ICT, the Key to Growth in India: Myth or Reality

(Dr. Pawan Kumar)

Assistant Professor, Economics Ramjas College, University of Delhi, Delhi-110007

I. Introduction

Today India is fast approaching to become the fifth largest economy in the world after the US, Japan, China and Germany. A close examination of data shows that ICT (Information and Communications Technologies) has been playing an important and instrumental role in it. Its contribution in total GDP has increased steeply from 3.2 per cent in 2004-05 to 9 percent in 2015-16. Despite the severe recession in 2009, Indian Information Technology- Business Process Outsourcing (IT-BPO) industry was able to sustain its trend of high growth rate. For instance, in 2015-16, the aggregate revenue of IT-BPO industry grew by over 11.8 per cent reaching to US \$ 112.6 billion. Similarly, with a 11.2 percent growth rate, software and services exports (including ITES-BPO exports) increased significantly.

Besides this, the ICT industry in India has been the main source of the emergence of a large number of first generation entrepreneurs, in the form of new start up. This eventually is creating an immense employment opportunities for all endowed with diverse skill formation. Other sectors which are immensely helping includes: transportation, real estate and catering. It has helped in creating a rising class of young consumers with high disposable incomes, and thereby contributing in the rise of direct-tax revenue.

Further, with a double digit growth rate, direct employment in the IT software and services sector has grown many folds in the last decade. For instance, as per NASSCOM (2011), the IT-BPO has generated nearly 2.8 million direct jobs opportunities in 2010 in India. This has increased exponentially in 2015-16; giving proportional rise in indirect employment generation to the tune of about 15 million or so. Another important feature is that the industry is on the front runner in terms of diverse workplace (i.e. close to 30 per cent of employees are women.

Given this, the paper is structured as follows. It begins with growth trends of ICT sector and its pattern followed by the factors attributing to this, with a special reference demand side factors. It further talks about the direct and indirect employment opportunities associated with the sector. Thereafter, a review of supporting government policy is provided. And finally, the vision of further development of the ICT and what are the likely challenges to accomplish these targets is elaborated.

1: Underlying Factors of the ICT Growth in India

India is ranked 138th out of 175 countries in the 2016 ICT Development Index (IDI), according to a report published by the International Telecommunication Union (ITU). There is a long way to go. The countries South Korea, Iceland, Denmark, Switzerland and United Kingdom (UK) top the list.

According to a Report by Gartner, Hype Cycle for ICT in India, 2016, ICT as new technology is playing an important role in India. The report shows that more local vendors are entering both emerging and mature technology segments in India, including areas such as internet of thing (IOT) and AI (Artificial Intelligence), etc.

Further as far as the size of the ICT sector in India is concerned, it is recorded to have gone up from 3.4percent of total GDP in 2000-01 to 7.1 percent in 2010-11, and is estimated to be around 8.5 percent in 2015-16. Majority of the ICT production (94 percent) is from the services sectors in the form of IT-ITES, and the remaining (6 percent) from manufacturing sector. Further, it is recorded that in total organized manufacturing sector GDP, the share of ICT manufacturing sector has remained nearly constant around 2 percent since 2000-01; whereas the organized ICT services sector's share in total organized services sector has increased significantly to 10percent in 2007-08 from 6 percent in 2000-01.

According to the Ministry of Information Technology (MIT), the hardware production in India constituted around 1.5percent of global electronics production in 2008-09. The other component of ICT, the computer software industry, which was worth Rs. 744.9 billion in 2003-04 increased to Rs. 2735.3 billion in 2008- 09. It is worth noting that the growth of ICT sector in India is largely export driven. For instance, it has risen from \$17.7 billion in 2004-05 to an estimated \$69 billion in 2011-12 (NASSCOM, 2012).

