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Indian IT outsourcing industry: Future threats and challenges



Dinesh C. Sharma

A-65, Parwana Apartments, Mayur Vihar Phase I Extension, New Delhi 110091, India

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ABSTRACT

The Indian Information Technology–Business Process Outsourcing (IT–BPO) industry has often been a subject of envy among developing economies, for the rapid growth it has recorded in the past two decades. From being a destination of low-cost technical labour and a pioneer of ‘body shopping’ model, the industry has transformed itself into a USD 100 billion behemoth engaged in offering a wide range of services including high-end R&D. However, the growth engine appears to be slowing down as India begins to lose its competitive advantages. The future of Indian IT–BPO industry depends on three key factors – availability of quality manpower, capability of Indian industry to move up the value chain from customized development and maintenance services to innovation, R&D and product development, and the growth in domestic IT consumption in order to reduce dependence on export markets. On all the three counts, the future scenario is subject to uncertainties. The industry is also unprepared for disruptive technologies of future such as quantum computing and nano computing.

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In March 2013, something unusual happened in Bangalore – the city which houses the high technology cluster popularly known as India’s Silicon Valley. A group of youngsters – all engineering graduates from different colleges – were seen protesting outside the corporate office of HCL Technologies, India’s fourth largest information technology (IT) company. They were holding placards which read “HR, Give us DoJ (date of joining)”. It was a rare sight in the country’s software and services capital which counts Who’s Who of national and global technology industry among its inhabitants. It seems the young engineers were recruited from campuses across the country in September 2011 and were given ‘letters of intent’ so that they could join the firm after they finished the course. Instead of giving them letters of appointments, HCL delayed joining dates at least five times and then introduced a new screening process in August 2012 [1]. Even after this test, few were actually given jobs. Some 5000 such engineers were recruited from campuses in Bangalore, Chennai, Noida, Hyderabad and Pune.

A few years back such a scene would have been unimaginable because Indian IT companies such as HCL claim to follow the best HR practices in the world and treat employees on par with customers. Moreover, it is on the back of young engineering talent that this industry has expanded a great deal in the past two decades. Fresh engineering graduates have been in great demand all these years as entry-level computer coders. Even those passing out from colleges with average standard of education would get job offers from competing firms before finishing their course. The same held true for non-engineering graduates who were readily absorbed in the ever growing Business Process Outsourcing (BPO) firms, which together make up the 100 billion dollar IT–BPO industry of India. The protests in Bangalore showed that all is not well with the industry.

The changing scenario is not limited to HCL but is reflective of a silent change occurring in the industry in the past few years and is a good indicator of an emerging picture of the future. Companies are reducing the size of ‘bench pool’ – the number of staffers hired in anticipation of outsourcing contracts and kept idle or in training before deployment. They are also hiring skilled people from within the industry. In addition, many processes for which the industry hired entry level engineers

E-mail address: dineshsharma@gmail.com.

are being automated. The situation is no better in the BPO segment of the industry. It was predicted a few years back that India could lose its pre-eminent position in the IT-BPO position to other low-cost and 'me too' destinations in future. That future is already here. It is estimated that India has lost nearly one million jobs in the call centre business to other destinations such as the Philippines and Romania in the past five years, according to industry veterans [2].

Where does the Indian IT-BPO industry go from this point? What are the challenges and threats it would face? What does India need to do to stay ahead of the curve in the years to come? Will the focus of Indian IT industry shift from exports to domestic markets? Will the knowledge industry go beyond information and communication technology and expand to other emerging areas such as biotechnology and energy? What are disruptive technological changes that will influence the future of this industry? The paper seeks to explore some of these questions.

1. The journey till now

In order to sketch a future scenario for the IT industry, it is important to understand the success India has achieved in this field so far and how it has reached this stage. Contrary to the popular perception about this industry being a product of liberalization, the success seen in the past two decades is a result of a long chain of events which got initiated soon after the independence. Computing and commercial data processing came to India almost at the same time as in the West, and it developed as part of the larger project of organizing science soon after the country gained independence in August 1947 [3].

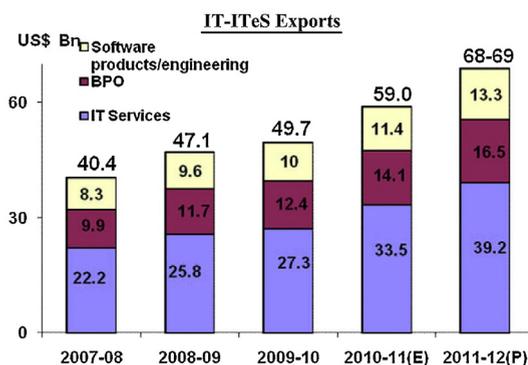
The early introduction of modern computers at scientific institutions like the Tata Institute of Fundamental Research and academic centres like the Indian Institute of Technology, Kanpur, coupled with the use of commercial data processing machines of IBM and ICL by industry and large users like the Indian Railways, helped build initial skills in software writing, hardware maintenance and related work in the 1960s and the 1970s. The introduction of minicomputers in the 1970s, after the era of IBM mainframe ended, further helped in software writing skills of Indian engineers on a variety of platforms and also in establishing links with customers in the US. But a closed economy stifled growth of hardware industry.

The first wave of liberalization came in the 1980s with gradual lowering of import duties on electronics, computers, peripherals and systems software. A push to domestic consumption came in the form of large state-funded initiatives such as National Informatics Centre Network (Ninet), the railway passenger reservation project and banking computerization. Though American firms like semiconductor designer Texas Instruments and software firm Burroughs (through their joint venture with the Tatas) had dedicated facilities for software exports, the breakthrough moment for smaller, home-made Indian software firms came when exports via satellite communication facilities set up by the government became a reality. The Software Technology Park (STP) scheme, which became fully operational only in the early the early 1990s, facilitated Indian companies to enter the American technology markets despite the handicap of size, distance and lack of physical infrastructure.

In the 2000s, the IT services industry added another dimension in the form of a range of services under the label of BPO or IT Enabled services (ITES). These included medical transcription, call centre operations for airlines, banks, insurance as well as technology companies. The backroom services being offered from India for American corporations kept on increasing till mid-2000s, earning India the sobriquet of 'the world's back office' or 'the call centre of the world'. The IT-BPO sector clocked aggregate revenues of USD 88.1 billion in 2010–2011, with the software and services sector alone accounting for USD 76.2 billion of revenues. Software and services exports made up more than a quarter of total Indian exports in 2010–11 [4]. The next year, the IT-BPO industry-aggregate revenues crossed USD 100 billion mark with exports at USD 69 billion.

| SERVICE LINES | US\$ Bn | | | | |
|----------------------------------|-------------|-------------|-------------|----------------|----------------|
| | 2007-08 | 2008-09 | 2009-10 | 2010-11 (E) | 2011-12 (P) |
| IT Services | 22.2 | 25.8 | 27.3 | 33.5 | - |
| BPO | 9.9 | 11.7 | 12.4 | 14.1 | - |
| Software products/engineering | 8.3 | 9.6 | 10.0 | 11.4 | - |
| Total | 40.4 | 47.1 | 49.7 | 59.0 | 69 (P) |

Source : NASSCOM



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