

A Study on Digitalization and Growth of Service in Telecom Industrial Sector



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Abstract

IN today's world telecom services has progress in communications networks and the massive increase has tremendously grown up and computational ability have been among the major drivers of economic liberalization and globalization. The process of economic liberalization has been helped in no of small industries which is measured by the introduction of competition in private players and various provision of telecommunications services in India, once considered a natural monopoly. The emergence of competition and the accompanying technological progress resulted in dramatic reduction in the pricing of telecommunications services in India and is one of the principal reasons for the expansion of the knowledge-based services sector in which India enjoys a recognized competitive advantage. Telecommunication sector reform and development in India has been a definite success. By December 2017, the telecommunications sector in India constituted over 3 per cent of GDP and possesses the second largest stock of mobile and internet subscribers in the world. The achievements can be attributed to a combination of factors, including private sector participation, technological innovations and an enabling institutional and regulatory environment. The objective of the paper is to find out growth of service in telecom industrial sector. The paper investigate the effects of internal and external related to telecom services.

Keywords: Internet, Subscribers (Wireless & Wireline), Telecom Services.

Introduction

Telecom services are required to run a business or organization successfully. Telecom services can save a lot of time as well as money. Organizations are able to gain more profits as telecom services are able to provide most convenient services in less time and those services will be definitely cost effective. Telecom services are very important to deal with international clients. It's not only very helpful for marketing but also help the companies in their promotional programs.

India is the second most populated country in the world. It is having total geographical area of about 3,287,590 sq km. Population of India is about 1.35 billion as per census of 2018. India has a rapid growing market for Telecom. At present, there is addition of about six millions mobile telephones on an average every month. India is divided into 23 telecom service areas/ circles covering the entire country. India has the fourth largest telecom network in the world with a subscriber base of 241 million.

Today the telecom services are used by 1,123.96 million¹ customers across education, agricultural, industry, private & government sectors all over the country. Actually the country is witnessing a telecom revolution over the last two decades. Overall teledensity i.e. number of connections per 100 population has increased from less than 1 percent in 1994, when murmurs of reform of the telecommunications sector were first heard in India, to more than 90 percent in December 2017. The initial National Telecom Policy (NTP) of 1994 set the stage for private sector entry, but it wasn't until 1997 that an independent regulatory body, the Telecom Regulatory Authority of India (TRAI) was established and not until the beginning of this century that the rewards of competition began to manifest in sector outcomes. Riding on increasing competition, the evolution of wireless technologies, growing mobile penetration, and declining prices, the telecom sector arguably surged ahead of other infrastructure heavy sectors like electricity and roads to register very high rates of growth and impacts. Besides, India has the intrinsic advantage of being endowed with a large addressable market.

Review of Literature

Dinesh Kurmar Pandlya, Mazahludul Haque Choudhury (2014²) "A Study of customer satisfaction on telecom service providers," the main aim of this paper was to probe the customers satisfaction on cellular services on the basis of some fourteen such service counts that the cellular service providers offered to the customers in the present market scenario. The study indicates that the customers have shown their satisfaction on GPRS service (3.34), festival offer service (3.32), free roaming service (3.29), validity service (3.21), bonus service (3.36) and online recharge service (4.5). However the customers have reflected their dissatisfaction with the service quality of network (2.9), customer care (2.94), SMS packs (2.74), free talk time (3.16), connection charges (3.71), Ease of availability of the retailer selling recharge coupon (3.12), ease of availability of retailers transferring recharge voucher (3.06).

Sinha Sidharth (2000³) has made a study on "Price Regulation of Telecommunication Services: TRAI's First Tariff order" reveal about the control of pricing methods by Telecom Regulator Authority of India. Now day's companies are offering different type of services to their customers. The rates depend upon the service, usage, level or value of service and market position. But companies are not giving concentration about the regulation of prices. The companies are fixing their prices on their own and hence they are controlled by the TRAI. TRAI regulates and gives terms and conditions on fixing prices. This study also explains the formalities and procedures in cellular communication mentioned by the TRAI.

