



Determinants of Growth of Indian Telecom Industry

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Abstract:

In recent time period telecommunication had become an important part of every economy of the world. Same hold true with Indian economy .Telecommunication network in India form the second largest network on the basis of fixed and mobile phones. At the same point of time with lowest call tariffs globally it enabled hyper-competition among MNC's. It has world second largest internet user base. As per the internet world stats base in the country stood with 462 Million internet user till year 2016. Major Indian telecommunication comprise of telephony, internet and television broadcasting. In this research paper, emphasis being placed on to bring to light the development of telecommunication sector in India. It also uncovers the importance of telecom sector in India and the various factors that have played a major role in facilitating the growth of telecom sector in India. Data has been collected from multiple sources including books, journals, websites, newspapers etc. The paper also describes the current scenario of Indian telecom sector.

Keywords: *Determinants of Growth of telecom; Telecommunication Sector*

1. Introduction

Every day, in our work and in our leisure time, we come in contact with and use a multiple modern communication systems and communication media, the most common being the phone, radio, TV, and the Internet. Through these media we are able to communicate (nearly) instantaneously with people on different continents, transact our daily business, and receive information about various developments and events of note that occur all around the world. Electronic mail and facsimile transmission have made it possible to rapidly communicate written messages across great distances. Can you imagine a world without telephones, radio, and TV? Yet, when you think about it, most of these modern-day communication systems were invented and developed during the past century.

A world without telecommunications would not be possible; society has made itself so used to this type of technology that the world would end up collapsing if it was taken away. The reason for the tremendous growth of telecommunications is because, as people and cities throughout the planet grew, we needed a better way to relay messages between one another. The greatest technological advancement that we could have possibly got from this is the creation of phone and the Internet. The phone was a major piece of communication, whereby you could instantly communicate with another person that was on the other side of the world. Almost every household now has at least one phone, with most having several.

The Telecommunications industry today is a key enabler of productivity across economies and societies. The Telecom industry is not only a significant contributor towards the economic activities of countries, but also towards the growth of other industries. In recent times, developing nations have witnessed significant transformation within this sector due to the impact it has had on their economies. The emerging economy like India have been impacted the most by the rapid growth of the Telecom industry in the recent decade.

2. Review of literature

India is among the prime and fastest growing economy in the world today. With population beyond one billion, and historically the country have a rich and long history, making them world leader until the 19th Century. (Enrico and Marcello, 2011). The telecom industry is a stimulating industry to study, not only due to its unpredictable nature in terms of technological revolution and its policies, but also due to the high growth rate of this industry over the past few decades and the significant contribution of the industry to the economies of these nations. India is now among the world's largest telecom market and according to analysts' figures, there are more than 1 billion cellular subscribers signing up every week. Indian telecom industry is one of the fastest growing industry with an expected growth rate of over 26% and generated employment opportunities for about 10 million people (PTI, 2007). The number of subscribers were added at a rapid pace as which enhances to the growth and position of the industry. Though it has made the telecom one of the most profitable sectors today, it has also had a negative effect on the other hand. For instance, India recently viewed a scandal in the telecom ministry that has changed the nature and environment of foreign investment flowing into the country (Kate and Leila, 2012).

3. Growth in telecom

Telecommunication basically is the diffusion of signals over a distance for the purpose of communication, though the know-how involved in communicating has changed significantly over the years. Like telecommunications itself, the telecommunications industry is broader than it was in the past. Telecommunication has an important social, traditional and economic impact on the modern society. In 2008, estimates placed the telecommunication industry's revenue at \$3.85 trillion or just under 3 percent of the gross world product (Plunkett Research Limited, 2010). The telecom industry is one of the world's fastest growing industries regardless of what the indicators being measured according to Wauschkuhn (2001).

