



NASSCOM-McKinsey Report 2005

Extending India's Leadership
of the Global IT and BPO Industries

Executive Summary

Extending India's Leadership of the Global IT and BPO Industries

In the last decade, the IT and BPO industries have seen substantial offshoring. India has been the leading offshore destination during this period, and now accounts for 65 per cent of the global industry in offshore IT and 46 per cent of the global Business Process Offshoring (BPO)¹ industry. The global offshoring market continues to grow rapidly, as the proven benefits of offshoring (also termed global sourcing or global delivery) induce more and more companies to adopt these practices and providers develop the capabilities to serve even more sophisticated customers.

Our detailed analyses for this report indicate that the addressable market for global offshoring exceeds US\$300 billion. We believe that India can sustain its global leadership position, grow its offshore IT and BPO industries at an annual rate greater than 25 per cent, and generate export revenues of about US\$60* billion by 2010. Additionally, export growth can be further accelerated through deep and enduring innovation by industry participants. Such extensive innovation could generate an *additional* US\$15-20 billion in export revenue over the next five to ten years. Achieving these outcomes will require breakthrough collaboration between industry players, central and state governments, and NASSCOM.

Global offshoring dynamics

Our research suggests that rapid growth is likely to continue in the global offshore IT and BPO industries. We have examined the offshoring potential for each service line in the IT market and for each industry vertical in the BPO market. These bottom-up analyses indicate that the addressable market for global offshoring is above US\$300 billion, split almost evenly between IT and BPO. Further, we estimate that only around 10 per cent or so of this addressable market has been realised so far, leaving ample headroom for future growth.

¹ BPO is generally recognised to stand for Business Process Outsourcing. But, for the purpose of simplicity, in this report it stands for Business Process Offshoring—the practice of running business processes sent by companies to either their own units in offshore locations or to providers in offshore locations.

* Does not include exports of software products.

The addressable global market for offshore IT is around US\$150-180 billion. Going forward, the more traditional IT outsourcing service lines such as hardware and software maintenance, network administration and help desk services will account for 45 per cent of the total addressable market for offshoring and are likely to drive the next wave of growth. Service lines that have driven recent growth, i.e., application development and maintenance (ADM) and R&D services are already 30-35 per cent penetrated and are not as likely to grow dramatically.

The addressable market for the global BPO industry is equally sizeable and could expand by more than 10 times from its current size of approximately US\$11.5 billion to at least US\$120-150 billion. BPO growth will be driven largely by traditional industries (e.g., retail banking) and cross-industry functions such as Human Resources and Finance & Accounting.

While the addressable market for the global offshore IT and BPO industries is quite large, industry evolution will largely be shaped by the interplay of three major forces: (1) **supply** (the capacity and quality of offshore locations); (2) **demand ramp-up** (realistic adoption of offshoring by companies); and (3) **industry conduct** (the actions taken by industry players). We have built a sophisticated systems dynamics model to study the interplay of these forces and to evaluate various industry scenarios. Across most scenarios, we find that approximately 35-40 per cent of the total addressable market will be captured in the next five years. For example, while around US\$300 billion can ultimately be relocated from source countries to low-cost offshore locations, our modelling indicates that approximately US\$110 billion will actually be offshored by 2010.

The global offshore IT and BPO industries are subject to different constraints that will impact their ability to address the full market opportunity. The offshore IT industry is more likely to be demand-constrained, that is, market growth will largely be driven by the adoption rate of companies in "sending/source geographies". This in turn will be driven by the willingness to offshore and, more importantly, by the organisational preparedness (for offshoring) of these companies. On the other hand, the BPO industry is more likely to be supply-constrained due to potential talent shortfalls within the "receiving/service geographies".

India in the lead

India's leadership position in the global offshore IT and BPO industries is based on five main advantages: (1) **abundant talent**: India now accounts for 28 per cent of IT and BPO talent among 28 low-cost countries; (2) creation of **urban infrastructure** that has fostered several IT centres in the country; (3) **operational excellence** that has delivered cost and quality leadership in offshore service centres; (4) a **conducive business environment** including several favourable policy interventions such as telecom reforms; and (5) continued growth in the **domestic IT sector** that provides enabling infrastructure and develops a broad-based skill base.

