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## HOLISTIC EVALUATION OF TELECOMMUNICATION INDUSTRY IN INDIA

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### Abstract:

*Telecommunication Industry in India has become one of the fastest growing industries and stood second-largest telecommunications market across the world. After the introduction of Liberalization, Privatization and Globalization (LPG) Policy in India in 1991, telecom sector in India has undergone a spectacular transformation and continue to grow at a rapid pace. The number of internet subscribers in the country increased at a CAGR of 21.36% from FY16 to FY20 to reach 743.19 million in FY20. Total wireless data usage in India grew 11.01% quarterly to reach 25,369,679 TB in Q1FY21. Keeping these in view, the present study analyzes the genesis or origin of Indian Telecom Sector, its secondary development of Telecommunication, development and milestones and examining the role of liberalization and privatization in telecommunication industry in India.*

Keyword: Telecommunication; privatization; liberalization.

### Introduction:

Communication has become a crucial infrastructure for socio-economic advancement. The growth of communications media stimulated the pace of social communication, migration, commerce, and different government activities. It has become fundamental for development of an innovative and technology galvanized society and spread in all parts of the country. Madden et.al (2000) in their studies 'Telecommunications and Economic Growth' pointed out that the ability of the telecommunications sector to provide an internationally competitive network for transferring information has important connotation for trade and economic growth. Due to various measures taken by the Government over the years, the Indian Telecom Sector has grown exponentially and has become the world's second-largest telecommunications, market with a subscriber base of 1.16 billion and has recorded strong growth in the last decade. The Indian mobile economy is flourishing on a fast rate and its contribution to India's Gross Domestic Product (GDP) is significant according to a report prepared by GSM Association (GSMA) in collaboration with Boston Consulting Group (BCG). India outrun USA to become the second largest market in terms of app downloads.

**Objectives:**

1. To assess the genesis and primary stage of Telecommunication in India.
2. To find out secondary development of Telecommunication, development and milestones.
3. To enquire the role of liberalization and privatization in telecommunication industry in India.

**Methodology:**

Secondary data was collected from various publications of central and state Governments, various publications of foreign government or of international bodies and their subsidiary organization, Books, magazines and periodicals reports and newspapers, e-resources and report and publication of various associations connected the business and telecom industry were collected.

**History of Telecommunication in India**

Telecom refers to the transfer of information between two or more distant points in space. It always involves electrical signals and nowadays people exclude postal or any other raw telecommunication methods from its definition. Different sectors such as telephone, internet and television broadcast industry in the country etc., constitute the Indian telecommunication industry in India. The history of Indian telecom can be started with the introduction of telegraph.

**The Genesis/ Origin**

The genesis of Indian Telecom Sector can be trace back to the year 1851 when the British Government laid down the first operational landlines in Kolkata. The first experimental electric telegraph line functioned between Calcutta and Diamond Harbour in 1850 and was opened for the use of the British East India Company in 1851. Different telephone services were introduced by opening telegraph facilities to the public in 1881 and telephone services were joined with the postal system in the year 1883. All these years, New Delhi remained as the head office of Telecom Sector. (Baruah et.al 2014). William O Shaughnessy, the pioneer of the telegraph and telephone in India during that time belonged to the Public Works Department and worked towards the development of telecom in India. In 1880 two telephone companies namely the Oriental Telephone Company Limited and the Anglo Indian Telephone Company Limited met the Government of India to establish telephone exchange in India but was declined. Soon, the Government reversed its earlier decision and a license was accepted to the Oriental Telephone Company Limited of England for opening telephone exchanges at Calcutta, Bombay, Madras and Ahmedabad and the first formal telephone service was established in the country.

**Developments and Milestones**

Pre-1902 – Cable telegraph.

1902 – First wireless telegraph station established between Sagar Island and Sand head.

1907 – First Central Battery of telephones introduced in Kanpur.

1913 – 1914 - First Automatic Exchange installed in Shimla.

1927 – Radio-telegraph system between the UK and India, with Imperial Wireless Chain beam stations at Khadki and Daund. Inaugurated by Lord Irwin on 23<sup>rd</sup> July by exchanging greetings with King George V.

1933 – Radiotelephone system inaugurated between the United Kingdom and India.

1953 – 12 channel carrier system introduced.

1960 – First subscriber trunk dialing route commissioned between Lucknow and Kanpur.

1975 – First Pulse Code Modulation (PCM) system commissioned between Mumbai city and Andheri telephone exchanges.

1976 - First digital microwave junction.

