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EXECUTIVE SUMMARY

Strong growth opportunities

• The IT-BPM sector in India expanded at a CAGR of 15 per cent over 2010–15, which is 3–4 times higher than the global IT-BPM growth, and is estimated to expand at a CAGR of 9.5 per cent to USD300 billion by 2020

Leading sourcing destination

• India is the world’s largest sourcing destination, accounting for approximately 55 per cent of the USD146 billion market. The country’s cost competitiveness in providing IT services, which is approximately 3-4 times cheaper than the US continues to be its USP in the global sourcing market

Largest pool of ready to hire talent

• India’s highly qualified talent pool of technical graduates is one of the largest in the world, facilitating its emergence as a preferred destination for outsourcing, computer science/information technology accounts for the biggest chunk of India’ fresh engineering talent pool, with more than 98 per cent of the colleges offering this stream

Most lucrative sector for investments

• The sector ranks fourth in India’s total FDI share and accounts for approximately 37 per cent of total Private Equity and Venture investments in the country

Cash Cow

• In 2015, revenues of Indian IT-BPM market reached USD146.5 billion
• Indian IT companies have helped clients to save USD200 billion in the last five years
• 640 offshore development centres for 78 countries

Source: NASSCOM, TechSci Research
Notes: BPM – Business Process Management, USP – Unique Selling Proposition

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IT & ITeS

Growing demand
- Strong growth in demand for exports from new verticals
- Rapidly growing urban infrastructure has fostered several IT centres in the country
- Expanding economy to propel growth in local demand

Global footprints
- IT firms in India have delivery centres across the world; as of 2015, IT firms had a total of 640 centres in >78 countries
- India’s IT industry amounts to 12.3 per cent of the global market, largely due to exports
- IT & ITeS industry is well diversified across verticals such as BFSI, telecom and retail

Competitive advantage
- Cost savings of 60–70 per cent over source countries
- A preferred destination for IT & ITeS in the world; continues to be a leader in the global sourcing industry with 55 per cent market share
- The Indian IT industry has saved clients USD200 Billion in the past five years

Policy support
- Tax holidays extended to the IT sector
- More liberal system for raising global capital, funding for seed capital & growth, and ease of doing business, etc. have been addressed
- USD0.17 billion have been allocated for raising global capital, start ups
- Income Tax cut on royalty fee on tech services to 10 per cent
- Cumulative FDI inflow in computer software & hardware is USD18,170.24 million from April 2000 to September 2015

Source: Nasscom, TechSci Research

Notes: SEZ stands for Special Economic Zone, BFSI stands for Banking, Financial Services and Insurance, E stands for Estimate, F stands for Forecast

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EVOLUTION OF INDIA’S IT SECTOR

**Pre-1995**
- By early 90s, US-based companies began to outsource work on low-cost and skilled talent pool in India

**1995-2000**
- IT industry started to mature
- Increased investment in R&D and infrastructure started
- India increasingly seen as a product development destination

**2000-05**
- The number of firms in India grew in size and started offering complex services such as product management and go-to market strategies
- Western firms set up a number of captives in India

**2005-15**
- Firms in India became multinational companies with delivery centres across the globe (640 centres in >78 countries, as of 2015)
- Indian IT-BPM revenue is USD146.5 billion in FY15
- The IT sector is expected to employ about 3.5 million people directly and around 10 million indirectly, as of FY15
- India’s IT sector is at an inflection point, moving from enterprise servicing to enterprise solutions
- In FY14, the launch of 10,000 start ups programmes has already touched over 25,000 entrepreneurs
SEGMENTS OF INDIA’S IT SECTOR

IT & ITeS sector

IT services
- Market Size: USD68 billion during FY15
- Over 80.88 per cent of revenue comes from the export market
- BFSI continues to be the major vertical of the IT sector

Business Process Management (BPM)
- Market size: USD27 billion during FY15
- Around 85.19 per cent of revenue comes from the export market
- Largest segment with 3.5 million jobs

Software products and engineering services
- Market size: USD24 billion during FY15
- Over 83.33 per cent of revenue comes from exports

Hardware
- Market size: USD13.5 billion during FY15
- The domestic market accounts for a significant share
- The domestic market is experiencing growth as the penetration of personal computers is rising in India

Source: Nasscom, TechSci Research
India’s technology and BPM sector (including hardware) has generated revenues of USD146.5 billion during FY15 compared to USD118 billion in FY14, implying a growth rate of 23.72 per cent.

The contribution of the IT sector to India’s GDP rose to approximately 9.5 per cent in FY15 from 1.2 per cent in FY98.

TCS is the market leader, accounting for about 10.1 per cent of India’s total IT & ITeS sector revenue.

The top six firms contribute around 36 per cent to the total industry revenue, indicating the market is fairly competitive.

