

## INDIAN ITES INDUSTRY: EMERGING TRENDS & CHALLENGES IN GLOBAL PERSPECTIVE

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### **ABSTRACT**

This Research article gives brief overview of IT Enabled Services scenario in India. It explains in brief the meaning of IT Enabled Services and also covers various services which have been identified as IT Enabled Services. It also throws some light on opportunities available to the industry. The author has also tried to identify some of the challenges and roadblocks present in the way of growth of IT Enabled Services in India.

**Keywords:** IT enabled services, brand equity, IT infrastructure

### **1. INTRODUCTION: INDIAN IT-ITES INDUSTRY**

The Indian Software Industry, in less than a decade, has emerged as a key player in the global Information Technology (IT) industry and in the software industry in particular (Asundi,2001; Landi,2003; Nirjar & Tylecote,2005). Over the past decade, the Information Technology (IT) industry has become one of the fastest growing industries in India, propelled by exports (the industry accounts for more than a quarter of India's services exports). The key segments that have contributed significantly (96 percent of total) to the industry's exports include – Software and services (IT services) and IT-enabled services (ITES) i.e. business services. The ITES industry refers to services delivered over telecom networks or the Internet to a wide range of business areas and verticals. Any service that is carried out based on the application of Information Technology could be termed as an IT-Enabled Service (ITES).Over a period of time, India has established itself as a preferred global sourcing base in these segments and they are expected to continue to fuel growth in the future. The industry has been growing more than 30 per cent since 2003, but during 2007-2008, Indian IT sector faces sharp decline in its turnover and recorded only 28.2 percent growth due to world markets recession.

Indian IT and ITES companies have created global delivery models (onsite-near shore-offshore), entered into long term engagements with customers, expanded their portfolio of services offerings, built scale, extended service propositions beyond cost savings to quality and innovation, evolved their pricing models and have tried to find sustainable solutions to various issues such as risk management, human capital attraction and retention and cost management.

The total direct employment in the Indian IT-ITES sector is estimated to have grown by over a million, from 2,84,000 in the year 2000 to a approximately

1,287,000 in the year 2006 and in 2008. Direct employment in Indian IT-BPO crossed the 2 million mark, an increase of about 389,000 professionals over the year 2007. IT services (incl. engineering services, R&D, Software products) exports, BPO exports and Domestic IT industry provides direct employment to 860,000, 700,000 and 450,000 professionals respectively. (NASSCOM-2008).

In addition to the nearly two million –strong workforce employed directly in the industry, this industry is estimated to have helped create an additional 8-9 million job opportunities through indirect and induced employment. Indirect employment includes expenditure on vendors including telecom, power, construction, facility management, transportation, catering and other services. Induced employment is driven by consumption expenditure of employees on food, clothing, utilities, recreation, health and other services. Table-1 gives year wise revenue of Indian IT-ITES Industry since 1997-98. Table – 2 gives details of IT-ITES exports since 1998-99. Figure -1 gives composition of Indian IT Industry.

Table – 1 Growth of Indian IT-ITES Industry (Revenue)

Sr. No	Year	US- \$ (Billion)	Rs. (Crore)	Share in India's GDP (Per Cent)
1	1997-98	5	18640	1.2
2	1998-99	6	25310	1.5
3	1999-2000	8.2	36180	1.9
4	2000-01	12.1	56590	2.7
5	2001-02	13.4	65790	2.9
6	2002-03	16.1	77960	3.2
7	2003-04	21.5	97830	3.5
8	2004-05	28.2	127580	4.1
9	2005-06	36.3	164260	4.8
10	2007-08	52.0	-	7.0
11	2008-09	58.8	-	-
12	2009-10	73*	-	-

(Source: Nasscom and Government Reports) \* McKinsey –NASSCOM projection

Table – 2 Growth of Indian IT-ITES Exports

India has successfully leveraged its fundamental advantages of abundant talent, a keen focus on quality and low costs coupled with an enabling business environment to attain the leadership position in this space.