The Indian economy is shaping good with the government initiatives such as 'Make in India' and 'Digital India,' are proving positive measures in steering and driving investment sentiments in the country. Another important element is the foreign investment component in ICT in India, which is recorded to be of the tune of \$5.9 billion during the period from April 2015 to March 2016. This is an increase of nearly 150 percent compared with the same period last year.

As far as the composition of ICT production is concerned, as recorded in Table 2, consumer electronic, industrial electronic, computers, all have recorded big jump in production, which became doubled in 2008 over 2003 in all components. In other words, the total electronic production has gone up from Rs. 42,700 Crore in 2003 to 92,130 Crore in 2008. Similarly, the production of software, both for domestic market and export, has also gone up significantly from Rs. 70,500 Crore to Rs. 2,58,000 Crore. The total IT production has trebled in 2008 since 2003.

1.1: Telecommunication and Internet:

The *telecommunication*, an important component of the ICT sector, has greatly helped in the rapid growth rate of ICT sector in India. The International Telecommunication Union has ranked India, the second largest mobile market in the world after China, at 116 in its ICT Development Index for 2010. As shown in Table 3, during 2007 to 2011, the total number of wire line or basic phones increased from 41 million to 66 million and the wireless or mobile phones from 154 million to 583 million respectively. As far as the regional distribution is concerned, as per NASSCOM (Annual Report 2016) share of rural telephones in total telephones steadily increased from around 16 per cent in 2004 to 28.9 per cent in November 2015. In the ranking of average per minute cost of different mobile cellular call, India stand at fourth place after Hong King, Sri Lanka and Pakistan (World Economic Forum, 2016)

Consequently, the tele-density, an important indicator of telecom development, rose from 7.02 per cent in March 2004 to 76.86 per cent in 2011. In rural area it increased from 1.57 per cent to 37.48 per cent and from 20.74 per cent to 167.85 per cent respectively in urban areas (Economic Surrey, 2015-16). This reflects about huge growth potential for the sector in the rural area. The factors behind this includes supporting government policies, increasing foreign investment and intense competition in the telecommunications that led the price index fallen from 100 in 2004-05 to 65.08 in 2014-15 (NASSCOM, 2015). However, as compared to the developed countries there is a long way to go.

Like telephones, *internet* growth has been on the rise. For instance, the number of internet subscribers has increased rapidly from 0.18 million in 2005 to 32.12 million 2015. This led internet density (number of internet per 100 people) rising exponentially high from 15.1 percent in 2013 to 39 percent in 2016. This is expected to rise to 50 percent in 2022.

The internet penetration in rural areas has seen an all-time high in 2011. In a survey conducted by Internet and Mobile Association of India (IAMAI), the total number of *active internet users* in rural area has risen by 98 per cent to touch 24 million by the end of 2011 from 12.1 million in December 2010. The survey said that the *claimed internet user* category is set to grow by 96 per cent to reach 29.9 million by December 2011 from 15.2 million in December 2010.

A further analysis of the growth trends shows that the private sector has played a crucial role in the telephones and internet growths in India. For instance, its share total production of telephones and internet increased to 84.5 per cent in 2010 from a meager 5 per cent in 1999 (Economic Survey, 2011). Since the introduction of Broadband Policy, 2004, a host of measures have been initiated to further promote and develop the broadband penetration in the country.

1.2: IT and ITES

It is only due to the IT and ITES that India gained a brand identity as a *knowledge economy* world over. It has four major components: IT services, business process outsourcing (BPO), engineering services and R&D, and software. IT-ITES sector has become a growth engine for the economy a whole, contributing substantially to the increase in total GDP, total employment, and total exports. The industry has also helped to expand the tertiary education significantly. *The top seven States in India that account for about 90 per cent of total sector's exports have started six to seven times more colleges than the other States.* The Indian IT-ITES industry has registered robust growth since 2004-05.