Sinhas and Wagh (2008⁴) In their article "Analyzing Growth of Cellular Telecom Sector and Understanding Consumer's preferences and choices on the use of cell phone", 2008 has studies the growth and performance of cellular telecom sector. The study measures consumer choices, preferences regarding mobile services and mobile usage. The study was based on primary data, collected from businessmen, employees, students, agriculturalists and others. The Indian telecom sector has emerged as the fastest growing telecom market in the world. With more affordable services, increased penetration and a supportive government along with regular fall in tariffs in the sector has brought significant changes in number of consumers and usage of cellular telecom services. However, with galloping achievements, there are few challenges too, to be overcome by the Indian telecom industry to ride high on the next growth wave.

Among the fastest growing sector of the economy the Indian telecom sector continued to maintain its growth during the year as one of the key sectors responsible for the economy's impressive performance. The sector has been growing in the range of 20 to 40 percent during the last three years (2002-05). The telecom sector is getting more sops from the government, which will help it in growing faster more to align with objective of achieving the goal of reaching 250 million subscribers and a tele-

density of 22% by 2007, reducing urban and rural disparities.

The study area is Janupur, Eastern Uttar Pradesh district and sample size was 100 respondents and survey collected through questionnaire. They study concludes that majority of the consumers are prepaid consumers and prefer lower tariff followed by better service and considered 30 paise as ideal call rate. Further study found that majority of the consumers is satisfied with service provided by mobile service provider. Further analysis was made that there us lack of coordination between service providers, handset manufactures and customers. Ultimately, the coordination between service providers and mobile phone manufactures play an important role in satisfying needs of mobile phone users. The study provides various thoughts and open up vistas for the mobile service providers to gain momentum and technological breakthrough in such a way so that this should be able to reach to the common man of the country.

DR. SREEKUMAR & D. MENON (2015⁵), "ATTRITION AMONG THE EMPLOYEES OF PRIVATE TELECOM SERVICE PROVIDERS IN SOUTH INDIA". It is important to recognize some of the behaviors that should not be carried out in the workplace. Attrition is one such behavior persisting in organizations. Attrition in work place are complex phenomena that have significant implications for organizations and individuals alike. Attrition is a withdrawal behavior. India is the fastest growing telecom market in the world. The booming telecom industry has been attracting large amount of investments in the country.

SulaimonOlanrewaju ADEBIYI, Hamed Ademilekan SHITTA &Olanrewaju Paul OLONADE (2016⁶), "DETERMINANTS OF CUSTOMER PREFERENCE AND SATISFACTION WITH NIGERIAN MOBILE TELECOMMUNICATION SERVICES". In this research paper mobile telecommunication industry in Nigeria had grown over a decade in Nigeria and one of the main concerns of the service providers is to increase the number of customers, retaining the existing ones and preventing some from leaving. This study assessed of customer preference and satisfaction in mobile telecommunication industry in Nigeria, using descriptive statistics, correlation and regression analysis.

The primary data for the study is collected directly from target respondents through structured questionnaire. The secondary data for the study is collected from different sources such as technical and journals, articles, newspapers, magazines, internet, periodicals, books, reports, publications of associations related to mobile phone service providers. The sample size for the study is 250. The research instrument was a structured questionnaire, which had two sections, the first section of the questionnaire was based on the personal data of the respondents, while the second section asked questions related to the subject on the basis of the research objectives using constructs, namely

customer satisfaction and preferred network (dependent variable), service quality, price/billing, promotional strategies and customer service/care, each had between 4 to 6 related questions on a 5-point Likert scales with 5 point allocated to strongly agree and 1 point to strongly disagree. The questionnaire was personally administered by the researcher to ensure timely filling and return.

Objective of the study

1. To study the growth of telecom industry.
2. To study the position of internet subscribers in India.
3. To study the growth of public & private sector.

Research Methodology

This study is totally based on secondary data and it refers various journal,article ,telecom annual reports & website .