Sr. No	Year	US- \$ (Billion)	YoY Growth (Per Cent)
1	1998-99	2.6	-
2	1999-2000	4.0	52.4
3	2000-01	6.2	56.9
4	2001-02	7.6	23.0
5	2002-03	9.9	28.8
6	2003-04	13.3	35.1
7	2004-05	17.9	34.8
8	2005-06	24.2	35.2
9	2007-08	40.4	29
10	2008-09	46.3	16.3
10	2009-10	60*	-

(Source: Nasscom and Government Reports) \* Estimated

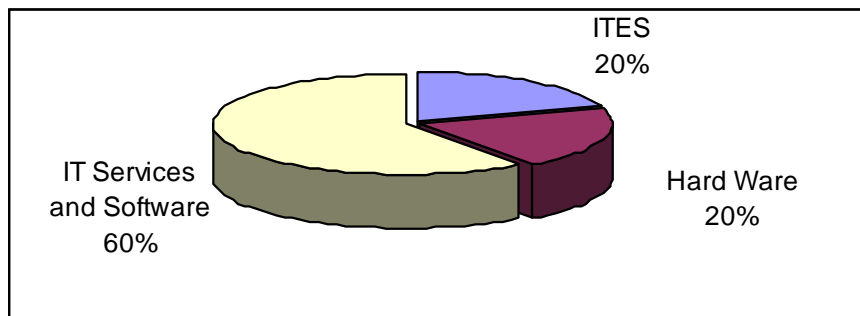


Fig. 1. Composition of Indian IT Industry: (Source: Nasscom)

## 2. ITES INDUSTRY

The last 4 to 5 years have seen India emerging as favorable destination worldwide for IT Enabled Service and has potential of becoming the major processing center of the world. India is fast emerging as the 'new' leader. Outsourcing to India is not seen as just another management fad but as case for success stories on cost savings and productivity enhancements for corporates especially in the US and Europe.

IT Enabled Services cover the entire range of services, which exploit information technology, for empowering a organization with improved efficiency. It also covers any type of activity, which could be rendered cost effective with the help of IT. The activity could be internal to the organization or it could be outsourced.

The technology is used as a tool to provide these services of which most of the functions are human-intensive. Due to this human-intensive nature, these processes and services are outsourced in order to derive a cost advantage without sacrificing quality and efficiency. Outsourcing enables a company to maximize its returns on internal resources by directing investments and energies on what it does best while outsourcing its non-core functions to specialists, thereby enhancing the company's competitive advantages.

ITES differ from software services. They are remotely delivered service with a value chain. ITES are more cost effective than software service. Its vertical market focus is much higher than the software market with a different profile of people.

NASSCOM had identified following activities as IT Enabled Services.

- BPO/Back Office Operations/Data Entry/Data Conversion
- Customer Interaction Services (Including Call Centers)
- Medical Transcription/Translation Services
- Legal Databases
- Digital Content Development
- Support Centers
- Payroll
- Website Services
- Network Consultancy and Management
- Data Search & Market Research
- Data Digitization/Geographic Information System (GIS)\*
- Engineering & Design Services\*

\* Some of the services (e.g. GIS) earlier included under ITES will now be reported under engineering and R & D Services.

IT Enabled Services can be classified mainly on the basis of level of complexities in service offered and required expertise.

NASSCOM has classified the ITES into six basic service lines – HR, Customer Care, payment Services, Content Development and others, Administration & Finance.

The ITES that is already evident in India includes the following broad segments- Call Centers, medical transcription, back office operations, pay roll services, revenue accounting and other operations, insurance claims processing, content

development and animation etc. Table – 3 gives year wise revenue of Indian ITES industry since 1999-2000.

Table. 3. Growth of Indian ITES Industry

Sr. No	Year	US- \$ (Billion)	Rs. (Crore)
1	1999-2000	0.54	2400
2	2000-01	0.88	4100
3	2001-02	1.45	7100
4	2002-03	2.10	10100
5	2003-04	3.4	15500
6	2004-05	5.2	23500
7	2005-06	7.2	32400
8	2007-08	9.5	NA
9	2008-09	12.5	NA

Source: Nasscom

The Indian ITES market has its roots in the mid-1990s, when companies such as American Express, British Airways and GE Capital set up captive units for customer support and transaction processing services. Over the past decade, India has emerged as a preferred location for organizations planning to outsource a variety of services ranging from call centers and other customer interaction services, insurance claims processing, payroll processing, medical transcription, e-CRM, SCM to back-office operations such as accounting, data processing and data mining.

Following are some of the examples which would explain, why foreign companies are outsourcing to India.

1. Off shoring to India has resulted in huge quality and productivity gains. Indian service providers armed with competent workforce and well entrenched systems and processes are offering customers guaranteed savings.
2. The US Banking and Financial Services sector has received productivity gains of 15 to 20 % and customer satisfaction of almost 85 % due to off shoring to India. In fact, it has emerged globally competitive as result of the outsourcing initiatives. The costs of this sector are 7 to 10 % lower compared to their European counter parts.
3. US banks, Financial Services and Insurance Companies have saved US \$6 billion in the past couple of years by off shoring to India. During the same period, these companies have added 1,25,000 new jobs, helped by these savings, which enabled them to prevent layoffs.