Market size of IT industry in India (USD billion)

Source: Nasscom, TechSci Research
Note: E - Estimates
**Total exports from the IT-BPM sector (including hardware) were estimated to have been USD 98.5 billion during FY15; exports rose at a CAGR of 13 per cent during FY08–15 despite weak global economic growth scenario.**

**Export of IT services has been the major contributor, accounting for 56.35 per cent of total IT exports (including hardware) during FY15.**

**BPM accounted for 23.35 per cent of total IT exports during FY15.**

**Growth in export revenue (USD billion)**

<table>
<thead>
<tr>
<th>Year</th>
<th>IT services</th>
<th>BPM</th>
<th>Software Products and Engg. Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY09</td>
<td>8.8</td>
<td>9.9</td>
<td>25.8</td>
</tr>
<tr>
<td>FY10</td>
<td>10.0</td>
<td>11.7</td>
<td>25.8</td>
</tr>
<tr>
<td>FY11</td>
<td>11.4</td>
<td>14.1</td>
<td>33.5</td>
</tr>
<tr>
<td>FY12</td>
<td>13.0</td>
<td>15.9</td>
<td>39.9</td>
</tr>
<tr>
<td>FY13</td>
<td>14.1</td>
<td>17.8</td>
<td>43.9</td>
</tr>
<tr>
<td>FY14</td>
<td>14.0</td>
<td>20.0</td>
<td>52.0</td>
</tr>
<tr>
<td>FY15</td>
<td>20.0</td>
<td>23.0</td>
<td>55.5</td>
</tr>
</tbody>
</table>

**Source:** Nasscom, Make in India, TechSci Research
BFSI - A KEY BUSINESS VERTICAL FOR IT-BPM INDUSTRY

- BFSI is a key business vertical for the IT-BPM industry. It generated export revenue of around USD35.26 billion during FY14, accounting for 41.0 per cent of total IT-BPM exports from India.
- Approximately 85 per cent of total IT-BPM exports from India is across four sectors: BFSI, telecom, manufacturing and retail.
- The hitherto smaller sectors are expected to grow.
- With introduction of new policies for healthcare and retail, these sectors are expected to grow at a faster pace in coming years, thus accelerating revenue of IT enabled services for the sectors.

Export revenue growth across verticals (USD billion)

<table>
<thead>
<tr>
<th>Vertical</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>BFSI</td>
<td>31</td>
<td>14</td>
</tr>
<tr>
<td>Telecom</td>
<td>15.48</td>
<td>12</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>13.76</td>
<td>14</td>
</tr>
<tr>
<td>Emerging*</td>
<td>21.5</td>
<td>16</td>
</tr>
</tbody>
</table>

Distribution of export revenue across verticals (FY14)

- BFSI: 41%
- Telecom: 25%
- Manufacturing: 16%
- Emerging*: 18%

Source: MoRTH, TechSci Research, Department of Electronics and IT Annual Report
Notes: BFSI - Banking, Financial Services and Insurance, *Emerging- Retail, Utilities & Construction, Retail, Healthcare, Services, Transportation
The figures mentioned are for IT and BPM only and do not include engineering services and hardware exports.
WITH OVER 62 PER CENT SHARE, US IS MAJOR IMPORTER OF IT SERVICES

- US has traditionally been the biggest importer of Indian IT exports; over 62 per cent of Indian IT-BPM exports were absorbed by the US during FY15
- Non US-UK countries accounted for just 21.0 per cent of total Indian IT-BPM exports during FY15
- Europe, one of the fast growing IT markets in 2015, is expected to emerge as a potential market as higher inclination towards offshoring firms would increase demand for IT services
- Being the low cost exporter of IT services, India is going to attract more markets in other regions in the same manner it tapped US markets

Geographic breakup of export revenue (USD billion) (FY15)

<table>
<thead>
<tr>
<th>Geographical Region</th>
<th>2012</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>42</td>
<td>52</td>
<td>61</td>
</tr>
<tr>
<td>UK</td>
<td>12</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Europe (Excl. UK)</td>
<td>8</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>APAC</td>
<td>5</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>RoW</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Distribution of export revenue across geographies (FY15)

- US: 62%
- UK: 8%
- Europe (Excl. UK): 11%
- APAC: 17%
- RoW: 2%

Source: Nasscom, TechSci Research, Department of Electronics and IT Annual Report
Note: ROW is Rest Of the World, APAC is Asia Pacific

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## IT-BPM Sector Dominated by Large Players

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of players</th>
<th>Percentage of total export revenue</th>
<th>Percentage of total employees</th>
<th>Work focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>11</td>
<td>47-50%</td>
<td>~35-38%</td>
<td>• Fully integrated players offering complete range of services&lt;br&gt;• Large scale operations and infrastructure&lt;br&gt;• Presence in over 60 countries</td>
</tr>
<tr>
<td>Medium</td>
<td>120-150</td>
<td>32-35%</td>
<td>~28-30%</td>
<td>• Mid tier Indian and MNC firms offering services in multiple verticals&lt;br&gt;• Dedicated captive centres&lt;br&gt;• Near shore and offshore presence in more than 30-35 countries</td>
</tr>
<tr>
<td>Emerging</td>
<td>~1,000-1,200</td>
<td>9-10%</td>
<td>~15-20%</td>
<td>• Players offering niche IT-BPM services&lt;br&gt;• Dedicated captives offering niche services&lt;br&gt;• Expanding focus towards sub Fortune 500/1,000 firms</td>
</tr>
<tr>
<td>Small</td>
<td>~15,000</td>
<td>9-10%</td>
<td>~15-18%</td>
<td>• Small players focussing on specific niches in either services or verticals&lt;br&gt;• Includes Indian providers and small niche captives</td>
</tr>
</tbody>
</table>

