



PERFORMANCE ANALYSIS OF TELECOM INDUSTRY – A STUDY OF SELECT ENTERPRISES

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Abstract

The performance of Telecom Industry is presented in the paper. The Telecom industry has been striving to new heights after liberalization. Being one of the most important industries that connects through transmission of information in various forms, the industry is been supporting to the development of the nation. In this paper, an attempt is made to review the gross revenue in Telecom Industry, emerging trends in Telecom industry, impact of National Digital Policy, Telephone Subscribers. The study is based on secondary sources of data. The paper highlights on analyzing the performance of the Telecom Industry in terms of subscribers base in urban and rural areas and subscribers of select telecom operators.

Key words: *FDI, Subscribers, Tele Density, TRAI.*

1. Introduction

The telecommunication industry is made up of enterprises that make communication possible on a global scale, whether through the phone, the internet, over airwaves, or cables. These enterprises create the infrastructure that allows data as text, voice, audio, or video to be sent anywhere in the world. The Telecommunications industry is divided into following sub industries: Infrastructure, Equipment, Mobile Virtual Network Operators (MNVO), White Space Spectrum, 5G, Telephone service providers and Broadband. Telecommunications encompasses many industries including radio and television broadcasting, cable and satellite carriers and providers, internet service providers (ISPs), wired and wireless telecommunications carriers, Voice over Internet Protocol (VoIP), and radar and satellite operations.

2 Overview of Indian Telecom Industry

India's Telecom industry has witnessed stupendous growth in the last few years. Today, India's telecom Industry boasts of having the second-largest subscriber base, with a total of 1.72 Bn wireless and wireline subscribers expected by 2023. As per the Telecom Regulatory Authority of India (TRAI)'s Indian Telecom Services Performance Indicators, India's tele density, which denotes the number of telephones per 100 population. It has increased by nearly 10% since March 2014.

The telecom industry is one of the most important industries in the Indian economy, with a 6.5% contribution to the country's GDP. In the last quarter of FY 2021-2022, the industry's gross revenue was INR 85,356 Cr (\$11.38 Bn). The industry includes Infrastructure, Equipment, and Mobile Virtual Network Operators (MNVO), White Space Spectrum, 5G, Telephone service providers and Broadband. The industry has played a vital role in India's economic growth and development over the past few decades.



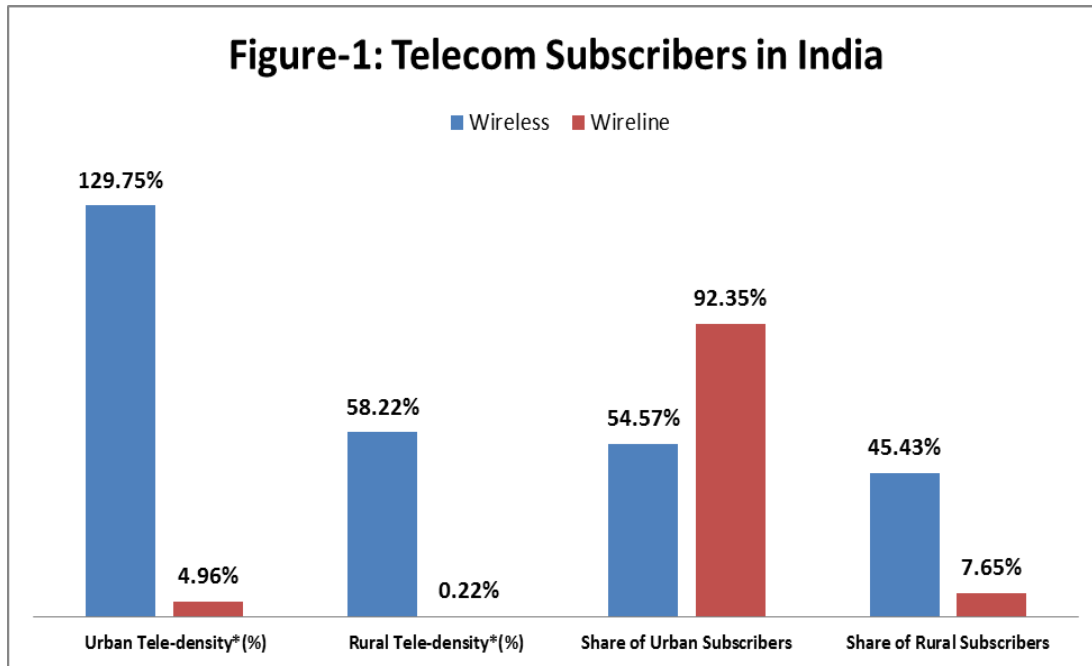
The telecommunication industry is instrumental in the development and poverty reduction through the empowerment of the masses, unlocking economic growth, employment generation, bringing in FDI, and digital transformation of essential services like education, healthcare, financial services, etc. Target 9c of the Sustainable Development Goals (SDGs) advocates significantly increasing access to information and communications technology and striving to provide universal and affordable access to the Internet in least-developed countries by 2020.