Following are strengths of Indian IT-ITES Industry, which enable the industry to sustain its leading position in world market.

### 3. STRENGTHS:

1. *Brand Equity:* India enjoys very strong 'Brand Equity' in major markets like the United States, Japan, Europe and the United Kingdom.

India remains the most preferred offshore location for sourcing a broad range of business services. The visibly higher preference for India is driven by its unmatched superiority when measured across a range of parameters that influence the choice of a sourcing location. India ranks highest in a detail analysis comprising 40 sourcing destination across the world. (A. T. Kearney, An Annual Sourcing Location Attractiveness Index, November 2005)

2. *Infrastructure:* In India, high quality international and national dedicated telecom infrastructure with high level of redundancies has been put in place over past few years.

Software Parks, IT Parks, Special Economic Zones (SEZ) and Knowledge Sector Industrial Estates are being developed to provide dedicated, international quality, cost effective real estate.

3. *Higher Productivity:* India call centers have a higher productivity compared to the call center operators in the US or UK. For example, an Indian Call center agent makes on an average 98 transactions compared to 95 by an agent in the UK. Besides, Indian call centers agent make 120 transactions an hour, while an agent in UK makes 100. The average speed of answer by an Indian call center agent is about 8 seconds, whereas the average speed of answer by a call center agent in the US is 20 seconds.
4. *Large Skilled Human Resource:* Indian education system places strong emphasis on mathematics and science, resulting in a large number of science and engineering graduates. Mastery over quantitative concepts, coupled with English proficiency has resulted in a skill set that has enabled the country to take advantage of the current international demand for IT. India has the largest English-speaking talent pool in the world. There is no other country that offers a similar mix and scale of human resources. Over 440,000 engineering degree and diploma holders, approximately 2.3 million other graduates and around 3,00,000 post-graduates are added each year.
5. *Quality Manpower:* Indian Programmers are known for their strong technical skills and their eagerness to satisfy clients. (Nasscom Strategic

Review:www.bpointdis.org/knowledgebase). Indian players have created a strong Value proposition in the ITES. India enjoys advantages of people sophistication in terms of a very large pool of English –Speaking scientific personnel, varied and extensive skill sets in terms of technology, and offering services at globally competitive costs. While some gaps in talent suitability exist, they are being adequately addressed through strong provider-level initiatives, focused on skill development. Additionally, industry-led initiatives such as the National Assessment of Competence (NAC), complemented by Government support, are helping further enhance India's long term talent advantage.

6. *Vendors:* Indian vendors are expanding their services offerings, enabling customers to deepen their offshore engagements; the shift from low-end business processes to higher-value, knowledge-based processes are having a positive impact on the overall industry growth. Indian vendors have successfully built-up scale of their operations to match the pace of increasing demand for these services- ensuring that client organizations do not have to settle for alternate options. Vendors are serving the needs of over 2/3rd of Fortune 500 companies. IT-BPO players are increasing their near-shore presence to enhance 'follow-the-sun' and 'multi-lingual' capabilities. Overall, the country's IT-BPO firms are present in over 77 cities across over 25 countries, apart from India.(Nasscom,2008)
7. *Quality of Services:* In the past few years, the Indian IT and ITES industry has pursued the goal of attaining the highest international standards of quality. As per World Bank Funded Study Report, vendors in the US prefer to get their software developed in India for its quality and cost advantage.

The emphasis on quality is just as predominant in the ITES industry. Most Indian ITES companies adhere to world class quality standards, have a dedicated quality department responsible for developing and deploying the organizations quality policies and undertake periodic review of their quality processes.

The Indian IT-BPO sector has built a strong reputation for its high standards of service quality and information security – which has been acknowledged globally and has helped enhance buyer confidence. The industry continues its drive to set global benchmarks in quality and information security through a combination of provider and industry-level initiatives and at strengthening the overall frameworks, creating greater awareness and facilitating wider adoption of standards and best practices.

Today, a majority of the companies in India have already aligned their internal process and practices to international standards such as ISO<sup>1</sup>, CMM<sup>2</sup>, Six Sigma<sup>3</sup>, etc., which has helped establish India as a credible sourcing destination. Number of Indian companies has acquired quality certifications with many companies certified at SEI CMM Level 5- higher than any other country in the world.

**Security :** There are several standards developed by organizations such as ISO, etc, that help companies incorporate world-class security processes. India is currently in the process of implementing a Data Protection Act (DPA) in line with the DPA in Europe and the GLBA4 in US. Such Laws coupled with efficient judicial system will go a long way in increasing Customer confidence.

