



# Role of Telecommunication and Telecom Industry in Indian Economy

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## ABSTRACT

*The telecommunications industry is divided into following subsectors: Infrastructure, Equipment, Mobile Virtual Network Operators (MNVO), White Space Spectrum, 5G, Telephone service providers and Broadband.*

*As per GSMA, India is on its way to becoming the second-largest smartphone market globally by 2025 with around 1 billion installed devices and is expected to have 920 million unique mobile subscribers by 2025 which will include 88 million 5G connections.*

*Over the last thirteen years, the Indian Telecom Tower industry has seen a significant growth. An average of 29,000 new towers has been built per year.*

*It is also estimated that 5G technology will contribute approximately \$450 billion to the Indian Economy in the period of 2023-2040.*

**KEYWORDS:** MNVO, GDP, BCG, FDI.

## INTRODUCTION

Currently, India is the world's second-largest telecommunications market with a subscriber base of 1.16 billion and has registered strong growth in the last decade. The Indian mobile economy is growing rapidly and will contribute substantially to India's Gross Domestic Product (GDP) according to a report prepared by GSM Association (GSMA) in collaboration with Boston Consulting Group (BCG). In 2019, India surpassed the US to become the second largest market in terms of number of app downloads.

The liberal and reformist policies of the Government of India have been instrumental along with strong consumer demand in the rapid growth in the Indian telecom sector. The Government has enabled easy market access to telecom equipment and a fair and proactive regulatory framework that has ensured availability of telecom services to consumer at affordable prices. The deregulation of Foreign Direct Investment (FDI) norms have made the sector one of the fastest growing and the top five employment opportunity generator in the country.

## MARKET SIZE

The total number of internet subscribers increased from 778.09 million in March 2021 to 782.86 million in April 2021.

India is also the world's second-largest telecommunications market. The total subscriber base in the country stood at 1,203.47 million in April 2021.

Gross revenue of the telecom sector stood at Rs. 68,228 crore (US\$ 9.35 billion) in the third quarter of FY21.

Over the next five years, rise in mobile-phone penetration and decline in data costs will add 500 million new internet users in India, creating opportunities for new businesses.

## INVESTMENT/MAJOR DEVELOPMENT

With daily increasing subscriber base, there have been a lot of investment and development in the sector. FDI inflow into the telecom sector during April 2000 – March 2021 totalled US\$ 37.66 billion according to the data released by Department for Promotion of Industry and Internal Trade (DPIIT).

Some of the developments in the recent past are:

- In April 2021, Elon Musk's SpaceX has started accepting pre-orders for the beta version of its Starlink satellite internet service in India for a fully refundable deposit of US\$ 99. Currently, Department of Telecommunications (DoT) is screening the move and more developments will be unveiled soon.
- In March 2021, Vodafone Idea Ltd. (VIL) announced that the acquired spectrum in five circles would help improve



4G coverage and bandwidth, allowing it to offer 'superior digital experience' to customers.

- In March 2021, Advanced Television Systems Committee (ATSC) and Telecommunications Standards Development Society, India (TSDSI) signed a deal to boost adoption of ATSC standards in India in order to make broadcast services available on mobile devices. This allows the TSDSI to follow ATSC standards, fostering global digital broadcasting standard harmonisation.
- In December 2020, BSNL, in partnership with Skylotech India, announced a breakthrough in satellite-based NB-IoT (Narrowband-Internet of Things) for fishermen, farmers, construction, mining and logistics enterprises.
- In the first quarter of FY21, customer spending on telecom services increased 16.6% y-o-y, with over three-fourths spent on data services. This spike in consumer spending came despite of the COVID-19 disruption and lack of access of offline recharges for a few weeks
- India had over 500 million active internet users (accessed Internet in the last one month) as of May 2020.
- In June 2020, Jio Platforms Ltd. sold 22.38% stake worth Rs 1.04 trillion (US\$ 14.75 billion) to ten global investors in a span of eight weeks under separate deals, involving Facebook, Silver Lake, Vista, General Atlantic, Mubadala, Abu Dhabi Investment Authority (ADIA), TPG Capital and L. Catterton. This is the largest continuous fundraise by any company in the world.