India has an overall tele-density of 84.79%, of which, the tele-density of the rural market, which is largely untapped, stands at 58.11% while the tele-density of the urban market is 133.45 %. By the end of March, 2023, the total number of internet subscribers is expected to rise to 881.25 Mn (narrowband + broadband subscribers), out of which 40.62% of the internet subscribers belonged to the rural areas.

Table-1, Telephone Subscribers in India

Particulars	Wireless	Wireline	Total (Wireless+ Wireline)
Total Telephone Subscribers (Million)	1149.11	25.97	1175.08
Net Addition in August, 2022 (Million)	1.08	0.34	1.43
Monthly Growth Rate	0.09%	1.34%	0.12%
Urban Telephone Subscribers (Million)	627.09	23.98	651.07
Net Addition in August, 2022 (Million)	0.35	0.33	0.67
Monthly Growth Rate	0.06%	1.38%	0.10%
Rural Telephone Subscribers (Million)	522.02	1.99	524.01
Net Addition in August, 2022 (Million)	0.73	0.016	0.75
Monthly Growth Rate	0.14%	0.83%	0.14%
Overall Tele-density*(%)	83.27%	1.88%	85.15%
Urban Tele-density*(%)	129.75%	4.96%	134.71%
Rural Tele-density*(%)	58.22%	0.22%	58.44%
Share of Urban Subscribers	54.57%	92.35%	55.41%
Share of Rural Subscribers	45.43%	7.65%	44.59%
Broadband Subscribers (Million)	783.57	30.37	813.94

Source: reports of Ministry of Communications, August 31, 2022



The statistical figures show that, the total telephone subscribers increased to 1175.08 million with majority of share occupied by wireless with 1149.11 million subscribers and 25.97 million by Wireline subscribers, the urban subscribers share in wireless telecom is 54.57% dominating than rural subscribers share in wireless services. In Wireline subscribers share, the urban subscribers share is 92.35% and rural subscribers share is 7.65%. the broad band subscribers in wireline is recorded 783.57 million and 30.37 in Wireline segment. Further, the records show that, In the month of August, 2022, 11.35 million subscribers submitted their requests for Mobile Number Portability (MNP). With this, the cumulative MNP requests increased from 724.79 million at the end of July-22 to 736.14 million at the end of August-22, since implementation of MNP.

The industry's exponential growth over the last few years is primarily driven by affordable tariffs, wider availability, roll-out of Mobile Number Portability (MNP), expanding 3G and 4G coverage, evolving consumption patterns of subscribers, Government's initiatives towards bolstering India's domestic telecom manufacturing capacity, and a conducive regulatory environment.

To further expedite digital connectivity, the Government has approved the auction of IMT/5G spectrum for deployment of 5G services within the country. This auction was successfully held by the end of July, 2022 and grossed \$18.77 bn.

The Telecom industry is the 4th largest industry in terms of FDI inflows, contributing 6% of total FDI inflow, and contributes directly to 2.2 Mn employment and indirectly to 1.8 Mn jobs. Between 2014 and 2021, the FDI inflows in the Telecom industry rose by 150% to \$20.72 bn from \$8.32 bn during 2002-2014. 100% Foreign Direct Investment (FDI) has now been allowed in the Telecom. As on 31st December, 2022, TRAI reports show that, a total of 83.22 crore broad band connections are operational and 4 million people are engaged in telecom industry. The 5G bas has increased to 125 million and over 100 smart cities are covered with advanced telecom facilities.



Over the past three decades, India has witnessed rapid development in the telecom industry, especially in the mobile communications segment. This progress can be attributed, in part, to the liberalization of the market. Nowadays, mobile phones are more common than landlines among the population. The wireless market is dominated by private enterprises, including Reliance Jio, Bharti Airtel, and Vodafone Idea, and the competition for market leadership is intense. In the financial year 2022, Reliance Jio achieved revenue of more than one trillion rupees, making it the largest company in India’s telecom industry.