Regulatory Framework

The Telecom Regulatory Authority of India (TRAI) was established in the year 1997 by an Act of Parliament viz. Telecom Regulatory Authority of India Act, 1997, to regulate the telecommunication services and to protect the interests of service providers and consumers of telecom services. The Government, through a notification dated 9th January, 2004, has brought the broadcasting and cable television services within the ambit of telecommunication services in the country. In 2004, TRAI was thus vested with the powers to regulate broadcasting & cable TV services also in the country. The Government continues to be the administrator for the policy and licensing function.

As per the Telecom Regulatory Authority of India Act, 1997 [as amended by TRAI (Amendment) Act, 2000], the Authority shall consist of a Chairperson and not more than two whole-time Members and not more than two part-time members. The Chairperson and other members of the Authority shall hold office for a term not exceeding three years. The authority functions with a Secretariat headed by a Secretary and assisted by various divisional heads⁸.

The functional divisions of TRAI are as follows:

1. Administration & Personnel Division
2. Broadcasting & Cable Services Division
3. Converged Network Division
4. Economic Division
5. Financial Analysis and Internal Finance & Accounts Division
6. Fixed Network Division
7. Legal Division
8. Mobile Network Division
9. Quality of Service Division
10. Regulatory Enforcement Division

A staff of 160 (as on 31.03.2007) is handling the work in the Secretariat, which performs the tasks assigned to it by the Authority in the discharge of its functions. Wherever necessary, consultants are engaged.

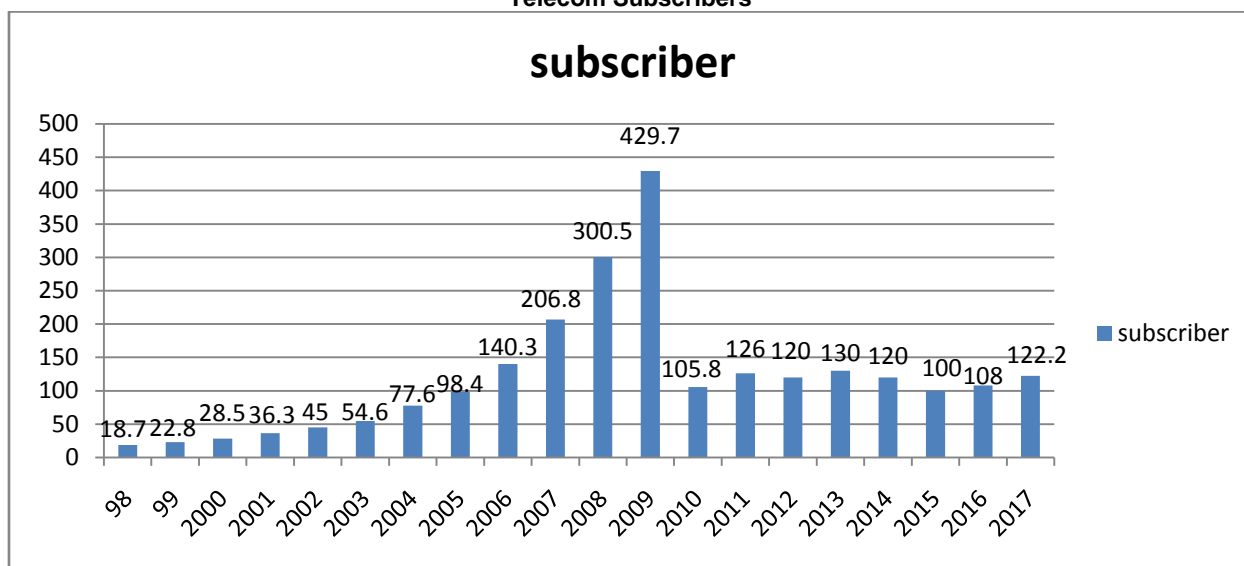
Public Sector

After the privatization of Videsh Sanchar Nigam Limited (VSNL) in 2002, only two premier PSUs, MTNL and BSNL operate in India and provide various telecom services. As noted earlier, MTNL operates in Delhi and Mumbai and BSNL provides services to the remaining country. In the post-liberalization era, these PSUs not only have made significant progress but also have provided stiff competition to their private counterparts.