The telecom industry in India comparatively new compared to their western counterparts, but now it is growing and evolving at an indescribable pace. As a result of being a high profit producer, the telecommunications industry has traditionally been a representative of the government and owned by the state. But over the last two decades, there has been a concerted effort to loosen the restraints of executive control (Deutsche Bank, 2004). On one hand, it has taken the form of denationalization of the state owned telecommunications; and on the other hand, it has opened up the domestic market to provide licenses to new entities for bringing in competition to the existing monopoly operators. According to figures from 2006, the Mobile subscribers in India were growing at a CAGR of around 85% since 1999 and over 4 million mobile subscribers were being added every month (TRAI, 2006).

4. Indian Telecom

“Comment: Politics and economics of Telecom liberalization in India” by Chowdary T.H. published in the Journal of Telecommunications Policy in 1998, defines the intangible circumstantial to more than 40-year monopoly of the Department of Telecommunications over Indian telecommunications. It sprints how the monopoly was relieved between 1986 and 1991 and the government had to give up its policy of dominant planning and control (Chowdary, 1998). This was the phase of pre-reforms in Indian telecom sector, which plays a vital role in setting the scene for growth post the 1991 reforms,

The analysts' report published by Ernst and Young in association with FICCI titled, “Enabling the next wave of telecom growth in India – Industry inputs for National Telecom Policy 2011” is a inclusive report about the growth of the telecom sector in India over the past decade. This report pathways the changes in terms of technological improvements, business dynamics and socioeconomic environment over the years. The research program studies in detail all the key segments of the telecom landscape — wireless, wire line, broadband, infrastructure, NLD, ILD, value-added services (VAS), equipment manufacturing, infrastructure and convergence. Moreover, it also identifies and evaluates the critical success factors that are applicable across all telecom segments such as spectrum, USOF, licensing framework, FDI, security, consumer affordability and the role of the regulator (Ernst

and Young, FICCI, 2011). Last but not least, it also includes comprehensive interviews conducted with senior executives in the Indian telecom sector, which provides a firsthand perspective about various stakeholders involved in the telecom sector. Though the state owned telecom company Bharat Sanchar Nigam Limited (BSNL) remains as the pioneer in the telecom market of India, private operators obtained a high market share (Arun, 2011), among which, India's largest mobile operator Bharti leads the pack with over one-fifth of the telecom market, followed by 16.71% from Reliance who is the third largest mobile operator, 16.52% from Vodafone as the fourth largest and 11.16% from the fifth largest mobile transport TATA Group business.

5. Objective of the Study

The main aim of this paper is to study the performance of the Indian Telecom Industry. The specific objectives of the study are as follows:

5.1 Primary Objective

To evaluate the performance of Indian telecom industry over the period of time.

5.2 Secondary Objective

To analyse the determinants that influence telecom industry.

6. Determinants Affecting the Growth of the Telecom Industry and their Current State

6.1 Increasing Affordability of Handsets

The extraordinary growth in the Indian telecom industry was primarily sponsored by the spectacular rise in wireless subscribers, which encouraged mobile handset makers to enter the market and to provide to the growing demand. Further, the makers presented lower-priced handsets with add-on services to cater to the increasing number of subscribers from different strata of the society.

6.2 Liberalisation

The facilitation of telecom agreements has played a major role in the development of the Indian telecom industry. The liberalisation policies of 1991 and the resulting invasion of private companies have led the industry on a high growth way and have enlarged the level of rivalry. Post-liberalisation, the telecom industry has established more funds and has implemented higher technology.

6.3 Prepaid Cards Fetch in New Users

In the late nineties, India was familiarized to prepaid cards, which was yet another landmark for the wireless sector. Prepaid cards attracted more users into the industry besides depressing the credit risk of service providers due to its sincere payment concept. Prepaid cards were fairly a wonder among first-time users who desired to control their bills and students who had restricted resources but greater need to be connected. Pre-paid cards greatly helped the cellular market to grow rapidly and cater to the untapped market. Further, the introduction of innovative schemes like recharge coupons of smaller denominations and life time incoming free cards has led to an exponential growth in the subscriber base.