Leadership has its rewards. Over the last four to five years, India's offshore industries have proven to be significant economic growth engines. They have grown roughly three-fold between 2000 and 2004, from US\$4.0 billion in 2000 to US\$12.8 billion in 2004, accounting for 6% of the increase in GDP between 2000 and 2004. According to the Centre for Monitoring Indian Economy, the offshore IT and BPO industries accounted for nearly 95 per cent of the absolute growth in foreign exchange inflows associated with services industries between 2000 and 2004. While total services exports grew by 60 per cent from US\$16 billion in 2000 to US\$25 billion in 2004, offshore IT and BPO exports tripled in the same period. Remittances from IT and BPO professionals in the US and Europe have also been major contributors to the large foreign exchange inflows coming to India. Today, these two industries directly employ nearly 700,000 people and provide indirect employment to approximately 2.5 million workers.

India's offshore industries have to overcome four major challenges to continue their heady growth and sustain their share relative to other competing countries. First, demand growth may slow down. Increasingly, companies understand that changing business processes to accommodate large offshore workforces is a difficult, time-consuming task and often produces lower savings than expected. Employees must document procedures and establish performance benchmarks before processes can be sent offshore. It can take 12 to 24 months before performance stabilises and the volume of work ramps up, which slows the payoff. Concerns about service quality and security, in the wake of several well-publicised breaches, are making some companies think twice before moving functions offshore. Moreover, as union

and political opposition to offshoring grows, companies in Europe and North America are growing more wary of sending thousands of jobs to India. During the recent referendums on the European constitution, as well as the 2004 US presidential campaign, job losses from offshoring were a major issue.

India also confronts a potential shortage of skilled workers in the next decade or so, particularly in the BPO industry. Currently only about 25% of technical graduates and 10-15% of general college graduates are suitable for employment in the offshore IT and BPO industries respectively. As countries from around the world enter the market and competition for offshoring contracts intensify, India must improve the quality and skills of its workforce. For instance, the country lacks large numbers of workers who are fluent in French, German, Japanese, and Spanish, making China and Eastern Europe more attractive offshoring destinations for Japanese and Western European companies, respectively.

Urban infrastructure is an equally major challenge. India's offshoring industries are dealing with bottlenecks ranging from power to cafeteria services. Cities are at a breaking point, and further growth will have to come from entirely new business districts outside of Tier I and Tier II cities. A final challenge facing Indian providers is the need to continuously innovate in developing new service lines and improving their operating processes. Traditional service lines such as ADM and call-centres are under pressure. Since wages and other costs are rising by 10-15% per year, India-based IT and BPO providers will need to keep finding ways to reduce total costs so that they can continue to offer customers 30-40% cost savings. In addition, the model of offshore replication of existing onsite processes limits providers from capturing the full value from offshoring.

Staying in the lead

India should aim to sustain its current leadership by assisting the growth of the offshore market, and then maintaining its current market share in the face of intense competition from other low-cost locations such as South Africa, China and Eastern Europe. This will result in export revenues of approximately US\$60 billion by 2010. To that end, IT and BPO industry players in conjunction with India's central government and state governments need to:

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- 1. Accelerate trade development efforts:** India must work with its trading partners (through the WTO and other trade promotion agencies) to streamline trade in professional services. This may require further efforts focused on the Mode 4 negotiations currently underway, as well as other specific bilateral agreements. India should also request source countries to further strengthen their wage insurance and labour market programmes to cushion the impact of offshoring job losses. Also, more efficient professional worker visa regimes in source countries are required for qualified individuals. In return, India needs to further open up several service industries such as financial services, accounting, and education; improve the enforcement of IP and patent violations; and ensure responsible visa usage.
 - 2. Improve talent supply:** India will need a 2.3 million-strong IT and BPO workforce by 2010 to maintain its current market share. Our supply projections indicate a potential shortfall of nearly 0.5 million qualified employees—nearly 70 per cent of which will be concentrated in the BPO industry. This gap can be bridged by the following initiatives: (a) expanding the pipeline of people willing to join the industry; (b) improving the quality of the potential and current workforce; (c) better matching jobs to people so that attrition is reduced.
 - 3. Strengthen local infrastructure:** India needs to deliver on both basic (e.g., power, public transport, international connectivity) as well as business infrastructure (office and retail space, security services, etc.). Between today and 2010 we estimate that the IT and BPO industries will have to employ an *additional* workforce of approximately 1 million workers near five Tier I cities (New Delhi, Bangalore, Hyderabad, Chennai and Mumbai), and approximately 600,000 workers across other towns in India. Thus the IT and BPO industries need at least five new “Gurgaon-plus” and five to seven new 'Pune-plus' integrated townships. The resulting burden on urban infrastructure is likely to be substantial. For example, over 1 million international airline trips a year will be required for these industries in 2010, constituting around 20% of total international airline trips undertaken by Indians in 2010.

These urban infrastructure demands require breakthrough public-private partnerships and innovative financing. In addition, the current infrastructure development process will have to be dramatically streamlined (e.g., creating

single point responsibility for developing and maintaining local infrastructure). Note that this infrastructure build-out does not require substantial public financial support since there is a robust business case for adding both the basic and the business infrastructure.

4. **Drive operational excellence:** India-based IT and BPO providers have retained their cost leadership position despite increasing wage rates. This has been accomplished through greater automation and code reuse, as well as tighter people management. Sustaining industry leadership will require India-based players to continue to drive down total costs and improve quality. For example, both offshore IT and BPO customers are now demanding "beyond cost" value propositions.

IT services players need to focus on three key areas: (a) enhance customer interaction and solution delivery (e.g., effectively influencing customer requirements and decisions); (b) improve resource management (e.g., hiring people with the right skills at the right tenure); and (c) upgrade support processes (e.g., accurate and quick financial reporting to facilitate decision making). For BPO players, NASSCOM and McKinsey have jointly developed a benchmarking framework called Process360° to help providers identify key operational gaps. The framework enables tangible improvements in output metrics (e.g., cost), by analysing 14 different operational areas. Typical high-impact areas are better recruitment and training practices, thorough transition management, and granular workflow management processes.

In addition to delivering US\$60 billion in export revenues by 2010, India's offshoring industries can generate another US\$15-20 billion of export revenues over the next five to ten years. This will require deep and enduring innovation across three dimensions: (a) business model innovation (e.g., focusing on new service lines like infrastructure offshoring); (b) knowledge innovation (e.g., developing deep IP-based solutions); and (c) ecosystem innovation (e.g., systematic talent enhancement, better technology research, more seed-stage capital).

India's economic growth will be greatly accelerated if the India-based IT and BPO industries sustain their global leadership and are able to generate approximately US\$60 billion in export revenues by 2010. At this level, these two industries alone can contribute 1% per year to GDP growth for the next five years. They would employ nearly 2.3 million people and provide indirect and induced employment for another approximately 6.5 million workers. India's offshoring industries could well become one of the world's great export industries at par with France's luxury goods industry, Japan's automotive sector and Taiwan's electronics manufacturing cluster.

An agenda for action

India's IT and BPO industries have benefited greatly from the committed support of India's central government, state governments and NASSCOM. Breakthrough collaboration among all stakeholders is now necessary to ensure that India sustains its global leadership position.

Agenda for the central government and state governments: Lead efforts on trade development, talent and infrastructure availability to these industries and help expand the domestic IT market:

- Accelerate efforts to ensure free trade in services through the Mode 4 negotiations at the WTO and through trade agreements with select countries.
- Ensure efficient visa regime for professional workers with the US, EU, and other source countries.
- Take reciprocal market-opening steps such as liberalising important industry sectors such as financial services and retail.
- Set up Focused-Education-Zones to improve quality of higher education.
- Deregulate higher education in stages over the next five to seven years, and shift to a largely demand-based funding system for colleges and universities.
- Immediately develop a master-plan for 10-12 integrated townships with associated urban infrastructure including international airports, roads and land development.