Source: Nasscom, TechSci Research
NOTABLE TRENDS IN INDIA’S IT & IITES SECTOR … (1/3)

Global delivery model

• Indian software product industry is expected to reach the mark of USD100 billion by 2025. The number of global delivery centres of IT firms in India reached 580, spreading out across 75 countries, as of 2014
• New business models, technologies and addition of new markets is pushing growth; Infosys has opened a shop in Shanghai; TCS already has a big set-up in Uruguay

Global sourcing hub

• India continues to maintain a leading position in the global sourcing market. Its market share increased to 55 per cent in 2015. India’s IT industry amounts to 7 per cent of the global market

Engineering offshoring

• In 2014, India was the most preferred location for Engineering offshoring*, as per a customer poll Companies are now offshoring complete product responsibility
• The sector includes 640 Offshore Development Centres (ODCs) of 78 countries

Most lucrative sector for investments

• Increased focus on R&D by IT firms in India resulted in rising number of patents filed by them. In 2015 Indian IT-BPM sector is expected to grow 13 per cent since last year and reach USD146 billion

* - conducted by Booz and Co
NOTABLE TRENDS IN INDIA’S IT & ITES SECTOR … (2/3)

**Changing business dynamics**
- India’s IT market is experiencing a significant shift from a few large-size deals to multiple small-size ones
- The number of start-ups in technology is expected to reach 50,000, adding to around 2 per cent of GDP
- Delivery models are being altered, as the business is moving to capital expenditure (capex) based models from operational expenditure (opex), from a vendor’s frame of reference

**Large players gaining advantage**
- Large players with a wide range of capabilities are gaining ground as they move from being simple maintenance providers to full service players, offering infrastructure, system integration and consulting services
- Of the total revenue, about 80 per cent is contributed by 200 large and medium players

**New technologies**
- Disruptive technologies, such as cloud computing, social media and data analytics, are offering new avenues of growth across verticals for IT companies
- The SMAC (social, mobility, analytics, cloud) market is expected to grow to USD225 billion by 2020

**Growth in non-linear models**
- India’s IT sector is gradually moving from linear models (rising headcount to increase revenue) to non-linear ones
- In line with this, IT companies in India are focusing on new models such as platform-based BPM services and creation of intellectual property
NOTABLE TRENDS IN INDIA’S IT & ITES SECTOR … (3/3)

**Consumerisation of IT**
- Global outsourcing is being used to drive fundamental re-engineering of end-to-end processes
- Increased emphasis on beyond cost benefits
- IT firms in the current phase have moved up the value chain, providing innovation-led growth to clients from SLA satisfaction and RoI calculations

**Emergence of Tier II cities**
- Tier II and III cities are increasingly gaining traction among IT companies, aiming to establish business in India
- Cheap labour, affordable real estate, favourable government regulations, tax breaks and SEZ schemes facilitating their emergence as a new IT destination
- Giving rise to the domestic hub and spoke model, with Tier I cities acting as hubs and Tier II, III and IV as network of spokes

**SMAC technologies, an inflection point for Indian IT**
- Social, Mobility, Analytics and Cloud (SMAC), a paradigm shift in IT-BPM approaches experienced until now, is leading to digitisation of the entire business model

**Rural Development**
- The National Optical Fibre Network (NOFN) is being laid down in phases to connect all the 250,000 gram panchayats in the country

Notes: SLA - Service Level Agreement; RoI - Return on Investment
PORTER FIVE FORCES ANALYSIS

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**PORTERS FIVE FORCES ANALYSIS**

<table>
<thead>
<tr>
<th><strong>Competitive Rivalry</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Intense competitive rivalry exists due to low switching costs</td>
<td></td>
</tr>
<tr>
<td>• Most of the bigger Indian firms offer same services and there is little product differentiation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Threat of New Entrants</strong></th>
<th><strong>Substitute Products</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Easy entry as the capital required is low</td>
<td>• Threat is medium as new centres, such as Philippines and China, are fast gaining ground among investors due to their low cost advantages</td>
</tr>
<tr>
<td>• Large players, however, toughen prospects of small and medium players to win large deals</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bargaining Power of Suppliers</strong></th>
<th><strong>Bargaining Power of Customers</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Bargaining power of suppliers is less as most of their businesses come from the same geographies</td>
<td>• Bargaining power is high as many IT firms fight for a similar project</td>
</tr>
<tr>
<td>• Price taker rather than price maker</td>
<td>• Firms are mostly dependent on same geography, which increases customer power</td>
</tr>
</tbody>
</table>
IT & ITeS

STRATEGIES ADOPTED

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IT & ITeS

STRATEGIES ADOPTED

Expanding in Tier II & III cities and externally
- Companies are expanding their business to Tier II & III cities to have low cost advantage
- Infosys expanded to Indore and Mohali in FY14 to increase its penetration across India.
- Companies are expanding their business towards emerging economies of East Europe and Latin American countries

