

## **TELECOMMUNICATIONS, INFORMATION and ECONOMIC DEVELOPMENT in INDIA**

Ms Farzana Gulzar\*

### **ABSTRACT**

*The paper deliberates on various indicators of development of telecommunication and information sector in India for socio economic development and makes projections for future.*

**Keywords:** Quality of Services; Telecommunications; Informtion and Economic development

### **INTRODUCTION**

The entire world is moving toward becoming a single market. The European community, ASEAN, Pacific Rim, SAPTA, NAFTA are all movements in this direction. The WTO, which has replaced the GATT, is also pushing for removal of tariffs and trade business, permitting increase in free movement of money, labour and goods/services across national boundaries. The increase in competitiveness that comes from this globalisation require an increasing emphasis on the quality of services.

More stress is being given to the service sector industries as characterized by perishability, intangibility, inseparability and variability, especially in developing countries like India which pays pivotal attention to service and information sector for its immense potential and challenges, thereby managing services sector to harvest maximum benefit for social and economic development.

### **LITERATUREREVIEW**

**Matto, Subramanian & Rathindran (2006)** found that countries with fully open telecommunication and financial sectors are able to attain economic growth

---

\* Lecturer, Department of Management Studies. The University of Kashmir, Sgr. 190006

rates upto 1.5 percentage points higher compared to other countries. **Dutta (2001)** analysed the relation between improvement in telecommunication infrastructure and increase in economic activity from thirty countries and found that for both industrialised and developing economies there exists a strong relationship between the two. **Wilson & Teske (1990)** stress the need of better understanding of telecommunication industry as it is becoming an increasingly important component of the U.S. economy.

**Saunders, Warford & Wellenius (1983)** describe the investment of developing countries in telecommunications services as inadequate and stress the need for large scale investment to attain better economic growth rate. **Jhunjunwala, Ramamurthi & Gonsalves (1998)** discuss the impact of new technologies on telecommunication sector in India. It is argued that application of new technology will bring down the investment cost considerably in telecommunication sector. According to **Petrazzini & Krishnaswamy (1998)** the high component of competition and increased private participation in Indian telecommunications sector will trigger unique socio economic effects. **Petrazzini (1996)** attributes the New Telecommunications Policy of 1994 for slow pace of India's telecommunication reforms as it has several features that discourage private participation in the field. **Dokeniya (1999)** advocates the creation of a regulatory mechanism in India that will ensure prospective private investors a reasonable return on their investment and a governance mechanism that insures them against the possibility of arbitrary governmental discretion.

### TELECOM INDUSTRY

The telecommunication infrastructure and ultimately information is the magic mantra for the rapid economic and social development of the country provided it is managed in a efficient and effective manner. It is predicted that the telecommunication sector will be a major contributor to the GDP of the country. This is recognised by the Government of India (GOI) which has formulated a comprehensive and forward looking telecommunications policy for development of this industry. (**National Telecom Policy, 1999**)

**NATIONAL TELECOM POLICY[NTP] - 1999**

In 1994, GOI announced NTP which defined certain important objectives ensuring India's emergence as major manufacturing/export base of telecom equipment and universal availability of basic telecom services to all villages. NTP (1994) also recognised role of that private sector in the indu. Hence the Government invited private sector participation in a phased manner from the early nineties, initially for value added services such as paging services & Cellular Mobile Telephone Services (CMTS) and thereafter for Fixed Telephone Services (FTS). Licences were awarded through competitive bidding process to 8 CMTS Operators in the 4 metros, 14 CMTS Operators in 18 state circles, 6 FTS Operators in 6 state circles and to paging Operators in 27 cities and 18 State Circles (**New Telecom Policy, 1999**). Very Small Aperture Terminal (VSAT) services were liberalised for providing data services, besides internet service provision (ISP) by Private Operators and Global Personal Communications by satellite (GMPCS)

The new policy framework in 1999 focussed on creating an environment which enables continued attraction of investment in the sector with the objective of providing affordable and effective communication for all citizens. It is being achieved through the following initiatives:

- a) Revenue share license replacing the fixed license regime. This ushered in the beginning of the cellular revolution; almost 2 million lines are getting added to the network every month.
- b) Cellular Mobile Service Providers (CMSP) being permitted to carry its long distance traffic within their service area without seeking an additional license. This liberation of the National and International long distance sector by the government led to the setting up of private companies in both service segments and the consequent competition led to the revolution in tariffs.
- c) In 2003 December, the Government announced "Unified Access License" allowing all service providers to provide access using any type of network equipment including service packet switches in a specified service area.
- d) GOI came out with a interconnection Usage Charge (IUC) regime in January 2003 to facilitate cost oriented interconnection in the Indian Telecom sector with both private and public Operators having multiple service offering

- e) Finally in January 2004, the Government exempted parts of telecom and specified infrastructure equipment for basic, cellular, internet, VSAT, radio paging and public radio trunk services from basic customs duty. Besides, the Government also announced reduction in performance guarantees for internet service providers, national long distance providers and domestic call centres with an objective of making affordable pricing practical.

### TELECOMMUNICATION & ECONOMIC DEVELOPMENT

For 3<sup>rd</sup> successive year, the Indian economy has registered a highly impressive growth during fiscal year 2005-06 and impressive performances of the services sector have added greater momentum to this growth process. Although in the third quarter (October – December 2005-06) real Gross Domestic Product (GDP) has registered a slow down but in the fourth quarter (January – March 2005-06) there was a sharp increase benefiting from a pickup in almost all segments including services. According to the estimates released by Central Statistical Organisation (CSO) in May 2006 real GDP accelerated from 7.5 percent in 2004-05 to 8.4 percent during 2005-06. The Indian economy recorded an average growth of over 8 percent in the latest three years (2003-04 to 2005-06)

**Table 1: Growth Rates of Real GDP (Base Year: 1999 - 2000)**

Sector	2000-01 to 2002-03 (Average)	2003-04	2004-05	2005-06	2004-05				2005-06			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Agriculture	-0.2	10	0.7	3.9	3.5	-0.2	-1.2	1.5	3.4	4	2.9	5.5
	23.5	22.2	20.8	19.9								
Industry	5.2	6.6	7.4	7.6	6.6	8	8.1	6.8	9.5	6.3	7	7.9
	19.7	19.5	19.5	19.3								
Services	6.6	8.5	10.2	10.3	10	8.2	10.6	11.6	10.1	10.3	9.7	11
	56.8	58.3	59.7	60.7								
Trades, Hotels, restaurants, Transport & Communica tion	8.5	12	9.7	11	10.2	12.9	10.6	11.5	10.6	11.2	11.7	11

Source: Reserve Bank of India Report, Macroeconomic & Monetary Developments: First Quarter Review 2006-07.

### Services

Service sector with double digit growth during the past two fiscal years (2004-05 & 2005-06) has strengthened its place as the “Leading Sector” of the Indian economy. Services Sector now accounts for more than 60 percent of overall GDP. Lead Indicators of service performance for April – May 2006 suggest continued buoyancy. Revenue earning rise due to sharp rise in new telecom connections is expected to boost the economy.

**Table 2: Indicators of Service Sector Activity (Growth Rate in Percent)**

Sub Sector	2004-05	2005-06	April	
			2005	2006
Tourist Arrivals	23.7	11.7	19.7	20.0
Commercial vehicle production	28.6	10.6	-5.3	49.7
Railway revenue earning & freight Traffic	8.1	10.7	14.9	167.0
New Cell Phone connections	10.4	89.4	7.6	167.0
Cargo handled at Major Ports	11.3	10.3	15.8	-2.0

Source: Reserve Bank of India Report, Macroeconomic & Monetary Developments: First Quarter Review 2006-07

Various business confidence surveys suggest that economic activity is likely to remain buoyant in real terms. Country’s Central Banking authorities feel that the buoyancy in service sector activities suggest that the recent growth momentum in the Indian economy is likely to be maintained in 2006-07.