In the last couple of years, high analytical and value-added work has been a focus area for most ITES-BPO companies. Share of knowledge process outsourcing (KPO) services such as market/business research and analytics increased from 10 percent in 2007 to 15 percent in 2009 (Planning Commission, 2011). It is also seen that services like CAD/CAM designing, engineering process outsourcing (EPO) services rose from 1.0 percent in 2007 to 2.0 percent in 2009. Further, the share of legal process outsourcing (LPO) and e-learning services has increased by 4.0 percent and 6.0 percent respectively in 2007, to 5.0 percent and 6.7 percent in 2009. As far as the regional distribution of IT and ITES companies is concerned, NASSCOM Report (2010) shows that in 2009, 14.6 percent of the companies were having operations in Bengaluru compared to 14.0 percent in 2008. Chennai, on the other hand, was the next most preferred destination with 13.1 percent share in 2009. The top five centers where companies had their offices/delivery centers were Bengaluru, Chennai, Mumbai, Pune and Hyderabad. Another noteworthy revelation of the study was that Gurgaon, which ranked fifth in terms of offices of companies in our 2008 survey, slipped to the eighth rank in 2009. Tier II cities such as Noida, Ahmedabad, Kochi and Mangaluru remained at the same rank as in 2008 and occupied the ninth, tenth, eleventh, twelfth and thirteenth positions, respectively. The development of tier II and tier III cities as future delivery centres is likely to boost the cost competitiveness of ICT companies.

II. Reasons for the High ICT Growth in India

The above analysis give rise to a pertinent question: what are the factors that led to such an impressive rise in growth rate recorded by the ICT sector in India? There are a host of factors which directly or indirectly helped the sector attain higher growth trajectory not only in output but also in employment. These can broadly be categorized as supply side and demand side factors. The former mainly includes lower wages, huge base of English speaking manpower, favorable business and regulatory environment and effective telecommunication network, among many others. The latter which includes domestic and export, is elaborated below.

2.1: Domestic Demand

As evident from Table 4, overall size of domestic demand, comprising hardware, software and services (IT-BPO) recorded \$ 11.7 billions in 2007-08 increased to \$19 billions in 2011-12. Banking, financial, services and insurance (BFSI), manufacturing, railways, telecom, and government are the key vertical markets driving growth in domestic IT spending across categories which include hardware systems, networking, storage, security, enterprise application products and related services.

As per Economic Survey (2011-12), domestic demand has been shifting from hardware towards a solutions-oriented approach, with a growing emphasis on services. In the beginning of last decade, software firms were mostly software solution providers. Manufacturing of packaged products with high value-added along with sustained improvement in quality, high investment in manpower and a competitive R&D environment helped them gradually move up the value chain both in the domestic and export sectors.

Further, an increasing number of Indian brands such as Infovision, HTMT Global Solutions and Bharti Airtel are investing in quality customer care and gradually adopting global practices in enhancing domestic market size. Increasing competition and growing emphasis on customer satisfaction is also driving public sector organizations towards BPO. For example, Air India outsourced its domestic customer service operations to third-party providers and Indian Railways announced its plans to establish Railway Enquiry Franchisees across the country. The success of these early initiatives by the public sector is of critical importance to the domestic BPO sector.

As per the OECD Report (2008), the Indian hardware segment mostly caters to the domestic market. It accounted nearly 49percent of total domestic IT-BPO spending in 2006. Personal computers, notebooks and servers are the leading hardware spending items in India. Most multinationals companies have established plants in India. India competes with China as a hub for original equipment manufacturers (OEMs). Over the years various policy initiatives have been introduced to improve the investment climate and to remove other constraints in hardware exports in the 11th Plan.

2.2: External Market:

According to the latest Economic Survey (2015-16), ICT accounts for nearly 67 percent of the total export of services in the country, growing at an exponential pace. It shows the growing importance of Indian firms in the world markets. Firms are expanding in terms of scale and coverage for across the globe. In the last couple of years creasing competition has forced firms to deliver world class products and quality services. As shown in Table 4, a major chunk (75percent) of the total IT-BPO revenue \$ 87.6 billion in 2011-12 is contributed by export which has grown significantly over the years. It increased at an average growth rate of 14.2 percent during the 11th Plan Period, and at a 12.3 percent in 2015-16.