Indian companies as well as the government have been active in adhering to international security standards such as ISO 17799, BS7799, COBIT and ITSM.

The required legal framework has been laid down by the government and a revamp of the country's Information Technology Act, 2000 is expected in the near future. The revised legal framework is likely to include provisions against a new range of computer crimes to cover areas like privacy, information protection and harming computer systems through viruses.

The Data Security Council of India (DSCI) was launched in 2007 to institutionalize efforts to further enhance the information security environment in India. Four Cyber Labs and Cyber Security Research Center has been set up to address the issue related to data security.

*8. Cost Advantage:* Outsourcing to India has provided companies with significant benefits over the arbitrage in labour costs- through process enhancement and improvements. For example, the annual salary of a software engineer is USD 90,000 in US, while in India it is around USD 6000. The per hour cost of software development is between USD 75-100 in US, while in India it is USD 25-35. Thus Indian offshore operations provide cost savings of 40 – 50 per cent.

1. ISO : International Standards Organization
2. SEI CMM : Software Engineering Institute (SEI) Capability Maturity Model (CMM)
3. Six Sigma : Six Sigma certification is a confirmation of an individual's capabilities with respect to specific competencies.

4. GLBA : Gramm Leach Biliey (GLBA) Security Standard
  5. COBIT:
  6. ITSM:
9. *Policy Environment:* The Indian Government recognizes that IT and ITES will influence economic development extensively in the future. It is a part of the Government's national agenda and all policies are driven to achieve maximum benefit on their industry.

Supportive policy and active private enterprise have helped in creating an enabling business environment to facilitate the rapid growth of Indian IT-BPO. Government policy played a key role in catalyzing growth in the early years and continues to aid growth with progressive reform. Public and private enterprise has contributed by building the required capacities of key business infrastructure, helping this sector enjoy world-class facilities and services. The private sector is now, in partnership with the Government, also beginning to play an increasing role in the overall infrastructure development i.e. Software Technology Parks of India (STPI) / Special Economic Zone (SEZ) (for IT-BPO) in the country.

The Government of India is taking proactive measures to encourage investments in this sector. Significant measures and incentives include a liberalized FDI regime, single-window clearance facility, income tax holiday and customs duty exemptions. State governments too are demonstrating a proactive approach towards attracting and facilitating investments and are providing support for the development of specialized infrastructure, focusing on development of a larger base of cities/towns to meet the needs of the industry and undertaking measures to continually enhance the supply and quality of manpower.

The Ministry of Information and Communication Technology is playing an active role in developing the infrastructure that supports the development of IT. Till 1994, DOT was the sole provider of basic telecom services India. The new National Telecom Policy has opened the field for private participants.

The IT Bill passed in 2000 provides a legal framework for the recognition of electronic contracts, prevention of computer crimes, electronic filling of documents etc.

Digital signature has been given legal validity and sanction of Act to address the issue of jurisdiction authentication and origination.

Intellectual Property Right (IPR) laws have been implemented to improve compliance with intellectual property rights.

A National Venture Fund for the software and IT industry with a corpus of Rs.100 Crore has been set up to provide venture capital to start-up software professionals and IT unit in the small –scale sector.

10. *Industry Eco-system*: The support infrastructure for the Indian IT and ITES industry which includes specialized firms for functions such as recruitment, training, property management, security, fleet management, book-keeping and payroll as well as industry associations has evolved over the years.

Some the challenges Indian ITES Industry are currently facing or likely to face in near future.

#### 4. CHALLENGES

1. The basic infrastructure in India i.e. roads, power, and telecom is clearly, below par and lead to tremendous inefficiencies in business. There is a lack of proper infrastructure facilities i.e good road, consistent power/water supply, airport in most places. Unless the infrastructure is improved significantly, India will not be able to maintain its competitive edge in long term.
2. Indian ITES operating cost on average are 20% of the US costs but the telecom costs in India are 155% of the US costs (Nasscom-2002). In India broad band provides 128 kbps, while in developed countries the pipe usually provides 2mbps. (Broadband –Any pipe that provides bandwidth of 128 kbps or more.)
3. Regular, Reliable, uninterrupted power, a major necessity for IT software and service business, is below par in India.
4. A number of East European countries have high quality engineers and in future, high end engineering jobs may move to these locations (Nasscom-2006). Also relevant to the fact that most of these countries have strong government support for developing the domestic IT industry.
5. *Geopolitical Risk*: India does not share cordial relations with its neighbour Pakistan. India is open to geopolitical risk due to the dispute with Pakistan over Kashmir issue. Political relations with China have yet to be completely normalized.
6. *Political Risk*: Buyers have to measure the political risk of outsourcing to Indian companies instead of closer providers in Canada and Mexico.