Movement to SMAC & digital space
- Social Computing, Mobility, Analytics and Cloud (SMAC) is taking significant leaps
- Companies are getting into this field by offering big data services, which provides clients better insights for future cases

Product and Pricing differentiation
- Most of the IT companies have been offering similar products and services to their clients
- The companies are working towards product differentiation through various other services by branding themselves, e.g. Building Tomorrow's Enterprise by Infosys
- Indian IT firms have started to adopt pricing strategies to compete with Global firms like IBM and Accenture

Promotion of R&D
- Companies are now investing a lot in R&D and training employees to create an efficient workforce, enhancing productivity and quality
- R&D forms a significant portion of companies’ expenses, which is critical when margins are in pressure, to promote innovations in the changing landscape

Fast-growing sectors within the BPM domain
- Knowledge services, data analytics, legal services, Business Process as a Service (BPaaS), cloud-based services

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IT SECTOR TO BE DRIVEN BY STRONG DEMAND AND INDIAN EXPERTISE

- 5.8 million graduates are estimated to have been added to India’s talent pool in FY15, 1.5 million form ready to hire pool.
- Strong mix of young and experienced professionals

- Global BPM spending estimated to rise by 4.4% and reach USD2.7 billion in 2015
- Global IT services spending is expected to have declined by at around 5.5 per cent during 2015 and reached USD3.5 trillion

- Computer penetration expected to increase
- Increasing adoption of technology and telecom by consumers and focused government initiatives leading to increased ICT adoption

- Robust IT infrastructure across various cities in India such as Bengaluru
- Technology mission for services in villages and schools, training in IT skills and E-Kranti for government service delivery and governance scheme

Notes: STPI stands for Software Technology Park of India, SEZ stands for Special Economic Zone, ICT - Information and communications technology
Indian IT companies like TCS, TechMahindra Limited, Mphasis, HCL Technologies Limited, Larsen & Tourbo Infotech Limited, Wipro Technologies Limited, Oracle Financial, Infosys Technologies Limited are expanding their footprint in order to meet client’s requirements globally.

Indian Firms have started adopting the global delivery model to cater to the local market and for taking advantage of low cost.

IT Sector Segmental Breakup - By Companies (FY15)

- Indian Service Providers (TCS, Infosys, Wipro, HCL, etc) - 68.0%
- Global inhouse centers (EMC, Fordm Boeing, Honeywell, etc) - 18.0%
- Multinational Corporations (IBM, Accenture, HP, Microsoft, etc) - 14.0%
**TECHNOLOGY – A KEY INFLUENCER FOR DOMESTIC IT SERVICES … (2/2)**

- Introduction of large e-Governance projects to provide better services through IT and focus on the formation of the cyber policy led to higher demand for IT and hardware from the government

- The Central Government and State/UT Government allocated 0.9–1.2 per cent and 2.8–3 per cent, respectively, of total budget for IT spend under the 12th Five Year Plan

- Strong consumer demand for IT service and products:
  - Advent of smartphones, tablets and iPads
  - Industry leaders are stressing the need for promoting support start-ups
  - Rising computer literate population
  - Enhanced internet and mobile penetration
  - Growing disposable income strengthening consumer purchasing power
  - Emerging verticals (retail, healthcare, utilities) are driving growth above 14 per cent

---

**Domestic revenue from IT and BPM (USD billion)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (USD billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY15</td>
<td>48.0</td>
</tr>
<tr>
<td>FY16E</td>
<td>55-57</td>
</tr>
<tr>
<td>FY20F</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Nasscom, TechSci Research  
Notes: UT - Union Territory, E:Estimated F - Forecasts
In 2015 the revenue from exports of IT and BPM sector was USD98 billion. Global IT-BPM spending has grown 4.6 per cent over 2013 to nearly USD2.3 trillion.

India’s IT industry amounts to 4.26 per cent of the global market, largely due to exports as of 2015. In the year 2015 India comprised of around 500 BPM players generating a revenue of USD23 billion, which is expected to rise and reach 50 billion in 2020.

Emergence of SMAC would provide USD1 trillion market by 2020.

Emerging economies are likely to be a major contributor to IT spend growth.

IT spend in emerging economies to grow 3-4 times faster than advanced economies.

The BRIC IT market is estimated at USD380–420 billion by 2020.

Stable tax regime, reducing litigation related to tax and providing conducive environment for start-ups will improve the business environment.

Source: Nasscom, TechSci Research, Budget 2015-16
Notes: UT- Union Territory, E - Estimated

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Availability of skilled English speaking workforce has been a major reason behind India’s emergence as a global outsourcing hub.

During FY08-15, no of graduates addition to talent pool in India grew at a CAGR of 9.4 per cent.

India added around 5.8 million graduates to the talent pool during FY15.

Growing talent pool of India has the ability to drive the R&D and innovation business in the IT-BPM space.