As per OECD (2016), in the last decade India has been the leading source for offshore service supply, which is estimated to account for 65percent of the global industry in offshore IT and 46percent of the global BPO industry. This includes finance and accounting (F&A) services, customer interaction services, human resource administration (HRA) and a wide range of other specific services. The Indian BPO firms include InfoTech, Mindtree Consulting, NIIT Smart Serve, Perot Systems, Hewitt Associates, and Infinite Computer Solutions. MNCs are setting up third party captive units for data analysis and data modeling (NASSCOM, 2011). Call centres, insurance claims processing, legal databases, digital content development,

online education, medical transcription, data digitisation, payroll/HR services and web services are other products where India has started specialising in the world market.

Further, export of electronics hardware also increased rapidly but not as fast as imports (OECD, 2016). Celetronix, Hewlett Packard India, Samsung, VXL Instrument, Bacro Electronic, L.G. Electronics, Zenith Computers, and WEP Peripherals are amongst the top exporters. With a very high growth of 118 percent (121 percent in \$ terms), uninterrupted power supply (UPS) has emerged as the top export item. Colour television, which was in fifth position in 2004-05 registered high growth of 101percent (104percent in \$ terms) moving to fourth position in the last couple of years. The other major export items include CD-recordable, memory cards, picture tubes, DVDs, medical instruments, connectors and clocks/watches. Computer software and services contributed 91.6 percent of total ICT exports; the other 8.4 percent is from the electronics and hardware segment.

III. Employment in ICT

Overall employment scenario in the country has gone up significantly. In the last couple of years, ICT sector is increasingly becoming an important source of employment generation in the country, both directly and indirectly through various ICT using sectors. According to the Labour Bureau, employment in the country rose by 125 thousand. Among others, the sectors those contributed significantly includes: IT/BPOs sector, textiles including apparels and metals. Employment, however, declined in gems & jewellery sector, handloom/power loom sector, leather, automobiles sectors and transport sector during the same period (Economic Survey, 2015-16). For instance, as per one of the estimates of NASSCOM (2011), in 2011-12 the BPO/ITES is set to generate 2.8 million direct jobs opportunities and 8.9 million indirect. As evident in Table 5, the former has gone up from 0.8 million in 2004 and 1.6 million in 2007. The jobs have been generated in diverse fields such as commercial and residential real estate, retail, hospitality, transportation, and security. India continues to be the dominant player in the global outsourcing sector.

India has a very large pool of labour, with nearly 60 percent of its population between the ages of 15-59, and more than 50 percent below the age of 25. Despite numerous educational bottlenecks at the country level, the India creates a large number of IT professionals. At the current levels of employability, India has the largest pool of suitable offshore talent, accounting for 30 percent of the total suitable pool available across all offshore destinations (OECD, 2016).

NASSCOM (2016) estimated demand for 8,50,000 IT and 1.4 million ITES professionals in the 2009-10, outstripping new supply. In 2016, it was estimated that in IT-BPO the employment increment has been around 76,000 in 2014-15, the highest after textile industry, according to the latest Economic Survey. The increasing demand of ICT professionals can be gauged from the fact that ICT usage among enterprises has registered a steady rise. For instance, as shown in Table 5, the percentage of enterprises using computers from 66 percent in 2005-06 to 73 percent in 2007-08, a trend witnessed in both rural and urban areas, 100 percent in 2016. Though all larger enterprises (with employment size 250 plus) use computers; whereas in the informal sector enterprises (with employment size 0-9) with low level of computer use (only 37 percent). Hence, there is a huge potential for further growth of computers in India particularly in the informal sector.