**Table3: Projections of Real Gross Domestic Product for India by Various agencies 2006-07**

Agency	Growth projections for 2006-07 (Percent)				Month of Projections
	Overall Growth	Agriculture	Industry	Services	
<b>ADB</b>	7.6	-	-	-	Apr-06
<b>CDE-DSE</b>	7.7	2.4	9.5	9.2	May-06
<b>CIT</b>	Around 8.0	-	-	-	Jun-06
<b>CMIE</b>	7.9	2.5	8.5	9.6	Jun-06
<b>ESCAP</b>	7.9	-	-	-	Mar-06
<b>ICRA</b>	7.4-8.2	2	8.2-9.7	9.1-9.7	Jan-06
<b>IMF</b>	7.3	-	-	-	Apr-06
<b>Planning Commission</b>	7.7	3.2	8.9	8.8	Dec-06
<b>Reserve Bank of India*</b>	7.5-8.0	-	-	-	Apr-06
- : Not available					
* Base year 2001-02, Mid year review of the tenth five year plan					
ADB : Asian Development Bank					
CDE-DSE: Centre for Development Economics- Delhi School of Economics					
CII: Confederation of Indian Industry					
CMIE: Centre for Monitoring Indian Economy					
ESCAP: Economic and Social Commission for Asia and the Pacific					
ICRA: Investment Information and Credit Rating Agency of India					
IMF : International Monetary Fund					

Source: Reserve Bank of India Report, Macroeconomic & Monetary Developments: First Quarter Review 2006-07

## OPPORTUNITIES

The Indian telecom market has sustained high growth rates. It offers an unprecedented opportunity because of high economic growth and consequent rising income levels. A combination of factors is driving growth in the telecom

sector, promising rich returns on investments. According to NASSCOM – Mckinsey Co Study, “ By 2008, the Indian IT software and services sector will account for US\$ 70 -80 billion in revenues, employ 4 million people and account for 7 percent of India’s GDP and 30 percent of India’s foreign exchange inflows”. **(Department of Telecommunications, 2003)**. The other important opportunities are:

### **Demographic Impetus**

Working age population of India is set to increase to 882 million by 2020 as per the population projections from planning commission of India. Besides urban population is expected to rise from 28 to 40 percent of the total population by 2020. This profile of concentrated urban population will facilitate customised telecom offering. Over the years spending power is increasing in India. 30-40 Million people are joining the middle class every year with consumption spending associated with rising incomes. So representing a huge demand for mobile phones, cars, credit cards etc. **(Gupta, 2002)**

### **Foreign Direct Investment (FDI) Policy**

The present policy for the telecom sector includes

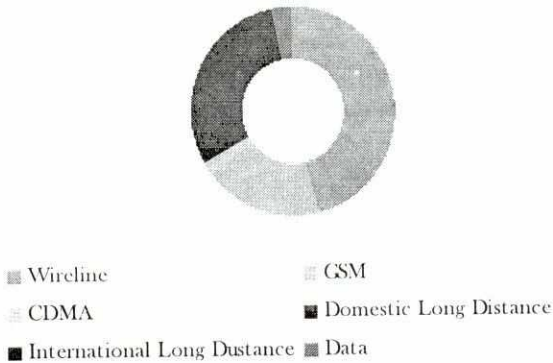
- FDI is limited to 49 percent in basic cellular mobile, long distance international, Long distance national, value added services and GMPC by satellite.
- FDI upto 74 percent permitted for internet service, infrastructure and paging service
- FDI upto 100 percent for ISPS not providing gateways, infrastructure providing fibre, electronic mail, voice mail etc

### **Market**

India has the eight largest telecom network in the World, which is growing at an overall rate of 20 percent. As of May 2004, India has about 43 million fixed lines & 36 million wireless subscribers contributing to the total tele-density of about 7 percent.

According to Morgan Stanley (December 2003) the total revenue from the Indian telecom market in financial year 2003 was estimated to be about US\$ 9.2 Billion. (Department of Telecommunications, 2003).