Graduates addition to talent pool in India (in millions)

- FY2010: 3.7
- FY2011: 4.0
- FY2012: 4.4
- FY2013: 4.7
- FY2014: 5.3
- FY2015: 5.8

Source: Nasscom, TechSci Research
Note: Graduates includes both graduates and post graduates
INDIAN TALENT POOL READY TO TAKE IT SECTOR TO THE NEXT LEVEL … (2/2)

- About 2 per cent of the industry revenue is spent on training employees in the IT-BPM sector.
- USD1.6 billion is spent annually on training workforce and growing R&D spend.
- Forty per cent of total spend on training is spent on training new employees.
- Numerous firms have forged alliances with leading education institutions to train employees.

Training expenditure by Indian IT-BPO sector, 2014

- Recruitment cost
- Salaries for inhouse training staff
- Employee welfare
- External training (existing employees)
- Other costs
- External training (new recruits)

Source: TechSci Research

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NASSCOM’S PLAN TO INCREASE EMPLOYABILITY OF INDIA’S TALENT POOL

Objectives

Short term
- Enhance overall yield of employees
- Improve employability
- Expand to Tier II cities to reduce operating costs
- Low skill dependence

Medium term
- Reduce investment on training
- Develop specialist and project management expertise
- Develop a robust and credible information repository

Long term
- Expand education capacity
- Promote reforms in education

Initiatives

- Industry to enhance investment in training
- Use NAC and NAC – Tech to assess employability of talent pool
- Identified new tier II locations

- Launched the National Faculty Development Programme to increase suitability of faculty
- Aiding industry access to specialist programmes offered by independent agencies
- NASSCOM, in partnership with the industry, has developed a unique initiative ‘National Skills Registry’ a national database of registered and verified knowledge workers in the industry

- Expansion of higher education infrastructure; 20 new IIITs to be set up by the government
- Programme to increase PhDs in technology

Source: Nasscom, TechSci Research
Notes: NAC – Nasscom Assessment of Competence, IIIT - Indian Institutes of Information Technology
SEZ’S TO DRIVE IT SECTOR; TIER II CITIES EMERGE AS NEW CENTERS … (1/2)

* In FY15, STPI operational units were spread across 53 locations, 46 are in Tier II and III cities

* As of FY2014, 3,676 STPI units were operational, while 3,335 units have exported IT services and products

* IT-SEZs have been initiated with an aim to create zones that lead to infrastructural development, exports and employment

Characteristics of STPI and SEZ in India

<table>
<thead>
<tr>
<th>Parameters</th>
<th>STPI</th>
<th>SEZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term</td>
<td>• 10 years</td>
<td>• 15 years</td>
</tr>
<tr>
<td>Fiscal benefits</td>
<td>• 100 per cent tax holiday on export profits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Exemption from excise duties and customs</td>
<td></td>
</tr>
<tr>
<td>Location and size restrictions</td>
<td>• No location constraints • 23 per cent STPI units in tier II and III cities</td>
<td>• Restricted to prescribed zones with a minimum area of 25 acres</td>
</tr>
</tbody>
</table>

Source: Nasscom, TechSci Research, STPI (Software Technology Parks of India)
### Trends in tier II and III cities

- As of 2013, 43 new tier II/III cities are emerging as IT delivery locations; this could reduce pressure on leading locations.
- Cost in newer cities is expected to be 28 per cent lower than that in leading cities.
- Lower cost and attrition, affordable real estate and support from local government, such as tax breaks, STPI and SEZ schemes, are facilitating this shift of focus.
- Over 50 cities already have basic infrastructure and human resource to support the global sourcing and business services industry.
- Some cities are expected to emerge as regional hubs supporting domestic companies.

### IT sector employment distribution in Tier I and Tier II/III cities

<table>
<thead>
<tr>
<th>Year</th>
<th>Tier I locations</th>
<th>Tier II/III locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>1,821</td>
<td>175</td>
</tr>
<tr>
<td>2018</td>
<td>1,615</td>
<td>3,230</td>
</tr>
</tbody>
</table>

Source: Nasscom, E&Y, TechSci Research
**TREMENDOUS GROWTH OF GLOBAL IN–HOUSE CENTRES**

**Key highlights**

* Global In-House Centres (GIC), also known as captive centres, are one of the major growth drivers of the IT-BPM sector in India. They also operate in engineering services and software product development.

* In 2015, there were more than 1025 GICs operating out of India, across multiple locations accounting for USD19.4 billion of export revenues, almost 20 per cent of the industry export revenues, and employing >25 per cent of the total manpower.

* The impact of the segment goes beyond revenue and employment, as it helped in developing India as a R&D hub and create an innovation ecosystem in the country.

* Within the captive landscape, Engineering Research & Development/Software Product Development (ER&D/SPD) is the largest sub-segment.

* Companies from North America and Europe are major investors in the captive segment in India, accounting for over 90 per cent of captives in the country.

