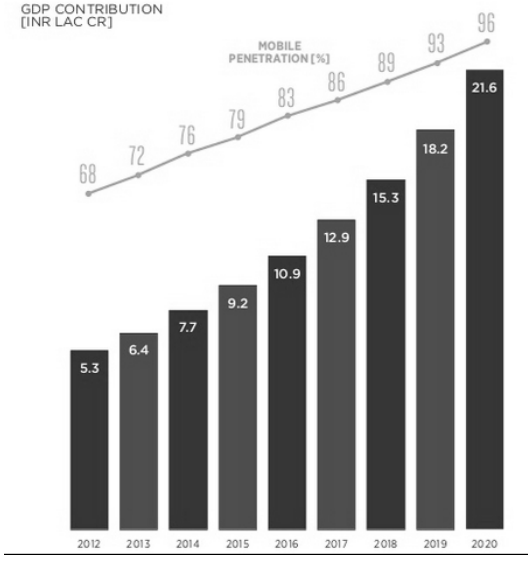
Changes in Structure of Telecom Sector in India Wire line vs. Wireless The growth of wireless services has been substantial, with wireless subscribers growing at a compounded annual growth rate (CAGR) of 42.7% since 2007. Wireless has overtaken wire lines. The share of wireless phones has increased from 80.19% in 2007 to 96.47% in December'11. On the other

hand, the share of wire line has steadily declined from 19.81% in 2007 to 3.53% in December'11. Wireless phones have increased as they are preferred because of their convenience and affordability. As a result, telephones today have come within the reach of the common man

Private vs. Public The fruits of the liberalization efforts of the Government are evident in the growing share of the private sector. The private sector is now playing an important role in the expansion of telecom services

Broadband Services Broadband connectivity is increasingly being seen as an integral driver of improved socio-economic performance. The Indian Government strongly believes that all citizens of the country should have access to broadband and the transformative opportunities. Broadband services empower masses. They allow individuals to access new career and educational opportunities, they help businesses reach new markets and improve efficiency and they enhance the Government's capacity to deliver critical services like health, banking and commerce to all of its citizens. Provision of Broadband in rural and remote areas will also help in bridging the "digital divide" and the widespread adoption of broadband in rural areas will have a multiplier effect over the long-term. It will help improve productivity in rural areas, help overcome the constraints of an inadequate transport infrastructure and overall improve the quality of life in rural areas. Given the significant economic and social benefits, expanding affordable access to broadband has become a high priority for the Government. The development of a robust broadband ecosystem will be the key to meet Government's objectives. It is a known fact that wireless is the quickest and most efficient medium to provide broadband services in the access network.

CONTRIBUTION OF THE MOBILE ECOSYSTEM TO GDP IN INDIA



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