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Telecommunication Sector in India Post Liberalization Scenario

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Abstract:

The telecommunication services have emerged as a vital instrument for overall development of a nation. It has become a basic infrastructure for the economic development of a country. Telecommunication sector is one of those sectors which has shown a tremendous growth after India's liberalization policy of 1991. This paper attempts to analyze the history and growth of Indian telecommunication sector in the post liberalization era. The study reveals that there is positive correlation between increase in subscriber base and increase in GDP. Data has been collected from various sources, websites, reports etc. The paper presents the changed scenario of telecommunication sector from pre-liberalization to post-liberalization.

Keywords: Telecommunication sector, liberalization, wireless, wireline, public, private

1. Introduction

Telecommunication Sector has been recognized as a one of the important tools needed for rapid growth & development of various sectors of any economy. It has emerged as one of the fastest growing markets in the world. This sector has shown a remarkable growth all over the world during the last decade having a multiplier effect on all the economies in the form of increasing efficiency. The Indian telecommunication network (with 971.01 million telephone connections including 944.81 million wireless telephone connections up to December, 2014) is the second largest network in the world after China (DOT Annual Report 2014-15)

The telecommunication sector has also started contributing significantly in India's Gross Domestic Product (GDP) growth. This contribution has increased five times in mere three years as it was 5-6 percent in 2009 in comparison to 1 percent in 2006 (PB press release by media Mughals) and even it is about 3% in 2013. (Department of Telecommunications)

In this paper, an effort has been made to examine the growth of telecommunication sector in India in post liberalization era. Starting from the pre-liberalization era, it highlights some of the factors that contributed to this changed scenario. This paper is organized in to three sections, Section-I analyses telecommunication sector's performance in pre-liberation era. Section-II discusses National Telecom policy (NTP) and growth of telecommunication network under post liberalization era. Section-III examines the role of telecommunication sector in national economy in terms of its contribution to increase GDP.

Main objectives of this paper are:-

- 1. to highlight the history of Indian telecommunication sector.
- 2. to study the performance and growth of Indian telecommunication sector.
- 3. to discuss market, share of public and private sector in Indian telecommunications.
- 4. to show the changed composition of telecommunication sector in India.
- 5. to explore the relation between telecommunication sector and GDP (Gross Domestic Product) of India.

2. Section - I

2.1. Pre-Liberalization Era

The telecommunication sector has been operating in India for more than 125 years. Telephone services were started in India in 1881 and the telecommunication sector remained a public monopoly up to the middle of 1980's. It was first time in 1980's when private sector was allowed to manufacture telecommunication equipment in 1985. Department of Telecommunications (DOT) was established in 1985 and it was the only provider of domestic and long distance services. In 1986, two wholly government owned companies, the Videsh Sanchar Nigam limited (VSNL) for international telecommunications and Mahanagar Telephone Nigam Limited (MTNL) for telecommunication service in some of the metropolitan areas formed but other rural and urban areas remained under regulation of DOT (Govt. of India, handbook of BSNL). Later on, major share of VSNL was purchased by TATA company.

Till 1990's which is also known as the pre-liberalization era, it was entirely government owned market of very small size. Due to lack of funds and competition in such market, call charges were very high or we can say that were never in the favour of a consumer. Public monopoly of telecommunication market was such a situation where the customer could not exert their preference (shanthi, 2006). Even there were wide gaps between the demand and supply of telephones. Such a government monopoly provided very poor service as there were very less direct exchange lines (DEL's) available in comparison to supply.

Year	DELs (Demand)	DELs (Supply)	Gap (Millions)
1985	3.74	2.90	0.84
1987	4.61	3.49	1.12
1989	5.59	4.17	1.42
1991	7.03	5.07	1.96

Table 1: DEL: Demand and Supply (Millions) Source: Indian Telecommunication statistic (2002)

2.2. Ministry of Communication, Government of India

Table 1 shows that the gap between demand and supply was growing in the pre-liberalization period indicating that government was unable to meet the growing demand of public for direct exchange lines. There was a long waiting list for getting a telephone connection which usually took minimum four to five years.

3. Section - II

3.1. Post – Liberalisation Scenario

In 1991, Dr. Manmohan Singh, the then finance minister of India under the Congress government headed by P.V. Narasimha Rao introduced the policy of liberalization in India. Many sectors stood to gain from this policy. Communication sector is also one of the major beneficiary of the liberalization, privatization and globalization (LPG) policy adopted by the government after severe economic crisis of 1991. This was the time when need was felt to introduce competition in the market with the entry of private players so that the huge demand of telephones could be met with quality services. The complete opening up of the telecommunication sector for private players was done when National Telecom Policy (NTP) 1994 was introduced which gave birth to cut throat competition in the telecommunication sector. With new NTP 1999, cellular services were launched. After the policy, many foreign companies also entered in Indian telecommunication market. In 2000, a corporation named Barat Sanchar Nigam Limited (BSNL) for providing telecommunication services in India except Delhi, Mumbai was created under government's control but it has to arrange its funds at its own.