**Number of GIC’s in India**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>180</td>
</tr>
<tr>
<td>2005</td>
<td>460</td>
</tr>
<tr>
<td>2010</td>
<td>710</td>
</tr>
<tr>
<td>2012</td>
<td>760</td>
</tr>
<tr>
<td>2013</td>
<td>790</td>
</tr>
<tr>
<td>2014</td>
<td>825</td>
</tr>
<tr>
<td>2015</td>
<td>1025</td>
</tr>
</tbody>
</table>

*Source: Zinnov, Nasscom, TechSci Research*
The IT & BPM sector continued to attract PE and VC investments in 2015, accounting for a significant proportion with 235 deals in the year FY15.

Total P/E investments were USD9 billion in FY15, with the biggest deal being AZB & Partners investment of USD2197.05 million.

Total P/E investments were USD9 billion in FY15.

PE-VC investments in IT & BPM (USD billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Deals</th>
<th>Share of IT-BPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY11</td>
<td>104</td>
<td>38.38%</td>
</tr>
<tr>
<td>FY12</td>
<td>137</td>
<td>40.9%</td>
</tr>
<tr>
<td>FY13</td>
<td>161</td>
<td>40.76%</td>
</tr>
<tr>
<td>FY14</td>
<td>262</td>
<td>50.38%</td>
</tr>
<tr>
<td>FY15</td>
<td>235</td>
<td>53.00%</td>
</tr>
</tbody>
</table>

Source: Venture Intelligence, Nasscom, TechSci Research
NEWER GEOGRAPHIES AND VERTICALS PROVIDE HUGE OPPORTUNITIES

- BRIC nations, continental Europe, Canada and Japan have IT spending of approximately USD380–420 billion
- Adoption of technology and outsourcing is expected to make Asia the second largest IT market

- SMBs have IT spend of approximately USD230–250 billion, but contribute just 25 per cent to India’s IT revenue
- The emergence of new service offerings and business models would aid in tapping market profitably and efficiently

- Government, healthcare, media and utilities together have IT spend of approximately USD190 billion, but account just 8 per cent of India’s IT revenue
- Non-linear growth due to platforms, products and automation
- Emerging verticals (retail, healthcare, utilities) are driving growth

Source: All the figures are taken from International Data Corporation (IDC) and Nasscom and are FY10 estimates
Note: SMB - Small and Medium Businesses
EXPANSION OF FOCUS AREA TO AID FUTURE GROWTH … (1/4)

* Traditional verticals, i.e. BFSI, telecommunication and manufacturing, continue to remain the largest in terms of IT adoption and are expected to grow at an average of 15 per cent
* Implementation of cloud environment and mobility is the way forward for traditional verticals
* Emphasis on other emerging verticals (e.g. education, healthcare and retail) to aid growth in IT firms in India
* Shift from IT adoption infrastructure, automation and digitisation to smart IT marks future trend of services in emerging verticals
* Other untapped sectors like Education and utilities has a huge potential for IT & ITeS to grow into

**IT-BPM Exports Revenue (USD Billion)**

<table>
<thead>
<tr>
<th>Year</th>
<th>IT services</th>
<th>BPM</th>
<th>Packaged software, ER&amp;D and product development</th>
<th>Hardware</th>
<th>eCommerce</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY13</td>
<td>76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY14</td>
<td>86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY15</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY16E</td>
<td>110-112</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Indian IT-BPM (Domestic and Export) Revenues (2015)**

- **Domestic**
  - IT services: 13.0
  - BPM: 4.0
  - Packaged software, ER&D and product development: 20.0
  - Hardware: 0.5
  - eCommerce: 14.0

Source: Nasscom, TechSci Research
Note: E – Estimated

For updated information, please visit [www.ibef.org](http://www.ibef.org)
As IT is increasingly gaining traction in SMB’s business activities, the sector offers impressive growth opportunities and is estimated at approximately USD230–250 billion by 2020.

Govt. sectors have a huge potential for IT enabled services, as IT penetration is low in the sector. Increasing digitalisation will lead to growth in revenues for IT sector in coming years.

Technologies, such as telemedicine, health, remote monitoring solutions and clinical information systems, would continue to boost demand for IT service across the globe.

IT sophistication in the utilities segment and the need for standardisation of the process are expected to drive demand.

Digitisation of content and increased connectivity is leading to a rise in IT adoption by media.

Companies to focus on local problems and find engineering solutions.

---

### Market size of other progressing verticals by 2020 (USD billion)

<table>
<thead>
<tr>
<th>Sector</th>
<th>2020 Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media</td>
<td>17</td>
</tr>
<tr>
<td>Utilities</td>
<td>25</td>
</tr>
<tr>
<td>Healthcare</td>
<td>58</td>
</tr>
<tr>
<td>Government</td>
<td>90</td>
</tr>
<tr>
<td>SMB</td>
<td>250</td>
</tr>
</tbody>
</table>

Source: Nasscom, TechSci Research
Note: Small and Medium Business
Emerging technologies present an entire new gamut of opportunities for IT firms in India

- SMAC provide USD1 trillion opportunity

- Cloud represents the largest opportunity under SMAC, increasing at a CAGR of approximately 30 per cent to around USD650–700 billion by 2020

- Social media is the second most lucrative segment for IT firms, offering a USD250 billion market opportunity by 2020