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- Facilitate large scale land acquisition (>1000 acres) and land development (e.g., sanitation system, power supply) for each integrated township.
 - Expedite modernisation of existing international airports.
 - Expand the domestic IT market by further computerising government functions and citizen services.

NASSCOM's agenda: Drive overall growth of the global offshoring market and ensure India remains the leading destination:

- Assist the government in trade development efforts by mobilising members, advising policy-makers and academics in source countries and continuing to build India's brand.
- Pilot industry-owned and government-facilitated integrated skill development programmes and scale-up to cover over 2,000 colleges by 2010.
- Sponsor awareness programmes highlighting career prospects in the IT and BPO industries and create excitement among job seekers about the industries, especially in upcountry cities/towns.
- Facilitate infrastructure development efforts by serving as a trusted advisor to governments, industry players, investors, and real estate developers. Help in developing detailed business cases for various locations. Provide industry requirements to governments and developers for efficient township development.
- Work with academic and industry advisors to formulate world-leading operational excellence standards. For IT services, institute an industry working group to develop an offshore-centric operations excellence framework and conduct annual benchmarking exercises for various service lines. For BPO, Process360° needs to be institutionalised through industry working groups (e.g., NASSCOM BPO Forum).

Agenda for companies: Sustaining profitable growth will be the key issue for providers as traditional high-growth areas (such as ADM) are likely to come under increasing pricing and competitive pressure. Future winners will make deliberate choices about their business approach. Industry dynamics suggest at least four possible winning approaches for the next five years:

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1. **Global Champion:** Full-service global IT and BPO provider offering multiple service lines and integrated solutions to large global accounts. Revenues are likely to exceed US\$10 billion with global delivery centres in India, China, and Eastern Europe.
 2. **IT Specialist:** A focused IT-oriented service provider with a top-five position in at least three or four major industry verticals and/or cross-industry service lines (such as infrastructure management services). Global revenues are likely to exceed US\$2 billion. Delivery centres may span India and one or two other low-cost locations.
 3. **ADM Factory:** One of the top three global low-cost providers of applications development and maintenance services through a "lean" operating environment built on a manufacturing mindset and superior scalability of operations. Such a player will probably employ over 50,000 developers in India and China, and generate revenues in excess of US\$2-3 billion. An ADM factory approach would also indicate close relationships with smaller-sized business consulting and systems integration firms that cannot afford to build massive, low-cost global delivery centres.
 4. **Specialist BPO:** Three types of specialised BPO providers appear possible: (a) an operator of industry-standard transaction or platform-based services e.g., card processing; (b) a top-three process reengineering provider with distinctive capabilities in transition, process automation and reengineering of customer processes; (c) a top-three vertical contractor providing highly skilled services such as chip design, financial analyses, aerospace engineering, or chemical plant engineering. Successful specialist BPO providers will manage a multi-location global delivery model and could generate revenues upto US\$5 billion.

Agenda for customers: Currently customers have tapped less than 10 per cent of their offshoring potential. To fully capture this potential and improve their global competitiveness, customers should:

- Partner with educational institutions in India to transfer talent development and training best practices.

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- Continuously evaluate which processes are best done in-house (by a captive centre).
 - Systematically build up organisational capabilities to manage business processes distributed around the world, integrate a large Indian workforce, and partner with selected vendors.
 - Move to a "beyond cost" mindset and actively seek quality and process improvement opportunities.
 - Assist industry efforts to improve urban infrastructure by becoming an "anchor tenant" in some of the integrated townships.

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India's offshoring industries are poised for continued dramatic growth. To date, these industries have played a major role in transforming India from a slow-growth economy with recurring balance of payments problems to a fast-growth economy generating ample foreign exchange surpluses. Millions of Indians have benefited directly from these industries, and the industries' contribution to the nation's economy and global standing has been immeasurable.

So much more lies ahead. In the next five years, India's offshore industries could generate US\$60 billion in export revenues, account for 17 percent of GDP growth, pay for a massive infrastructure build-out, and sustain around 9 million jobs. Saudi oil, Japanese cars, and Indian services—some industries can truly transform a nation.