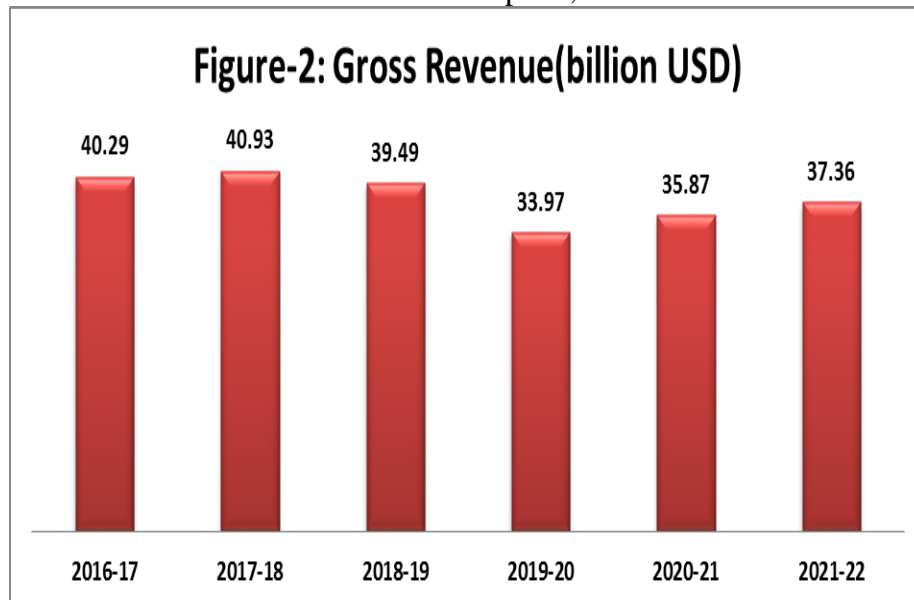
3 Gross Revenue in Telecom Industry

The figures presented in table-1 show that, the gross revenue of Telecom industry has been inconsistent in between 2016-17 to 2021-22. The figures show that, the gross revenue from telecom industry in India is 40.29 billion USD in 2016 and reached highest during 2017-18 and very inconsistent since 2018. Least performance was recorded in 2019-20 and highest performance was shown in 2016-17. In terms of growth rate, highest growth rate equals to 6.21 is observed during 2017-18 and least growth rate was shown 2019-20.

Table-1, Gross Revenue from Indian Telecom Industry

Year	Gross Revenue(billion USD)	Growth Rate
2016-17	40.29	--
2017-18	40.93	6.21
2018-19	39.49	-3.50
2019-20	33.97	-13.90
2020-21	35.87	5.59
2021-22	37.36	4.15

Source: IBEF Reports, 2022



4 Emerging trends in performance of Indian Telecom Industry

The Indian telecom industry witnessed several significant developments and trends during 2021-2022:

1. **5G Preparation:** India continued its preparations for the rollout of 5G technology. Several telecom operators conducted trials and collaborations with equipment vendors to test 5G



networks and technologies. The government also announced plans for spectrum auctions to enable the deployment of 5G services.

2. **Rise in Data Consumption:** With the increasing adoption of smartphones and digital services, data consumption continued to surge. This trend was accelerated by the COVID-19 pandemic, which led to a greater reliance on digital communication and entertainment platforms.
3. **Competition and Consolidation:** The telecom industry in India remained highly competitive, with major players such as Reliance Jio, Bharti Airtel, and Vodafone Idea vying for market share. However, the industry also witnessed consolidation, with smaller players exiting the market or merging with larger ones to remain viable.
4. **Financial Challenges:** Vodafone Idea, one of the major telecom operators in India, faced significant financial challenges during this period. The company struggled with mounting debt and losses, leading to concerns about its sustainability in the market.
5. **Government Policies and Regulations:** The Indian government continued to introduce policies and regulations aimed at promoting the growth of the telecom industry while safeguarding consumer interests. This included initiatives to improve broadband connectivity in rural areas and measures to ensure data privacy and security.
6. **Expansion of Broadband Services:** There was a continued focus on expanding broadband services across the country, with initiatives such as BharatNet aimed at bridging the digital divide between urban and rural areas.

5. Study on National Digital Communications Policy, 2018

The National Digital Communications Policy 2018 was drafted as a roadmap to help realize the potential of the industry. The ambitious policy aimed to achieve the following objectives by 2022:

1. Provisioning of Broadband for All
2. Creating 4 Mn additional jobs in the Digital Communications industry
3. Enhancing the contribution of the Digital Communications industry to 8% of India's GDP from ~6% in 2017
4. Propelling India to the Top 50 Nations in the ICT Development Index of ITU from 134 in 2017
5. Enhancing India's contribution to Global Value Chains
6. Ensuring Digital Sovereignty