1980- First satellite earth station for domestic communications established at Sikandrabad (Uttar Pradesh - Noida Sector 62 Supply chain Management System (SCMS).

1983 – First analogue stored programme control exchange for trunk lines commissioned at Mumbai.

1984 – Centre for Development of Telematics (C-DOT) established for indigenous development and production of digital exchanges.

1995 – First mobile telephone service started on non- commercial basis on 15<sup>th</sup> August 1995 in Delhi.

1995 – Internet Introduced in India starting with Laxmi Nagar, Delhi on 15<sup>th</sup> August.

1995-96 Usage of automatic number announcement service introduced. Interactive fault repair service introduced.

1996-97 ISDN services introduced commercially. Auto com service introduced

1998 New ISP policy was announced

1998-99 MTNL became an ISD

1999 The government changed the prevailing fixed annual license fee to a revenue share regime, DOT is separated into two organs- DTS and DTO

1999-2000 MTNL Mumbai crossed the 2 million mark in subscriber base. MTNL became 100 per cent electronic

2000 - Telecom disputes, settlement and Appellate Tribunal was established, National Long Distance Service opened for private competition, Bharat Sanchar Nigam Limited is born on 1st October.

2000-01 MTNL launched its GSM service under the Brand Name “Dolphin” on 27th February, 2001

2001-02 MTNL got listed at New York Exchange on 6-11-2001.

2002 - VSNL came under private management, International Long Distance Service opened for private competition, Internet telephony was started

2003 - Paved the way for a calling party pays (cpp) regime. Subscriber no longer had to pay for incoming calls, making the mobile phone highly affordable to the low usage customers who mainly used it for incoming calls.

2005 - FDI 74 per cent, The per minute Access Deficit charge on domestic long distance calls reduced by up to 60 per cent and the ADC on international calls by up to 40 per cent, Union Budget 2003-04 cut the customs duties on telecom sector capital goods from 25 per cent to 15 per cent and on cell phone’s from 10 per cent to 5 per cent Union Budget 2004-05 exempted imports of capital goods for manufacture of mobile handsets from customs.

2006 - The per minute ADC for domestic calls replaced with a revenue share fee of 1.5% of non- rural (wire line) AGR, coupled with a sharp 60% drop in per minute ADC on international calls

2007 - ADC on percentage revenue share reduced to .75% from 1.5% of AGR. Per minute ADC on outgoing international calls reduced to zero, and on incoming international calls reduced to Rs.1, Roaming rental reduced to zero. Reduction of roaming tariffs to the extent of 22 per cent -56 per cent, Port charges reduced by 23-29 per cent

2007 - 2011 Having the world’s lowest call rates the fastest growth in the number of subscribers (45 million in 4 months); The fastest sale of million mobile phones (in a week); The world’s cheapest mobile handset; The world’s most affordable colour phone

2014 - Recommended by telecom regulator TRAI on spectrum sharing .

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).

2020 - 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).

2016-2020 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 2.2 billion in terms of volume with transactions worth ~Rs. 3.90 lakh crore (US\$ 53.14 billion) in November 2020.

2020 - Over 75% increase in internet coverage from 251 million users to 446 million.

## **Liberalization and Privatization**

Liberalization of Indian telecommunication industry was initiated in 1981. Contracts was signed between Prime Minister Indira Gandhi and Alcatel Centre for Information (CIT) of France to united with the state owned Telecom Company known as Indian Telephone Industries Limited (ITI) in an attempt to set up 5,000,000 lines per year. But due to political rivalry and opposition, the policy became futile. However, under the prime minister ship of Rajiv Gandhi, the government attempts to liberalize telecommunication industry by inviting Sam Pitroda, a United States (US) based Non-Resident Indian (NRI) and a former Rockwell International executive with an urge to establish a centre for Development of Telematics (C-DOT) which produced electronic telephone exchanges in India for the first time. Since 1985, the Department of Telecommunications (DoT) was detached from Indian Postal and Telecommunication Department and all the responsibilities for telecom services in the region fall under Department of Telecommunications (DoT). In 1986 Mahanagar Telephone Nigam Limited (MTNL) and Videsh Sanchar Nigam Limited (VSNL) were chiseled out of Department of Telecommunications (DoT) to drive the telecom services of metro cities (Delhi and Mumbai) and international long distance applications.