**Fig 1 Contribution to Telecom Service Revenue, Fiscal Year 2003**



**Source: TRAI Indian Telecom Service Performance Indicators, November 2003.**

**Table 4 GSM Service Providers**

	Players	% Market Share
1	Bharti	26.1
2	BSNL	19.7
3	Hutch	19.8
4	Idea	14.1
5	BPL	7.4
6	Spice	4.5
7	Aircel	4.0
8	Reliance	3.0
9	MTNL	1.4

Source: Cellular operator association of India, May 2007



## INFORMATION INDUSRY

Information is an intangible good communicated to be understood. The information cycle reveals that producer of information or knowledge products goes through different stages till it is received by user or consumer. Telecommunication industry assumes central role in the modern society to manage the cycle or industry of information. Susan Artandi rightly asserts "we live in an information rich world in which information is bought, sold, tested, exchanged and consumed in economic terms". This makes a strong case for powerful telecommunication industry growth for development of information industry.

## CHALLENGES AND TRENDS

Taking into consideration the demographic impetus, recent developments and the NTP, the following challenges can be envisaged.

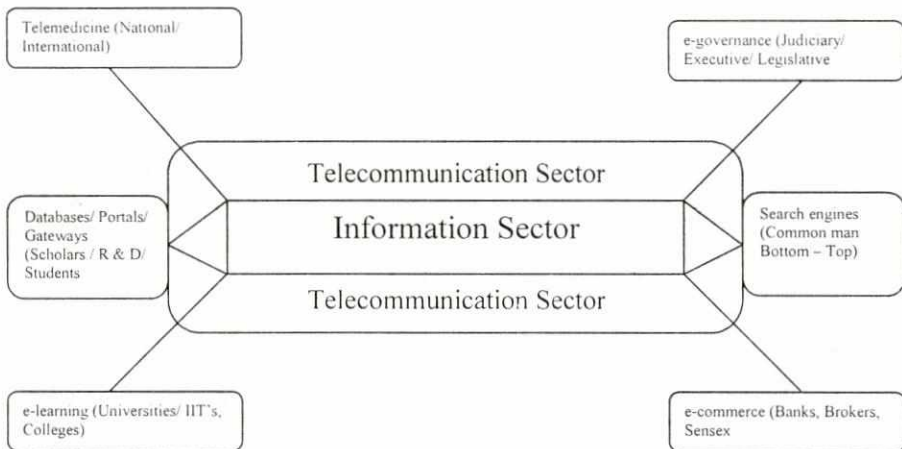
- Rural Infrastructure for Mobile telephone services still needs to be developed to achieve adequate penetration
- Infrastructure for Value Added Services such as Internet in rural areas needs to be developed for areas of e-learning, tele-medicine for success
- The Indian telecom market liberated in the 1990's and the service licenses given on the basis of services to be offered in specified areas of operation, helped Indian telecom market today characterised by the existence of various regional players in the fixed line and cellular segments. In this regard, Neil Galloway – Head of Asian Telecom, ABN AMRO Bank (2003) quotes "The elephant is on the dance floor.....& the Band is playing a mobile tune.....Get on the dance floor with the Indian elephant. (**Department of Telecommunications, 2003**).

Thus, huge potential and opportunities is an attractive aspect of the telecom sector – the budding sector can help to harvest great results if managed effectively and efficiently for investors, consumers and above all to the economy of the country.

- The telecommunication sector is a back bone for information transfer, dissemination and interaction. The information society will survive on "Information" through different channels like medicine, education,

business and governance. This makes all sectors transparent, expeditions ,ubiquitous and accessible at 24X7 basis. Thus development of telecommunication sector will not at as a driver for economic development but will help to build knowledge and information base for achieving ultimate goal of socio economic development essential for global information society. The opportunities of information sector are drawn in figure 2.

**Fig.2 Opportunities for Information Sector**



## CONCLUSION

One billion population of India to be part and parcel of the globe in overriding all physical boundaries have to evolve express ways to attract foreign investment for development of infrastructure for providing value added services. This sector is becoming a sin- qua- non for socio-economic development by facilitating knowledge transfer and bridging all divides in information diverse society.