## GOVERNMENT INITIATIVES

The Government has fast-tracked reforms in the telecom sector and continues to be proactive in providing room for growth for telecom companies. Some of the key initiatives taken by the Government are as follows:

- The Rs. 12,195 crore (US\$ 1.65 billion) production-linked incentive (PLI) scheme for telecom is expected to bring in investment of around Rs. 3,000 crore (US\$ 400.08 million) and generate huge direct and indirect employment.
- In April 2021, the government pointed out that firms such as Ericsson and Nokia are now eager to expand their operations in India, and global companies like Samsung, Cisco, Ciena and Foxconn have expressed interest to set up their manufacturing base in the country for telecom and networking products.
- In March 2021, TEPC (Telecom Equipment Export Promotion Council) organised India Telecom 2021—a platform for convergence of technologies and business exchange.
- The Union Cabinet approved Rs. 12,195 crore (US\$ 1.65 billion) production-linked incentive (PLI) scheme for telecom & networking products under the Department of Telecom.

- In 2021-22, the Department of Telecommunications has been allocated Rs. 58,737.00 crore (US\$ 8 billion). 56% allocation is towards revenue expenditure and the remaining 44% is towards capital expenditure.
- Under Union Budget 2021-22, the government allocated Rs. 14,200 crore (US\$ 1.9 billion) for telecom infrastructure that entails completion of optical fibre cable-based network for Defence services, rolling out broadband in 2.2 lakh panchayats and improving mobile services in the North East.
- On January 15, 2021, India and Japan signed an MoU to enhance cooperation in the field of Information and Communications Technologies. The MoU was signed between the Union Minister for Communications, Electronics and IT, Ravi Shankar Prasad, and the Japanese Minister for Internal Affairs and Communications, Takeda Ryota.
- On January 6, 2021, the Department of Telecommunications (DoT) issued Notice Inviting Applications (NIA) for auction of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1,800 MHz, 2,100 MHz, 2,300 MHz and 2,500 MHz bands. Last date for submission of applications for participation in the auction is February 5, 2021, and auction to commence online from March 1, 2021.
- In December 2020, the Union Cabinet, chaired by the Prime Minister, Mr. Narendra Modi, approved a proposal by Department of Telecommunications for setting up of Public Wi-Fi Networks by Public Data Office Aggregators (PDOAs) to provide public Wi-Fi services through Public Data Offices (PDOs).
- In December 2020, the Union Cabinet, chaired by the Prime Minister, Mr. Narendra Modi, approved the provision of submarine optical fibre cable connectivity between Mainland (Kochi) and Lakshadweep Islands (KLI Project).
- On November 4, 2020, The Union Cabinet, chaired by the Prime Minister, Mr. Narendra Modi, approved to sign a Memorandum of Understanding (MoU) between the Ministry of Communication and Information Technology and the Department of Digital, Culture, Media and Sports (DCMS) of United Kingdom Government on cooperation in the field of telecommunications/information and communication technologies (ICTs).
- On September 21, 2020, Prime Minister, Mr. Narendra Modi launched a project to connect all 45,945 villages in Bihar with optical fibre internet service. This project will be completed by March 31, 2021 at a cost of Rs. ~1,000 crore (US\$ 135.97 million); Rs. 640 crore (US\$ 87.01 million) of capital expenditure will be funded by Department of Telecommunications.
- In March 2020, the government approved the Production

Incentive Scheme (PLI) for Large-scale Electronics Manufacturing. The scheme proposes production-linked incentive to boost domestic manufacturing and attract large investments in mobile phone manufacturing and specified electronic components including Assembly, Testing, Marking and Packaging (ATMP) units.

- FDI cap in the telecom sector has been increased to 100% from 74%; out of 100%, 49% will be done through the automatic route and the rest will be done through the FIPB approval route. FDI of up to 100% is permitted for infrastructure providers offering dark fibre, electronic mail and voice mail.

## ACHIEVEMENTS

Following are the achievements of the Government in the past four years:

- Department of Telecommunication launched 'Tarang Sanchar' - a web portal sharing information on mobile towers and EMF Emission Compliances.
- Payments on unified payments interface (UPI) hit an all-time high of 2.30 billion (by volume), with transactions

worth ~Rs. 4.31 lakh crore (US\$ 59.08 billion) in January 2021.