Private Sector

Private operators have played a very crucial role in the growth of the telecommunication industry, primarily in the mobile services. With the liberalization of the telecom industry, the private sector has been increasing its foothold in the telecom services space. After the introduction of National telecom policy (NTP)-99, the contribution of private players towards telecom services has witnessed rapid strides. While the private sector is instrumental in providing both fixed line as well as wireless services, it is mainly active in the wireless segment. The fixed lines account for only about 2% of private sector's total subscriber base. While some private players have a pan-India presence, there are many regional players that cater to only certain service areas.

Telecom Subscribers



Source: Annual Report DOT, TRAI, 2009 & Telecom Statistic India-2017.

Although the subscriber base of public entities has also expanded, it has grown at a much lower rate as compared with private players.⁹ During 1998-2017, the subscriber base of PSU operators grew by merely 122.18 mn. The public sector has witnessed sustained depletion in its share in the total subscriber base over the years, as it has been on a comparatively lower growth trajectory.

The share of private sector in the total subscriber base has increased substantially from 4.7% in FY98 to 89.8% in FY17. Even though these figures signify the dominance of the private sector in terms of subscriber base, it is important to note that the prominence of private and public sector service

providers varies in different segments of the telecommunication industry.

Wireline Services

The wire line segment includes basic wire line services rendered to households, commercial units and to service providers such as public call offices. While the incumbent PSUs have been the dominant players in wire line service, some private players have been gradually making their presence felt in this segment. As on March 31st 2008, 5 licensed private operator groups were providing wire line connections in addition to the incumbent BSNL and MTNL

List of service providers providing wireline services along with their area of operation	
Service Providers	Area of Operation
BSNL	21 circle (Except Delhi & Mumbai)
MTNL	2 Circle (Delhi & Mumbai circles only)
Bharti Airtel Ltd	17 circle –Except Assam,Orissa,Jammu &Kashmir ,Bihar ,North East and Himachal Pradesh
Tata Teleservices (Maharashtra)Ltd	2 circle-only Maharashtra and Mumbai
Tata Teleservices Ltd	20 circle – and Except Assam, Jammu& Kashmir North East.
HFCL Infotel Ltd	1 circle (Punjab circle only)
Shyam Telelink Ltd	1 circle(Rajasthan circle only)
Reliance	21 circle –(Except Assam and North East)

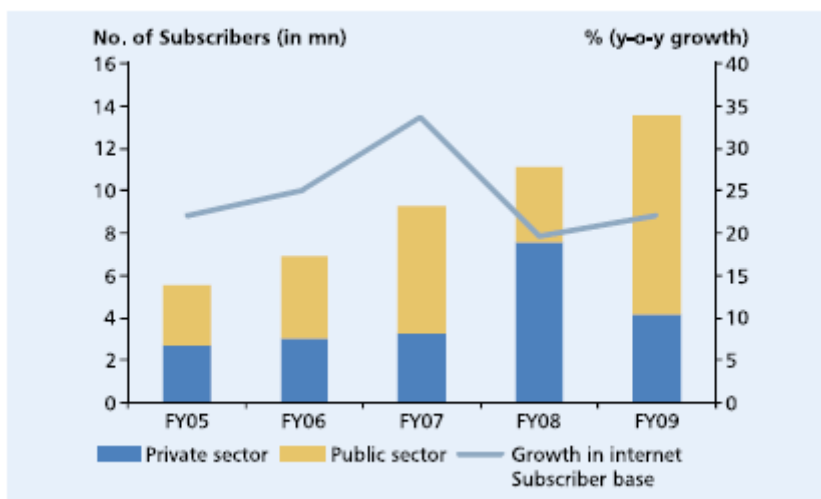
Source: TRAI (March 31, 2008)

Internet Services

Internet services in India have witnessed significant growth in the last few years owing to increased presence of the private players and emergence of new technologies. A significant improvement has also been seen in the quality of internet services given the substantial up gradation of

telecom infrastructure. The subscriber base of internet services reached 13.50 mn on March 31, 2009 as compared with 0.09 mn in 1997. During the last 5 years (FY05-FY09), the subscriber base of internet services registered an average annual growth of 24.46%, primarily driven by the rapid growth in subscriber base of the public sector players.