The study further found in 2003, majority of hardware professional (52 percent) were having educational qualification B.Tech (Electrical and Electronics), whereas 47.5 percent of software processional were MCA (Master in Computer Applications). These qualifications among ITES are only 11 percent and 16 percent respectively. However, as shown in Table 6, majority of the workers (86 percent) in the ICT sector are with some technical education, which in the hardware and software segments is nearly 95 percent and 63 percent in ICTES sector. The diversification has remained consistent during 2015-16.

Despite this, as evident in Table 6, the ICT sector is suffering acute shortage of trained manpower supply. For instance, in 2008 the IT export services faced shortage of almost 1, 00,000 IT professionals, and almost 1, 40, 000 in the ICT product and technology services. Nevertheless, according to a research report 'IT-BPO Sector in India: Strategic Review 2011', published by NASSCOM. The workforce in Indian IT industry will touch 30 million by 2020.

IV. Conclusion

In the 1970s when IT was conceptualized, it was limited to a small number of the gadgets based on the micro-electronics such as pocket calculator, digital watches and electronics games. People may have heard of the existence of the micro-processor as being sophisticated and very expensive forms of the typewriter, but people at large never seen it, let alone had access to one. Overtime, new technology in the form of ICT has pervaded all walks of modern life and society so profoundly that the modern society is colloquially known as *Information Society*.

In 2015-16, with a consistent growth rate of around 21 percent, ICT has led India become the main driver of productivity led growth but also helping India emerging a global knowledge power. Even during the

economic slow-down, the industry maintained it momentum of high growth rate. The domestic market size has trebled during 2003-08. According to the recent report by IDC, the IT industry in India has reached to the next level of ICT evolution termed as 'Growth Phase 2.0', which will enable the industry leverage and consolidate its infrastructure built during the earlier phase. According to the NASSCOM Perspective, 2020, increasing ICT spending and globalization of Indian companies is leading to maturation on Indian demand in terms of product diversification, delivery flexibility and services level.

It has revolutionized the development process itself by influencing its manifold dimensions be it economic, social, political, cultural, environmental, ethical, behavioral, etc. The contribution of ICT to Gross Domestic Product (GDP), employment generation, market diversification, operation of free markets, foreign exchange earnings, poverty reduction, environmental development, etc. are testimonies to what extent it influences the economy. On the political front, ICT facilitates through e-governance, the promotion of responsive, accountable & effective government and administration. It fosters socio-cultural development and the concept of global village & borderless society.

No doubt, the degree of contribution of the ICT to economies and societies vary according to their stage of development (developed, developing or underdeveloped), nature of political economy, availability of appropriate complementary infrastructure, etc. but certainly yes ICT as a form of new technology hold the key to enhanced productivity led growth in the country.

References:

- Brynjolfsson, E. and L. Hitt. 2000. Beyond Computation: Information Technology, Organizational Transformation and Business Performance, Journal of Economic Perspectives, Vol. 14 No. 4, pp. 23 – 48.
- [2]. Economic Survey, Various year: Government of India.
- [3]. Evangelista, R. 2000. Sectoral Patterns of Technological Change in Services, Economics of Innovation, Economics of Innovation and New Technology, Vol.9, pp.183–221.
- [4]. Freeman, C. and F. Louca. 2002. As Time Goes By: From the Industrial Revolutions to the Information Revolution, Oxford University Press, Oxford.
- [5]. Freeman, C. and C. Perez. 1988. Structural Crisis of Adjustment. In Dosi G., C. Freeman. and R. Nelson, (ed.), Technical Change and Economic Theory, Printer Publisher, London.
- [6]. Government of India, Various Years. Economic Survey, 2011-12.
- [7]. Government of India, 2015. Annual Report, Ministry of Communications and Information Technology, Department of Information Technology.
- [8]. Government of India, 2011. 11th Five Year Plan, 2007-12, Planning Commission, New Delhi.
- [9]. Indo-Italian Chamber of Commerce and Industry, 2006. ICT Industry of India, November.
- [10]. Kumar, N. and K.J. Joseph. 2005. Export of Software and Business Process Outsourcing from Developing Countries: Lessons from Indian experiences, Asia Pacific Trade and Investment Review, Vol. 1, No, 1, April.
- [11]. Mathur, S.K. 2007. Indian IT and ICT Industry: A Performance Analysis Using Data Envelope Analysis and Malmquist Index, Global economy Journal, Vol. 7, No. 02, pp. 1-40.
- [12]. NASSCOM 2015-16. The Rising Tide: The Output and Employment Linkage of IT-ITES, NASSOM, New Delhi.
- [13]. NASSCOM, Various Years. Annual Report, Delhi.
- [14]. National Sample Survey organization (NSSO): Various Rounds, Government of India.
- [15]. OECD, 2010: Information Technology Outlook, Paris, France.
- [16]. Schwere, R. 1987. Software Industry in Third World: Policy Guidelines, Institutional Options and Constraints, World Development, Vol. 15 (10/11), pp. 1249-