Besides economic development, it ultimately enables common man to harvest all necessities and luxuries in a transparent, ubiquitous, economic and democratic way.

## REFERENCES

- Artandi, Susan. (1979). Man, Information and Society: new patterns of Interactions. JASIS, p 16-17.
- Department of Information Technology. (1999). National Telecom Policy. Department of Telecommunication, Delhi.
- Department of Telecommunications.(2003). Telecommunications: Telecom in India. New Delhi: Department of Telecommunications Ministry of Communications. Retrieved December 24, 2006 from [http://www.arc.unisg.ch/org/arc/web.nsf/1176ad62df2ddb13c12568f000482b94/43cf0caeed566faac12571d30061daac/\\$FILE/India%20Symposium\\_IBEF\\_Sectoral%20Reports\\_Telecommunications.pdf](http://www.arc.unisg.ch/org/arc/web.nsf/1176ad62df2ddb13c12568f000482b94/43cf0caeed566faac12571d30061daac/$FILE/India%20Symposium_IBEF_Sectoral%20Reports_Telecommunications.pdf).
- Dokeniya, A. (1999).Re-forming the state: telecom liberalization in India.Telecommunications Policy, 23(2). Retrieved February 21, 2008, from <http://www.ingentaconnect.com/content/els/03085961/1999/00000023/00000002/art00082>
- Dutta, A. (2001).Telecommunications and Economic Activity: An Analysis of Granger Causality.Journal of Management Information Systems,17(4). Retrieved February 19, 2008, from <http://mesharpe.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue,4,10;journal,28,31;linkingpublicationresults,1:106046,1>
- Gupta, S.P. (2002). Report on the committee on India vision 2020. New Delhi:Planning Commission.Govt.of India.Retrieved December 23, 2006 from [http://planningcommission.nic.in/plans/planrel/pl\\_vsn2020.pdf](http://planningcommission.nic.in/plans/planrel/pl_vsn2020.pdf).
- Jhunjhunwala, A., Ramamurthi,B., & Gonsalves, T. A.(1998). The role of technology in telecom expansion in India.Communications Magazine, IEE, 36(11). Retrieved February 20, 2007, from [http://ieeexplore.ieee.org/xpl/freeabs\\_all.jsp?arnumber=733480](http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=733480)
- Mattoo, A., Subramanian, A., & Rathindran, R. (2006).Measuring Services Trade

- Liberalization and Its Impact on Economic Growth: An Illustration. *Journal of Economic Integration*, 21(1). Retrieved February 21, 2007, from <http://sejong.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue,4,10;journal,8,43;linkingpublicationresults,1:109474,1>
- NASSCOM.(2006). Retrieved December 29, 2006 from <http://www.nasscom.in/Default.aspx?>
- New Telecom Policy. (1999). Retrieved December 10, 2006 from <http://dot.gov.in/ntp/ntp1999.htm>
- Petrazzini, B. A. (1996).Telecommunications policy in India: the political underpinnings of reform. *Telecommunications Policy*, 20(1). Retrieved February 21, 2008, from <http://www.ingentaconnect.com/content/els/03085961/1996/00000020/00000001/art00046>
- Petrazzini, B. A., & Krishnaswamy, G. (1998).Socioeconomic Implications of Telecommunications Liberalization: India in the International Context. *The Information Society*, 14(1). retrieved February 20, 2008, from<http://www.ingentaconnect.com/content/routledg/utis/1998/00000014/00000001/art00002>
- Saunders, R. J., Warford, J. J., & Wellenius, B. (1983).Telecommunications and economic development. Retrieved February 19, 2008, from <http://mdl.csa.com/partners/viewrecord.php?requester=gs&collection=TRD&recid=0517586CI&recid=0517586EA&q=&uid=790900575&setcookie=yesUSA>
- Wilson, R. H. (1990).Telecommunications and Economic Development: The State and Local Role. *Economic Development Quarterly*, 4(2). Retrieved February 20, 2008, from <http://edq.sagepub.com/cgi/content/abstract/4/2/158>