- Over 75% increase in internet coverage from 251 million users to 446 million.

Revenue from the telecom equipment sector is expected to grow to US\$ 26.38 billion by 2020. The number of internet subscribers in the country is expected to double by 2021 to 829 million and overall IP traffic is expected to grow four-fold at a CAGR of 30% by 2021.

According to a Zenith Media survey, India is expected to become the fastest-growing telecom advertisement market, with an annual growth rate of 11% between 2020 and 2023.

The Indian Government is planning to develop 100 smart city projects, and IoT will play a vital role in developing these cities. The National Digital Communications Policy 2018 envisaged attracting investment worth US\$ 100 billion in the telecommunications sector by 2022. App downloads in India is expected to increase to 18.11 billion in 2018F and 37.21 billion in 2022F.

## Revenue and growth

The adjusted gross revenue in the telecom service sector was ₹160,814 crore (equivalent to ₹1.8 trillion or US\$25.5 billion in 2019) in 2017 as against ₹198,207 crore (equivalent to ₹2.3 trillion or US\$32.1 billion in 2019) in 2016, registering a negative growth of 18.87%. The major contributions to this revenue are as follows (in INR crores):

Service provider	Calendar year 2018-19 (in INR crores)	Calendar year 2019-20 (in INR crores)	% change	Q2 2019-20 (in INR crores)
Airtel	80,780.2	87,539.0	+08.37%	--
Reliance Jio	48,660	68,462	+40.69%	--
Vi	37,823.6	45,996.8	+21.68%	--
BSNL	19,308	18,906	-02.08%	--

### Note:

- Airtel acquired Telenor India in May 2018 and the data of Airtel and Telenor India has been merged.
- On 31 August 2018, Vodafone and Idea merged to form the world's second-largest telecom company, and the largest in India, officially known as VI and both the companies' data has been merged.
- On 1 November 2017, MTS India merged with Reliance Communications and their data has been merged.
- Videocon shut down its network and discontinued operations in the Gujarat and UP (West) circles on 26 December 2015, and in the Haryana, Madhya Pradesh, Bihar and UP (East) circles on 11 May 2016.
- Reliance Communications discontinued its wireless voice services on 29 December 2017, but continued its data and B2B services till 2018. Reliance Communications filed for bankruptcy as it was unable to sell its assets to Reliance Jio and closed its operations under mobile network division on 26 February 2019.
- On 28 February 2018 Aircel filed for bankruptcy at NCLT and has discontinued operations.
- Quadrant discontinued its wireless mobile services in April 2017; however, it has continued to provide wired line services in Punjab circle.
- In July 2016, Virgin Mobile India and T24 Mobile merged their virtual network operations into Tata Docomo.
- Bharti Airtel acquired the consumer mobile businesses of Tata Teleservices which include Tata Docomo in a debt-free deal on 1 July 2019.

## CONCLUSION

India's telecommunication network is the second largest in the world by number of telephone users (both fixed and mobile phone) with 1.053 billion subscribers as on 31 August 2016. It has one of the lowest call tariffs in the world enabled by mega telecom operators and hyper-competition among them. India has the world's second-largest Internet user-base. As on 31 March 2016, there were 342.65 million internet subscribers in the country. Indian telecom industry underwent a high pace of market liberalisation and growth since the 1990s and now has become the world's most competitive and one of the fastest growing telecom markets.

The Industry has grown over twenty times in just ten years, from under 37 million subscribers in the year 2001 to over 846 million subscribers in the year 2011.

Telecommunication has supported the socioeconomic development of India and has played a significant role to narrow down the rural-urban digital divide to some extent.

The rapid strides in the telecom sector have been facilitated by liberal policies of the Government that provides easy market access for telecom equipment and a fair regulatory framework for offering telecom services to the Indian consumers at affordable prices. (Source: Wikipedia)

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 3G and Broadband Wireless Access Services rolled out by operators, the demand for telecom equipment has increased. In an attempt to capitalize on this opportunity, the government and policymakers are 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.

The government is offering various sops to industry to boost domestic manufacturing in the field of electronics.

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.

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