Growing technologies future growth

Source: Nasscom, TechSci Research
Note: Size of bubble indicates market size, *CAGR and market size for Big data/analytics is till 2015
Emerging geographies would drive the next growth phase for IT firms in India

BRIC would provide USD380–420 billion opportunity by 2020

Focus on building local credible presence, high degree of domain expertise at competitive costs and attaining operational excellence hold key to success in new geographies

Emphasis on export of IT services to current importers of other products and services

Countries offering growth potential to IT firms

<table>
<thead>
<tr>
<th>Country</th>
<th>IT spend</th>
<th>India’s penetration</th>
<th>Key segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>USD63 billion</td>
<td>~1.5 per cent</td>
<td>Enterprise applications, cyber security, healthcare IT</td>
</tr>
<tr>
<td>Europe</td>
<td>USD230 billion</td>
<td>&lt;1.5 per cent</td>
<td>IT sourcing, BPM, IS outsourcing, CAD</td>
</tr>
<tr>
<td>Japan</td>
<td>USD235 billion</td>
<td>&lt;1 per cent</td>
<td>CRM, ERP, Salesforce automation, SI</td>
</tr>
<tr>
<td>Spain</td>
<td>USD26 billion</td>
<td>&lt;1.5 per cent</td>
<td>IT sourcing, SI</td>
</tr>
<tr>
<td>Mexico</td>
<td>USD29 billion</td>
<td>~4 per cent</td>
<td>IT sourcing, BPM</td>
</tr>
<tr>
<td>Brazil</td>
<td>USD47 billion</td>
<td>~2 per cent</td>
<td>Low level application management, artificial intelligence, R&amp;D</td>
</tr>
<tr>
<td>China</td>
<td>USD105 billion</td>
<td>&lt;1 per cent</td>
<td>Software outsourcing, R&amp;D</td>
</tr>
<tr>
<td>Australia</td>
<td>USD48 billion</td>
<td>~4 per cent</td>
<td>Procurement outsourcing, infrastructure software &amp; CAD</td>
</tr>
</tbody>
</table>

Source: Nasscom, TechSci Research
Established in 1968, Tata Consultancy Services (TCS) is an Information Technology (IT) services, consulting and business solution company. The company provides end-to-end technology and technology-related services to global enterprises. The company’s business is spread across the Americas, Europe, Asia-Pacific, and Middle East and Africa (MEA).

Achievements:
- 2015: Gold, Silver and Bronze Stevie® Winner at the American Business Awards
- 2014: Gold and Silver Stevie® Winner at the American Business Awards
- 2013: Won Best Performing Consultancy Brand Award in Europe
- 2013: Received Red Hat North America Awards for System Integrator Partner of the Year
- 2012: TCS China ranked among the top 10 global services providers in China
- 2012: Secure the Edge® portfolio unveiled
- 2012: TCS BaNCS won Xcelent Customer Base Awards

Segment-wise revenue breakdown (FY15)

- Application Development & Maintenance
- Enterprise Solutions
- Assurance Services
- Engineering & Industrial Services
- Infrastructure Services
- Global Consulting
- Asset Leveraged Solutions
- Business Process Services

Source: TCS website and Annual Report, TechSci Research
TCS: AN EMERGING GLOBAL IT MAMMOTH … (2/3)

TCS accounts for nearly half of the Indian IT industry’s combined market capitalisation

Source: TCS website and Annual Report, TechSci Research
Note: * is for the FY2014
FY16* - April-September, 2015

Leading IT players by revenue (FY16*)

<table>
<thead>
<tr>
<th>Company name</th>
<th>Revenue (USD billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCS</td>
<td>8.2</td>
</tr>
<tr>
<td>Infosys</td>
<td>4.6</td>
</tr>
<tr>
<td>Wipro</td>
<td>3.6</td>
</tr>
<tr>
<td>HCL Tech</td>
<td>6.5 (FY15)</td>
</tr>
<tr>
<td>Tech Mahindra</td>
<td>1.65</td>
</tr>
</tbody>
</table>

JANUARY 2016
TCS: AN EMERGING GLOBAL IT MAMMOTH … (3/3)

Consolidation of market position through CMC acquisition

1968
India’s first software service company

Issued IPO in the market in India and raised USD1.2 billion in 2004

With a brand value of over USD1 billion, consolidated its position as one of the largest IT players

Acquisition of IT service firm Alti in France in 2013

Expanded geographic presence

FY16* USD8.2 Billion revenue

FY15 USD15.7 Billion revenue

FY12
Acquired microDATA GIS

FY03
Became the first software company in India to cross USD1 billion revenue

FY09
Active client base: 1,156
New clients: 153

FY13

Source: TCS website and Annual Report, TechSci Research
FY16* - April-September, 2015

For updated information, please visit www.ibef.org
Established in 1991, HCL Technologies Ltd is an IT services company providing enterprise and custom application, business transformation, infrastructure management, business process outsourcing and engineering services. The company’s network of 26 offices is spread across the US, Europe and Asia Pacific.