The 2018 Policy estimated that India's digital economy, due to the high penetration of mobile phones and the Internet, has the potential to reach \$1 Trillion by 2025. To propel India's telecom industry towards this direction, the 2018 policy underlined the achievement of the following goals:

1. Attracting investments of \$100 Bn in the Digital Communications Industry
2. Increasing India's contribution to Global Value Chains
3. Creation of innovation-led Start-ups in the Digital Communications industry
4. Creation of Globally recognised IPRs in India
5. Development of Standard Essential Patents (SEPs) in the field of digital communication technologies
6. Train/ Re-skill 1 Mn manpower for building New Age Skills
7. Expanding the IoT ecosystem to 5 billion connected devices
8. Accelerating the transition to Industry 4.0
9. To achieve the above-mentioned goals and unlock the potential of the industry, the Government of India has taken various measures:



Foreign Direct Investment: The Government of India approved 100% FDI in the telecom industry under an automatic route to encourage investment. This step will help 4G proliferation, infuse liquidity and create an enabling environment for investment in 5G networks.

Production Linked Scheme, with a financial outlay of INR 12,195 Cr, was launched in 2021 for a period of five years to provide a 4% to 7% incentive on incremental sales over the base year to promote the manufacturing of design-led telecom and networking products manufacturing in India. The scheme provides support under the following categories:

- a. Core Transmission Equipment
- b. 4G/5G, Next Generation Radio Access Networks and Wireless Equipment
- c. Access & Customer Premises Equipment (CPE), Internet of Things (IoT) Access Devices and Other Wireless Equipment
- d. Enterprise equipment: Switches, Routers
- e. Other products, as decided by the Empowered Group of Secretaries

6 Emerging Dimensions of Indian Telecom Industry

The India Telecom Market size is estimated at USD 48.61 billion in 2024, and is expected to reach USD 76.16 billion by 2029, growing at a CAGR of 9.40% during the forecast period (2024-2029).

- a. According to the IBEF, India has the world's second-largest telecom market. The total subscriber base, wireless subscriptions, and wired internet subscriptions have increased steadily. As of April 2022, teledensity stood at 84.88%, total broadband subscriptions increased to 788.77 million, and the overall subscriber base stood at 1.16 billion.
- b. In the first quarter of FY22, total wireless data usage in India increased by 16.54% quarterly to 32,397 PB. In the third quarter of FY21, 3G and 4G data usage contributed 1.78% and 97.74%, respectively, to total wireless data usage. In the same quarter, the share of 2G data use was 0.48%.
- c. The Department of Telecommunications (DoT) in India released the draught Telecom Bill 2022, which intends to alter the relationship between the government and the telecom industry. The main idea is to combine three acts (the Indian Telegraph Act 1885, the Indian Wireless Telegraphy Act 1933, and the Telegraph Wires (Unlawful Protection) Act 1950) into one.
- d. The first draught was recently used for public/stakeholder feedback. The law focuses primarily on the ease of doing business, providing sufficient infrastructure, making better use of the "valuable" spectrum, and establishing norms and procedures for litigation. Some key amendments are OTT players coming under a telecom infrastructure push, licensing regime, limiting, and (Telecom Regulatory Authority of India) TRAI.
- e. The telecom industry in India is expanding due to increasing end-user applications and growth in markets like IoT, cloud, data centers, and 5G. The country is also witnessing an increase in internet consumption. Market players are developing new internet plans to fulfill the growing demand for internet services and grab a more significant portion of the market.
- f. According to the announcement given by the telecom minister of India at TV9's Global Summit, 5G will be available in 20-25 towns and cities by the end of 2022, most likely by August or September.



7. Conclusions

The liberal and reformist policies of the Government of India have been instrumental along with strong consumer demand in the rapid growth of the Indian telecom industry. The Government has enabled easy market access to telecom equipment and a fair and proactive regulatory framework, that has ensured the availability of telecom services to consumers at affordable prices. The deregulation of Foreign Direct Investment (FDI) norms have made the industry one of the fastest-growing and the top five employment opportunity generator in the country. The study on Indian telecom show that, the subscribers base has been widely increasing due to rising need for the customers to depend on telecommunications and using telecom as a source of work in daily life. The Gross Revenue in Telecom Industry show that, the growth rate is high in the 2017-18 period and declined in the next two years. However, the industry is able to recover despite the impact of COVID-19 on majority of the service industries. The study on emerging trends in performance of Indian Telecom Industry show that, the expected boom for 5G services, rising data consumption needs, financial challenges are expected to support for the growth of Telecom industry. Analysis on National Digital Policy show that, FDI and production linked schemes is expected to further increase in next 5 years. With the rising demand for telecom services, the industry is expected to reach new heights in the next decade.

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