Offshore outsourcing is a highly charged emotional issue especially in unionized workforce. There is an increasing public opposition to off-shoring in higher wage countries.

7. The IT Industry being a Knowledge-based Sector requires workforce that is highly competent. To maintain the competitive advantage of having “Quality knowledge Workers” industry needs to constantly update the knowledge base of their employees. Despite the growth in the overall employee base, companies are struggling to retain their existing employees. The employee turnover in last decade in Indian IT Industry is around 20-25 per cent, which is the highest among Indian industries. Retaining & motivating knowledge workers are big challenges for the industry.
8. The US (61 per cent) and the UK (18 per cent) remained the largest IT-BPO export markets in 2007. America and Europe remain the key markets, accounting for over 90 per cent of total IT-ITES export. Any small change in economy of America or Europe will have a huge impact on revenue of Indian IT –ITES Industry. Due current global economic crisis, Indian ITES Industry is facing problems.
9. Cultural misalignment between India and Western countries still poses problems in large integrated projects.
10. *Distance from clients*: Only a few Indian companies have a global presence. Understanding the needs of the client requires a presence in the market in which the client operates, and regular communication between the company and the client. Foreign companies are not clear as to how the dual shore model will function, given the need for tight communication and coordination.
11. The past performance of some Indian companies has not been world class. It has disappointed some of the clients, and they are generally reluctant to work with Indian companies again. Recent episode of Satyam has also affected the creditability Indian IT firms.
12. *Bureaucracy*: The administrative set up and legal systems are complicated and resolution of issues takes a long time. Due to red-tapism, projects are not moving fast. Unclear and volatile policies could stifle growth. Corruption is still widespread.
13. Numbers of countries are working to copy India’s success story in IT-ITES industry. This may affect India’s future prospects in IT areas. Following are some of the examples ;

1. The Philippines has great advantage in Call Centre work for US companies because the decades of US involvement have produced both strong English language skills and an understanding of US culture. It specializes in BPO, Contact Centers, Animation and Application Development.
2. Russia's strong mathematical and science education make it a likely winner in scientific applications. It is specializing in high-end software engineering and has huge scale possibilities.
3. China's 1.3 billion people and technical skills could, with the right government policies, become a significant force. China is specializing in Embedded Software, Hardware Services, and Localization and Application Development. Like Russia, it has huge scale possibilities Today china is building Information Networks at a scale ranked Second in the world (next to US). Its strengths include political stability, strong government support, non-Latin language skills, 20-40% cheaper rates than India, & strong Linux skills. (Gartner Report).
4. Canada is specializing in Application Development, BPO and Contact Centers.
5. Northern Ireland specializes in Packaged Applications, Localization and Product Development.
6. Israel specializes in High-end Software and Learning System.
7. Mexico's proximity to the US and participation in NAFTA positions it as a strong near shore option for US companies.
8. Singapore is one of the leading locations for Asian headquarters for many global firms. Its high-quality telecom infrastructure, good technical talents have also made it a preferred destination for data centers.
9. Malaysia, the Caribbean, South Africa, Hong Kong, UK, Australia and the Netherlands have seen some ITES activity. However, the small size of their talent pools and lack of reference customers severely constraints their ability to emerge as hubs.

## 5. CONCLUSION

Today, India is undoubtedly the pre-eminent destination for offshore IT services. The Indian IT - ITES industry is poised for rapid growth over the next few years by offering a wider services portfolio, catering to a larger set of industry verticals

and evolving / adapting to suit the service delivery preferences of global customers. The key challenges that the industry faces include the need to sustain competitiveness in the face of alternative emerging locations and enhancing supply of quality human capital to cater to increasing demand. Philippines and China could pose the strongest competition to India and challenge India's supremacy in the medium and long term. Only China and Philippines, other than India, have a sizeable, low cost talent pool, which could meet global ITES manpower needs. Governments in both countries are taking significant steps to improve their attractiveness for the ITES industry.

The success of IT-Enabled Services in India can be achieved through greater coordination of the government, educational institutions and corporate houses. The government needs to create job opportunities in the undeveloped states and improve Telecom and IT infrastructure, to encourage more business ventures. The educational institutions need to impart relevant education to interested candidates. The corporate houses should help and encourage the setting up of training institutes across the country. The backbones of the ITES services are telecom infrastructure, Internet and software. For creating a more favorable growth environment for ITES, government needs to work on these policies. To make the land of potential into an '*IT Enabled Services Super Power*' it is necessary to adopt new models and techniques to keep growing and growing stronger and mightier.

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