Due to expanding demand for telephones in the 1990s, Indian government realized the heavy pressure and decided to open up the telecom sector for private investment under Liberalization, Privatization and Globalization policy. The government of India was compelled to accept the LPG Policy to overcome the fact of the country's financial crises and the resultant balance of payments issue in 1991. Private investment was encouraged in the sector of Value Added Services and cellular telecom sector to boost competition among the private investors. In 1994, National Telecom Policy (NTP) was It was during this period that the Narsimha Rao led Government launched and the National Telecom Policy (NTP) in 1994 which produced transformation in different areas such as ownership, business and regulation of telecommunications infrastructure. The main objective of the policy was to augment the telecommunication facilities to all the villages in India.

To empower competition in the long distance carrier business, the World Bank and International Telecommunication Union (ITU) had advised the Indian government to liberalize long distance



services which will enable to release the monopoly of the state owned Department of Telecommunications (DoT) and Videsh Sanchar Nigam Limited (VSNL). This further reduced tariffs and enhanced the economy of the country. The Rao run government liberalized the local services, engaging the opposite political parties into confidence and encouraged foreign involvement in the long distance business. The country was split into 20 telecommunication circles for basic telephony and 18 circles for mobile services. These circles were further divided into category A, B and C depending upon the value of the revenue in each circle. The government then threw open the bids to single private company per circle along with government owned Department of Telecommunications (DoT) per circle. Two service providers were allowed per circle for cellular service and a 15 years licence was given to each provider. Despite all the enhancement and progress, the government launched Global System Mobile for Communications (GSM) face oppositions from Indian Telephone Industries (ITI), Department of Telecommunications (DoT), Mahanagar Telephone Nigam Limited (MTNL), Videsh Sanchar Nigam Limited (VSNL) and other labour unions, but they managed to keep away from all the impediments.

Telecom Regulatory Authority of India (TRAI) which was established in 1997 decrease the interference of government in determining tariffs and policy making. The shifting of political powers in 1999 under the leadership of Atal Bihari Vajpayee, Liberalization policy began reorganized and standardized. Telecom Disputes Settlement and Appellate Tribunal (TDSAT) were constituted in 2000 by Vajpayee government through an amendment of the Telecom Regulatory Authority of India (TRAI) Act, 1997.

The government became more liberal in creating policies and delivering licenses to private operators in March 2000. License fees were scale down for cellular service providers and increased the allowable stake to 74 per cent for foreign companies. Due to these factors, the service fees finally lessened and the call costs were decrease greatly permite very common middle class family in India to afford a cell phone. Almost 32 million handsets were sold in India. This information shows the upward surge of the Indian mobile market.

The liberal and reformist policies undertaken by the Government of India become influential with the rising consumer demand and this led to the potential growth in the Indian telecom sector. The deregulation of Foreign Direct Investment (FDI) norms have enabled the telecommunication sector one of the fastest developing and the top five employment opportunity generator in the country.

## Conclusions

It can be concluded that due to liberalization and privatization in the telecom industry, the country is empowered to facilitate technology driven society for the smooth sailing of the up gradation and advancement in all aspects of life. The Government of India has taken enormous steps in the telecom to penetrate in the new markets across the country by maintaining and adopting appropriate policies. Telecom sector in India is found to be in a flourishing path and with its ability will continue to thrive in the future also.

**Reference:**

<https://www.ibef.org/>

Acharya, R. & Patel, R. (2015), 'Contribution of Telecom Sector to Growth of Indian Service Sector: An Empirical Study', *Indian Journal of Science and Technology*, ISSN (Print): 0974-6846 ISSN (Online) : 0974-5645, Vol. 8(S4), pp: 101–105.

Annual Report of Telecommunication (2015- 2016), Department of Telecommunications, Ministry of Communications & Information Technology, Government of India, New Delhi.

Bharat Sanchar Nigam Limited (2012), 'History of Calcutta Telephones', Retrieved 21<sup>st</sup> July 2020.

Baruah, P. & Baruah, R. (2013), 'Telecom Sector in India: Past, Present and Future', *International Journal of Humanities and Social Science Studies (IJHSSS)*, ISSN: 2349-6959 (Online), ISSN: 2349-6711 (Print) Vol. 1, Issue 3, pp: 147-156.

Madden & Savage (2000), 'Telecommunications and Economic Growth', *International Journal of Social Economics*, Vol. 27, Issues (7-10), pp: 893 - 906.

Singh, F. & Sharma, R. (2007), 'Cellular Services and Consumer Buying behaviour in Amritsar City', *The ICFAI Journal of Consumer Behaviour*, Vol.2, No.3, pp: 39 - 51