Chart 2.9: Growth in Internet Subscriber Base



Source: TRAI

Source: TRAI Annual report 2009

The public sector players dominate the internet market accounting for almost 69.30% of the total internet subscriber base. Among the public sector players, BSNL rules the internet provision market with a market share of around 53.61% followed by MTNL that accounted for 15.69% at the end March 31, 2009. Among the private players, BhartiAirtel Ltd has the highest internet subscriber base of 1.08 mn followed by Reliance

Communications Infrastructure Ltd, which has a subscriber base of 0.93 mn.

In addition to the internet subscribers, around 117.82 mn wireless data subscribers also access the internet through wireless (GSM and CDMA) networks; in fact, broadband connections also have witnessed significant growth in the past few years. According to the Broadband Policy 2004, the broadband connection is an 'always-on' internet

access with a minimum speed of 256 Kbps from the Internet Service Provider's (ISP) Node to the customer premises equipment (CPE). The broadband subscriber base has surged to around 6.20 mn by end

March 09 as against 0.18 mn at end March 05, registering a CAGR of around 142% during this period.

Segment	Mode of Access								Total Subscribers (in million)	
	Wired Subscribers (in million)		Wireless Subscribers (in million)							
			Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT)		Mobile Wireless (Phone + Dongle)		Total Wireless			
	Dec-15	Dec-16	Dec-15	Dec-16	Dec-15	Dec-16	Dec-15	Dec-16	Dec-15	Dec-16
Broadband	16.51	18.14	0.49	0.59	119.53	217.36	120.02	217.95	136.53	236.09
Narrowband	3.47	3.36	0.04	0.02	191.63	152.03	191.67	152.05	195.13	155.41
Total	19.98	21.51	0.53	0.61	311.16	369.39	311.69	370.00	331.66	391.50

Source: TRAI Annual Report 2016

Broadband Service (Download Speed \geq 512 Kbps)

The total number of broadband subscribers increased from 136.53 million at the end of Dec-15 to 236.09 million at the end of Dec-16. Out of which wired broadband subscribers are 18.14 million and wireless broadband subscribers are 217.95 million.

Top five broadband (wired+wireless) service providers in term of subscribers are Reliance Jio (72.16 million), Bharti (43.56 million), Vodafone (35.02 million), Idea (27.04 million) and BSNL (20.36 million). In wired broadband segment, BSNL holds 54.85% market share with 9.95 million subscribers followed by Bharti with 2.04 million subscribers. In wireless broadband segment, Reliance Jio holds 33.11% market share with 72.16 million subscribers followed by Bharti (19.05%) with 41.53 million subscribers. Mobile Device Users (dongle + phone) constitute 92.07% of total broadband subscribers at the end of Dec-16.

Conclusion

Telecom services are required to run a business or organization successfully. Telecom services can save a lot of time as well as money. Organizations are able to gain more profits as telecom services are able to provide most convenient services in less time and those services will be definitely cost effective. Telecom services are very important to deal with international clients. It's not only very helpful for marketing but also help the companies in their promotional programs. Telecom service are very fastly growing because of internet service through wireless (GSM and CDMA) networks; in fact, broadband connections also have witnessed significant growth in the past few years. According to the Broadband Policy 2004, the broadband connection is an 'always-on' internet access with a minimum speed of 256 Kbps from the Internet Service Provider's (ISP) Node to the customer premises equipment (CPE). The total number of broadband

subscribers increased from 136.53 million at the end of Dec-15 to 236.09 million at the end of Dec-16. Out of which wired broadband subscribers are 18.14 million and wireless broadband subscribers are 217.95 million.

It come to the conclusion that telecom services achieving a high growth in telecom industrial sector in India.

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