These policies not only led to growth but are also maximizing consumer's benefits in the form of low tariffs and quick services. Since NTP 1999, telecommunication sector has been showing a persistently increasing trend in the total number of telephone subscribers over the years except few years. However, the growth is very sharp up to 2010. The telecommunication sector is witnessing an incredible growth after liberalization.

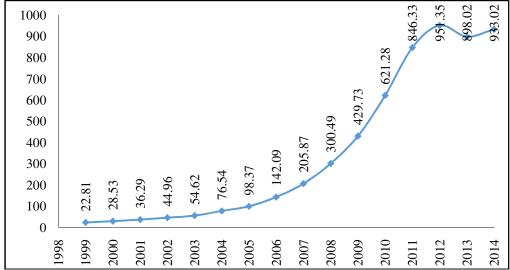
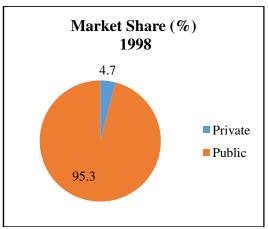


Figure 1: Growth of Telecommunication Network(in millions) Source:-various annual reports, DOT, government of India

No other sector of the economy has shown such a high rate of growth. "Communication is the fastest growing sector with India's economy. The average compound rate of growth of the sector works out to 24.02 percent per annum since the turn of this millennium" (Mani, 2008). From the meager number of 22.8 million telephone subscribers in 1999, the number has grown to 54.62 million in 2003, up to 300.49 million in 2008, 951.35 million in 2012 and reached to 933.02 million in 2014 as shown in the graph. This growth mainly owes to the entry of private and foreign players in telecommunication sector which has changed the way of communication of people. With liberalization, the share of public sector has declined from 95.3% in 1998 to 10.85 percent up to December 2014 as against it, the share of private players in total telephone connections has increased to 89.15 percent up to December, 2014 as against less than 5% in 1998.



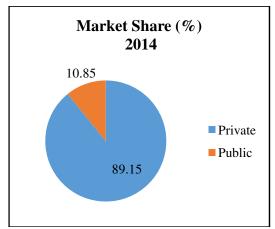


Figure 2: Public and Private Sector's market share in terms of subscriber's base

Private Sector: - 4.7% Private Sector: - 89.15%

Public Sector: - 95.3% Public Sector: - 10.85%

Source: - DOT Annual Reports

As a result of such policy changes the composition of telecommunication sector has been changing. The wireless services are taking place of wireline services. "Spectrum allocation mechanism for 3G mobile services" attributed growth of mobile services to certain factors. "Quick development, competition, advancement in technologies and reduced cost of access have propelled the growth of mobile services in India much like in other developing countries" (Prasad and Sridhar, June, 2007). The number of wireless subscribers are growing at a compound annual growth rate (CAGR) of 57.1% per annum since 2004 (annual report, DOT 20). The total share of wireless phones as percent of total phones in telecommunication sector has increased from 5.26 percent in 1999 to 92.91 percent in 2009 and 97.22 percent in 2014. Their number increased from 3.57 million in 2001 to 13.29 million in 2003, to 484.41 million in 2009 and has jumped to 944.01 million in 2014. The wireline telephones had also shown on increase from 32.70 million in 2001 to 41.42 million in 2005. But afterwards the trend reversed and the number started declining. A large number of wireline telephone connections (1.20 million) were disconnected in one year (from 2005-2006) and the number further declined to 40.22 million in 2006, to 37.25 million in 2009 and to 27.00 million in 2014. (Annual reports, DOT).

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fixed Line	40.23	40.77	39.41	37.97	36.96	34.73	32.17	30.21	28.50
Wireless	101.86	165.09	261.08	391.76	584.32	811.60	949.17	867.81	904.52
Gross total	142.09	205.87	300.49	429.73	621.28	846.33	951.35	898.02	933.02
Annual growth (%)(rounded off)	44%	45%	46%	43%	45%	36%	12%	-6%	4%

Table 2: Growth and Composition of Telephones over the Year in India (In Millions)
Source: - Department of Telecommunications
Various Annual Reports

Along with increasing trend of wireless phones, the post-liberalization era is dominated by the private sector. P.G Babu and Nibedita Das mentioning the reasons stated "in this world of rapidly evolving technology, the public firms fail to keep pace, as their decisions were often politicized and their responses to changing market and technology were sluggish (2000).