7. Outline of Calling Party Pays (CPP)

The CPP regime was introduced in India in 2003 and under this regime, the calling party who initiated the call was to bear the entire cost of the call. This regime came to be applicable for mobile to mobile calls as well as fixed line to mobile calls. So far India had followed the Receiving Party Pays (RPP) system where the subscriber used to pay for incoming calls from both mobile as well as fixed line networks. Shifting to the CPP system has greatly fuelled the subscriber growth in the sector.

8. Increased Competition & Declining Tariffs

Liberalisation of the telecom industry has fuelled intense competition, especially in the cellular segment. The ever-increasing competition has led to high growth of subscribers and has put pressure on tariffs, which have seen a sharp drop over the years. When the cellular phones were introduced, call rates were at a peak of Rs 16 per minute and there were charges for incoming calls too. Today,

however, incoming calls are no longer charged and outgoing calls are charged at less than a rupee per minute. Thus, the tariff war has come a long way indeed. Increased competition and the subsequent tariff war have acted as a major catalyst for attracting more subscribers. Apart from these major growth drivers, an improved network coverage, entry of CDMA players, growth of value-added services (VAS), advancement in technology, and growing data services have also driven the growth of the industry.

9. Altering Demographic Profile

The altering demographic profile of India has also played a significant role in subscriber growth. The altered profile is characterised by a large young population, a growing middle class with growing disposable income, urbanisation, cumulative literacy levels and higher flexibility to technology. These new features have increased the need to be associated always and to own a wireless phone and therefore, in present times mobiles are perceived as a utility rather than a luxury.

10. 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:

- High capital investments
- Well-established players who have a nationwide network
- License fee
- Continuously evolving technology
- Decline Average Revenue per User
- Lack of Telecom Infrastructure

11. Current Scenario

As per IBEF report telecom subscriber base had expands significantly India is currently the second-largest telecommunication market and has the third highest number of internet users in the world. India's telephone subscriber base expanded at a CAGR of 19.96 per cent, reaching 1058.86 million during FY07–16. In March 2016, total telephone subscription stood at 1,058.86 million, while teledensity was at 83.36 percent.

At the same point of time as per the TRAI reports Wireless segment dominates the market, In March 2016, the wireless segment (97.62 per cent of total telephone subscriptions) conquered the market, with the wire line segment accounting for an overall share of 2.4 per cent with Urban regions accounted for 57.6 per cent share in the overall telecom subscriptions in the country, while rural areas accounted for the remaining share.

12. Market Size

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

India is probable to have over 180 million smart phones by 2019, backing around 13.5 per cent to the worldwide smart phone 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, smart phone subscriptions in India is expected to increase four-fold to 810 million users by 2021, while the total smart phone traffic is expected to grow seventeen-fold to 4.2 Exabyte (EB) per month by 2021.

According to a study by GSMA, smart phones are expected to account for two out of every three mobile connections globally by 2020 making India the fourth largest smart phone market. Total number of Fourth-Generation (4G) enabled smart phone 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 smart phone shipments for the first time. Broadband services user-base in India is expected to grow to 250 million connections by 2017.

13. Investment

With daily increasing subscriber base, there have been a lot of investments and developments in the sector. The industry has attracted FDI worth US\$ 18.38 billion during the period April 2000 to March 2016, according to the data released by Department of Industrial Policy and Promotion (DIPP).

Some of the major developments in the recent past are:

LeEco, a Chinese technology company, has entered into a partnership with Compal Technologies and invested US\$ 7 million to set up manufacturing facility at Greater Noida in order to start manufacturing Le2 smart phones in India.

Chinese telecom gear maker Huawei has set up its largest global service centre (GSC) at Bengaluru in India, with an initial investment of Rs 136 crore (US\$ 20.28 million), which will extend its support to Huawei's domestic and international telecom carrier customers in about 30 markets across Asia, Middle East and Africa.

