

Recent Developments in Information Technology in India

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The handling of information with the help of modern electronic based technology spearheaded by the computer may be termed as Information Technology, IT in short. This term was coined in the late 1970s. It incorporates the whole of computing and telecommunication technology, together with major parts of consumer electronics and broadcasting.

From a nascent start, India has made rapid progress in the IT domain. The opening of the economy in the early 1990s gave it a tremendous boost. India's prowess in the software field is now recognized the world over, with its software consultancy firms having a truly global presence and with nearly all the top Fortune 500 Companies as its clients. The existence of a separate Department of Information Technology under the Central Government is a reminder to the importance attached to IT and the impact it is having on various fronts including governance. Information Technology has come to be recognized as a key-leveraging factor in the National Development. It has had a profound effect on other industries in increasing productivity and changing cost structure.

The Indian IT success story has also highlighted India's attractiveness as an investment destination far beyond the IT sector. Another key impact of the global sourcing model popularised by the growth of IT and IT Enabled Services (ITES) has been the reversal of the brain drain – as people of Indian origin (who went to pursue careers abroad), as well as young expatriates, are now attracted to work in India. The rapid growth of ITES-BPO and the IT industry as a whole has made a deep impact on the socioeconomic dynamics of the country, having a significant multiplier effect on the Indian economy. Apart from the direct impact on national income, the sector has risen to become the biggest employment generator with the number of jobs added almost doubling each year, has spawned a number of ancillary businesses such as transportation, real estate and catering; played a key role in the rise in direct-tax collection and has contributed to a rising class of young consumers with high disposable incomes. The industry's contribution to the national economic output is estimated to account for 4.1 per cent of the national GDP in the year 2004-05. The IT services and software sector is expected to add 109,000 jobs in the current fiscal, ITES-BPO another 94,500. The number of professionals employed in India by the IT and ITES sector is estimated at 1,045, 000 by March, 2005. Of these, 345,000 were in the IT software and services export industry; nearly 348,000 were in the ITES-BPO sector; 30,000 in the domestic software market and over 322,000 in user organizations.

The Indian software and services export was to the tune of Rs. 78,230 crore (US\$ 17.2 billion) in 2004-05, as compared to Rs. 58,240 crore (US \$12.8 billion) in 2003-04, an increase of 34 per cent both in rupee terms and dollar terms. The Indian ITES-BPO (Business Process Outsourcing) sector industry also continues to grow from strength to strength, witnessing high levels of activity – both onshore as well as offshore. Export revenues from ITES-BPO exports from India have exceeded the US \$ 5 billion mark in the year 2004-05.

Unprecedented growth of telecom subscribers have occurred during the last few years. As many as 22.18 million subscribers were added during the year 2004. India's current *tele-density* is expected to have crossed 9 per 100 persons by now with the total number of connections currently standing at well over a 100 million. An interesting observation is that wireless phones have overtaken fixed line connections. Further, the consumer electronics sector is estimated to have achieved a production level of Rs. 16,800 crore during 2004-05.

The change in the broadcasting scenario has been nothing sort of astounding with no less than a hundred broadcasters in the field competing with each other. Radio has made a big comeback with the launch of FM channels. Direct to Home (DTH) broadcast service in Ku-Band through satellite has been started by the National Broadcaster, in addition to one private DTH service provider. Good quality digital broadcast reception is available almost everywhere in the country to the citizens, on their television sets through the use of small dish antenna and a Set Top Box (STB). Besides bridging the *entertainment divide*, it has opened up an opportunity for manufacturing of set top boxes (STB) on a large scale.

The Government has recognized the potential of Information and Communication Technology (ICT) for rapid and all round development in general and transforming governance in particular. Plans are afoot to promote e-Governance on a massive scale and a National e-Governance Plan has been drawn which seeks to implement 25 Mission Mode Projects for the present at the Centre, State and integrated service levels so as to create a citizen-centric and business-centric environment for governance, create the right governance and institutional mechanisms, set up core infrastructure, formulate key policies and channelise private sector technical and financial resources into the national e-Governance efforts.

To ensure availability of trained manpower, spread of IT education has been given the necessary impetus both at the government and private level. Significant is the opening of Indian Institutes of Information Technology (IIITs) on the lines of Indian Institutes of Technology (IITs). Besides these, various certification courses like the highly popular DOEACC courses have been started. The National Association of Software and Service Companies (NASSCOM) have played a key role in the popularization of IT in India.

The North East states did take time to join the IT revolution but are now trying to catch up with a slew of measures including having comprehensive state IT policies. The Central Government is providing a lot of assistance in this regard – an example being the opening of Community Information Centres (CICs) at the block level throughout the north-east. CICs are a citizen interface for IT enabled e-Government services and training. The CICs provide e-mail, Internet access, citizen-centric services through the CIC portal and web-based services such as agri-market information, hospital bookings, election results and board examination results. Training to the local community on the fundamentals of using computers, conducting tele-consultation sessions, dissemination of information related to employment opportunities, data entries for Below Poverty Line (BPL) census, and other awareness and entertainment programmes are the regular features of the CICs in the region.

With the rapid penetration of Internet and mobile communication technologies, a host of problems have cropped up including cyber crime, easy access to pornography, rampant piracy, invasion of privacy and a massive threat to intellectual property. This has also created a lot of social and ethical problems, which society has to address in a decisive manner. To tackle the problem of cyber crimes, the Information Technology Act 2000 has been passed, which was a landmark event. The IT Act 2000 provides the legal framework for establishing trust in the electronic environment in the country. To keep pace with the times, more teeth is being added to it through major amendments.

We are now in an era of what is termed as *convergence*. Today, technologies do not exist or work in isolation but in tandem. It is now foolish to talk about IT as a separate identity, as it is helping other branches to flourish and in turn it is being helped by them to prosper. The most significant development in the coming years would be the convergence of IT, Biotechnology and Nanotechnology to propel India into the big league. As a conclusion, it can be said that India is now an integral part

of the *Global Village*, thanks to the developments witnessed in Information Technology.

Reference:

1. *Annual Report 2004-05*, Department of Information Technology, Ministry of Communications and Information Technology, Government of India