According to the data available, the share of private sector in total telephone connections has increased to 87.13 percent in 2014 as against 5 percent in 1999.

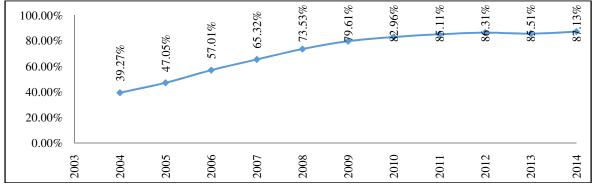


Figure 3: Growing share of private network (in percent)
Source: -Various Annual Reports, DOT

The percentage share of private sector in total telecommunication network has grown from 39.27 percent in 2004 to 79.16 percent in 2009 and it further increased to 87.13 percent in 2014 whereas in the same year public sector's share is 10.85 percent. Private sector is registering a growth mainly in wireless segment whereas its contribution to wireline is very low.

4. Section - III

4.1. Relation between Growth of Telecommunications Sector and Growth of GDP of India

The considerable growth of telecommunication sector and gross domestic product (GDP) growth rate are directly linked. India's population is growing very fast so people's demand for comforts and luxuries is also increasing. People want to value their every second. Telecommunication services are having the real worth to save a lot of time and travelling.

It is not only medium of communication in such an era of modernization rather it helps in providing many facilities like entertainment, information regarding market trends, mobile banking, inter and intra industry trade etc. to its customers. It seems that with the passage of time, it has become a necessity. It has become an indispensable part of all the three sectors of our economy whether it is agriculture, industry or service sector. Information received through mobile like weather reports and market prices, has begun to have an impact on productivity for the agricultural sector (Jayanta Banerjee, 2011). As far as industry is concerned, firms need to efficiently communicate with both input and output markets. Correct and swift information caters to optimal decision making orders can be better matched, delivery times be shortened and made more timely and costly inventory holidays be reduced (Anders Isaksson, 2009). So telecommunication services are needed by all the sectors of the economy for their fast growth and overall economic development of a nation. The annual percentage growth rate of subscriber's base in telecommunication sector and GDP at factor cost at constant prices are having strong and positive correction (+0.77).

5. Methodology

Let us consider Annual percentage growth of telecommunication network be X and GDP (Constant prices) be Y.

Year	Subscriber base (Telecommunication Network) – (Rounded off)	GDP at factor cost (Constant Prices) (Rounded Off)	Annual % Growth in Subscribe Base (Rounded off)	Annual % Growth in GDP at factor cost(Constant prices) (Rounded off)
1000	(in Millions)	(in Billions)		
1999	23	20878	-	-
2000	29	22549	26	8
2001	36	23485	24	4
2002	45	24750	25	5
2003	55	25709	22	4
2004	77	27757	40	8
2005	98	29715	27	7
2006	142	32531	45	9
2007	206	35644	45	10
2008	300	38966	46	9
2009	430	41587	43	7
2010	621	45161	44	9
2011	846	49185	36	9
2012	951	52475	12	7
2013	898	54821	-6	4
2014	933	57418	4	5

Source: - DOT Annual Reports,

www.rbi.org.in, Handbook of statistics on Indian economy.

It is clear from the table, that in the post liberalization era, with the increasing subscriber base, GDP is also increasing. From the year 2003 to 2004, when percentage increase in subscriber base is from 22 to 40 (near to double) percentage increase in GDP is also double. In 2013, with negative percentage growth of subscriber base, GDP falls. So telecommunication sector is also one of the key indicators of GDP annual growth. If there are fluctuations in telecommunication sector, it does have an impact on GDP annual growth. Telecommunication sector is contributing near about 3 percent to India's GDP (January, 2013, Department of Telecommunication).

6. Conclusion

The scenario of Indian telecommunication sector has entirely changed since new liberalization policy measures taken by the government. Before NTP 94 and NTP 99, to have a telephone connection was like a dream and more or less a symbol of riches but now it is so common that one cannot think a man without a mobile phone. Such kind of transformation witnesses the sharp growth of this sector. This sharp growth can be because of the changed composition of this sector i.e. from wireline to wireless, end of monopoly of government on this sector and entry of private players which introduced competition in the market. Inspite of all these changes, Indian telecommunication market is still having the large potential which is to be tapped. The need is to recognize the unused potential and to utilize it for those areas where there are subscribers available but quality services are lacking.

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