Chinese smart phone maker Gionee, which currently assembles smart phones in partnerships with contract manufacturers Foxconn and Dixon, plans to invest Rs 500 crore (US\$ 74.56 million) to set up a manufacturing facility in India.

Singapore Telecommunications Limited (Singtel), the major shareholder in Bharti Airtel, announced that it has signed an agreement with its majority owner Temasek Holdings Private Limited to purchase a 7.39 per cent stake in Bharti Telecom Limited, the parent company of Bharti Airtel Limited, in a deal worth US\$ 659.51 million.

Axiata Digital, a subsidiary of Malaysia's largest telecom firm Axiata Group Berhad, has made its entry into Indian e-commerce market by investing Rs 100 crores (US\$ 14.91 million) in Bengaluru-based Store King.

Chinese smartphone manufacturer One Plus has partnered with Foxconn to start manufacturing its products in India as part of its plan to have 90 per cent of the devices sold in India to be locally manufactured by the end of 2017.

Government of India to make a windfall gain from sale of spectrum in 2016-17 and achieve its fiscal deficit target of 3.5 per cent of Gross Domestic Product (GDP) for the year.

Vodacom SA, a subsidiary of Vodafone Plc, has entered into an agreement with Tata Communications Ltd to buy the fixed-line assets of TataComm's South African telecom subsidiary Neotel Pty Ltd.

Reliance Communications Ltd, India's fourth largest mobile services provider, has agreed to acquire Sistema Shyam Tele Services Ltd (SSTL), the local unit of Russian company Sistema JSFC, in a deal valued at Rs 4,500 crore (US\$ 671.01 million), which includes payments to the government for spectrum allotted to Sistema.

American Tower Corporation, a New York Stock Exchange-listed mobile infrastructure firm, has acquired 51 per cent stake in telecom tower company Viom Networks in a deal worth Rs 7,635 crore (US\$ 1.13 billion).

Swedish telecom equipment maker Ericsson has announced the introduction of a new radio system in the Indian market, which will provide the necessary infrastructure required by mobile companies in order to provide Fifth-Generation (5G) services in future.

14. 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 other major initiatives taken by the government are as follows:

The Ministry of Communications & Information Technology has launched Twitter Sewa, an online communications platform for registration and resolution of user complaints in the telecommunications and postal sectors.

The Telecom Regulatory Authority of India (TRAI) has released a consultation paper which aims to offer consumers free Internet services within the net neutrality framework and has proposed three models for free data delivery to customers without violating the regulations.

The Government of India has liberalised the payment terms for spectrum auctions by allowing two options of payments to telecom companies for acquiring the right to use spectrum, which include upfront payment and payment in instalments.

The Department of Telecommunications (DoT) has amended the Unified License for telecom operations which will allow sharing of active telecom infrastructure like antenna, feeder cable and transmission systems between operators, thereby lowering the costs of operations and leading to faster rollout of networks.

The Telecom Regulatory Authority of India (TRAI) has recommended a Public-Private Partnership (PPP) model for BharatNet, the central government's ambitious project to set up a broadband network in rural India, and has also envisaged central and state governments to become the main clients in this project.

The Ministry of Skill Development and Entrepreneurship (MSDE) signed a Memorandum of Understanding (MoU) with Department of Telecommunication (DoT) to develop and implement National Action Plan for Skill Development in Telecom Sector, with an objective of fulfilling skilled manpower requirement and providing employment and entrepreneurship opportunities in the sector.

The Telecom Regulatory Authority of India (TRAI) has directed the telecom companies or mobile operators to compensate the consumers in the event of dropped calls with a view to reduce the increasing number of dropped calls.

15. Road Ahead

India will emerge as a leading player in the virtual world by having 700 million internet users of the 4.7 billion global users by 2025, as per a Microsoft report. With the government's favourable regulation policies and 4G services hitting the market, the Indian telecommunication sector is expected to witness fast growth in the next few years.

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