Table 1: Trend in Production and Growth of the Hardware and Computer Software Sector in India

	Production (R	s. Bn)				
	Electronic Hardware	Computer Software	Total	Growth over the previous Year	Export of IT/ITES/BPO (US\$Bn)	Growth Rate
2003-04	438	744.9	1182.9	21.9	12.7	
2004-05	505	1019.2	1524.2	28.9	17.4	37.0
2007-08	844.1	2114.1	2958.2	21.2	40.2	29.3
2008-09	946.9	2735.3	3682.2	24.5	46.3	15.2
2013-14	1234.5	3712.3	4946.8	23.1	54.6	13.2
2015-16	1435.1	4213.2	5513.3	21.4	61.2	14.1

Source: Department of IT, Ministry of Communication and IT, GOI.

Table 2	: Net add	Ition of 1	elephon	e auring	g the 11t	n Plan		1S)	
		Net						2015-	
2007	2011	Addition	2007	2008	2009	2010	2011	16	Total
41	66	25	3	4	5	6	7	3	25
154	583	430	70	80	90	95	95	124	430
195	650	455	73	84	95	101	102	127	455
10	50	40	7	7	8	9	9	5	40
0	100	100	10	15	20	25	30	37	100
10	135	125	17	22	28	34	39	38	140
	2007 41 154 195 10 0	2007 2011 41 66 154 583 195 650 10 50 0 100	2007 2011 Net Addition 41 66 25 154 583 430 195 650 455 10 50 40 0 100 100	2007 2011 Net Addition 2007 41 66 25 3 154 583 430 70 195 650 455 73 10 50 40 7 0 100 100 10	Net Net 2007 2011 Addition 2007 2008 41 66 25 3 4 154 583 430 70 80 195 650 455 73 84 10 50 40 7 7 0 100 100 10 15	Net Addition Net 2007 2008 2009 41 66 25 3 4 5 154 583 430 70 80 90 195 650 455 73 84 95 10 50 40 7 7 8 0 100 100 10 15 20	2007 2011 Net Addition 2007 2008 2009 2010 41 66 25 3 4 5 6 154 583 430 70 80 90 95 195 650 455 73 84 95 101 10 50 40 7 7 8 9 0 100 100 10 15 20 25	Net Addition Net 2007 2011 Net Addition 2007 2008 2009 2010 2011 41 66 25 3 4 5 6 7 154 583 430 70 80 90 95 95 195 650 455 73 84 95 101 102 10 50 40 7 7 8 9 9 0 100 100 10 15 20 25 30	2007 2011 Addition 2007 2008 2009 2010 2011 16 41 66 25 3 4 5 6 7 3 154 583 430 70 80 90 95 95 124 195 650 455 73 84 95 101 102 127 10 50 40 7 7 8 9 9 5 0 100 100 10 15 20 25 30 37

Table 2: Net addition of Telephone during the 11th Plan (Millions)
--

Source: Department of Communication and Information Technology, Annual Report, 2016.

Table 3: Gross Domestic Product (GDP) of ICT Sector (all figures are in Rs. Billion at Current Prices Unless Otherwise Mentioned)

Unicss	ound		nuonea)					
	2000- 01	2001- 02	2002- 03	2003- 04	2004- 05	2005- 06	2006- 07	2007- 08
GDP (at FC)	19250	20977	22614	25382	28777	32824	37794	43209
(i) computer related Services (in brackets: percent of total	269(4	339(4	414(5	546(5	708(5	918(5	1178(6	1452(6
ICT service)	6)	7)	2)	5)	7)	9)	1)	1)
(ii) other Communication (in brackets: percent of total	318(5	381(5	376(4	450(4	536(4	630(4	763(39	931(39
ICT service)	4)	3)	8)	5)	3)	1)))
B. Total ICT services sector GDP (i) + (ii)	587	720	790	996	1244	1548	1941	2383
C. ICT org mfg GVA	69	75	94	101	96	133	122	147
D. Total ICT Sector GDP (B) + (C)	656	795	884	1097	1340	1681	2063	2530
E. Manufacturing (mnf.) sector GDP	3004	3153	3460	3885	4536	5194	6180	7311
F. Services sector GDP	9713	10796	11909	13399	15142	17173	19848	24042
G. Share of ICT mfg. to mfg sector GDP (in percent)	2.3	2.4	2.7	2.6	2.1	2.6	2.0	2.0
H. Share of ICT services GDP to Services sector GDP								
(percent)	6.0	6.7	6.6	7.4	8.2	9.0	9.8	9.9
I. Share of ICT sector to total GDP (in percent)	3.4	3.8	3.9	4.3	4.7	5.1	5.5	5.9
J. Share of ICT services to total GDP (in percent)	3.0	3.4	3.5	3.9	4.3	4.7	5.1	5.5
K. Share of ICT mfg. to total GDP (in percent)	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3
L. Share of ICT mfg to total ICT GDP (in percent)	10.5	9.4	10.6	9.2	7.2	7.9	5.9	5.8
M. Share of ICT services to total ICT GDP (in percent)	89.5	90.6	89.4	90.8	92.8	92.1	94.1	94.2

Source: Department of IT, Ministry of communication and IT, GOI.

Note: Figures in brackets show the percentage share in Total ICT Services.

Table 4: Growth Performance of the ITES Sector in India (US\$ Billions)

					0 0 0 0 0 0)	
				2010-	2011-02	Growth 2011-	CAGR (11th	2015-16
Revenue	2007-08	2008-09	2009-10	11(E)	(P)	12	Plan)	
Total IT BPO								
								21.5
Total Services	52.1	59.9	64	76.3	87.6	14.8	13.9	
Export	40.4	47.1	49.12	59	68.7	16.4	14.2	22.4
Domestic	11.7	12.8	14.3	17.3	19	9.7	12.8	14.2

Source: Economic Survey, 2011-12

Table 5: Employment in ICT in India

	r				
Sectors	2004	2005	2006	2007	2015
IT Services	215000	297000	398000	562000	610231
IT BPO	216000	316000	415000	545000	613451
Engineering Services, R&D and software Products	81000	93000	115000	144000	149890
Domestic Market	318000	352000	365000	378000	410000
Total	830000	1058000	1293000	1629000	1783572

Source: NASSCOM, Annual Report, 2016.

Year Total enterprises	Total enterprises	percent using computer			percent using computer with no. of employees				
	Rural	Urban	Total	0-9	1049	50-49	250+	Total	
2005-06	140160	59.21	70.31	65.83	30.75	62.05	78.67	92.82	65.83
2006-07	144710	61.50	74.72	69.26	36.04	64.37	79.60	94.31	69.26
2007-08	146385	67.26	77.71	73.21	37.05	68.57	81.93	94.76	73.21
2015-16	164321	74.3	92.1	88.12	42.1	76.2	89.3	102.1	92.11