Achievements:

- 2015: Wins 2 CA Technologies Partner Awards
- 2014: Received Best Governed Company Award from Asian Centre for Corporate Governance & Sustainability
- 2013: Won IT Europa, European IT Excellence Awards and Asia Pacific Enterprise Leadership Award 2013
- 2012: Received Market Facing Innovation award at the NASSCOM Innovation Awards, 2011
- 2011: Received Operational Excellence & Quality award at BPO Excellence Awards 2010–11
- 2009: Nokia corporation announces to set up a joint venture with HCL to sell mobile value added services directly to consumers in India. HCL-BSNL work together on national broadband penetration programme

Segment-wise revenue breakdown (April 15):

- Business Services: 34.6%
- Engineering and R&D Services: 32.4%
- Infrastructure Services: 16.1%
- Application Services: 6.9%

Source: HCL Technologies website and Annual Report, TechSci Research

For updated information, please visit www.ibef.org
HCL: GROWING BY LEAPS AND BOUNDS … (2/3)

Financial performance (USD Million)

- Revenue
- Operating Profit

Number of customers

Source: HCL Technologies website and Annual Report, TechSci Research
HCL: GROWING BY LEAPS AND BOUNDS … (3/3)

- **1997**: Established with spun-off HCL's R&D business
- **FY09**: Launched IPO
- **FY06**: Signed the biggest ever software service deal with DSG
- **FY14**: HCL forays into healthcare with the launch of HCL Healthcare
- **FY15**: Revenue crossed USD5.5 Billion
- **FY15**: Acquisition of Capitalstream and AXON Group
- **FY15**: Diversification of business and geography mix
- **FY15**: Organic growth through prudent strategies
- **FY14**: Adoption of non-linear strategy; formation of JVs and alliances

Source: HCL Technologies website and Annual Report, TechSci Research
INFOSYS: EMERGENCE OF AN INDIA-BASED MNC … (1/3)

Established in 1981, Infosys Limited is engaged in consulting, engineering, technology and outsourcing services. The company’s end-to-end services include consulting and system integration. Infosys operates through 30 offices across India, the US, China, Australia, the UK, Canada and Japan.

Achievements:

- FY16*: Revenue crosses USD4.6 billion
- 2015: Revenue crosses INR533 Billion
- 2015: Infosys would offer software solutions on Verizon Cloud for the U.S. Bank
- 2015: Infosys completed the implementation of Smart Oilfield Services Solutions for FTS International
- 2014: Infosys secured the “Green Energy Award” and “Gold Award” at the International Ashden Awards Ceremony
- 2013: Ranked first in the annual Euromoney Best Managed Companies in Asia survey
- 2013: Received NASSCOM Business Innovation Award 2013 for Infosys Edge

Segment-wise revenue breakdown (FY15)

- Financial Services and Insurance (FSI) 29%
- Manufacturing (MFG) 16%
- Energy & Utilities, Communication and Services (ECS) 16%
- Retail, Consumer Packaged Goods and Logistics (RCL) 16%
- Life Sciences and Healthcare (LSH) 7%
- Growth Markets (GMU) 10%

Source: Infosys website and Annual Report, TechSci Research
FY16*- April-September, 2015
INFOSYS: EMERGENCE OF AN INDIA-BASED MNC … (2/3)

Financial Performance (USD Billion)

Number of Customers

Source: Infosys website and Annual Report, TechSci Research
FY16* - April-September, 2015
INFOSYS: EMERGENCE OF AN INDIA-BASED MNC … (3/3)

Aerospace, defence & airlines
Automotive
Financial service
Healthcare, pharmaceuticals & biotech
Industrial manufacturing
Logistics and distribution

1981: Founded in Pune with an initial capital of USD250
1992: Organic growth
1993: Launched IPO
1995: Expansion across the world and offshore business
1998: Large client acquisitions
1999: Reached USD100 million and listed on NASDAQ
FY12: Listed on the NYSE market
1999: Acquisition of Lodestone Holding AG
FY15: USD8.7 Billion turnover
FY16*: USD4.6 Billion turnover
FY16*: April-September, 2015

Strong diversified client base of 890 clients in FY14

Source: Infosys website and Annual Report, TechSci Research

For updated information, please visit www.ibef.org
National Association of Software and Services Companies (NASSCOM)
Address: International Youth Centre Teen Murti Marg, Chanakyapuri, New Delhi – 110 021
Phone: 91 11 2301 0199
Fax: 91 11 2301 5452
E-mail: info@nasscom.in
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GLOSSARY … (1/2)

* **APAC**: Asia Pacific
* **BFSI**: Banking, Financial Services and Insurance
* **BPM**: Business Process Outsourcing
* **CAGR**: Compounded Annual Growth Rate
* **C&U**: Construction & Utilities
* **FDI**: Foreign Direct Investment
* **GOI**: Government of India
* **INR**: Indian Rupee
* **IT & ITeS**: Information Technology-Information Technology Enabled Services
* **NAC**: Nasscom Assessment of Competence
* **RoI**: Return on Investment
* **ROW**: Rest of the World
* **SEZ**: Special Economic Zone
* **SLA**: Service Level Agreement

For updated information, please visit www.ibef.org
**SMB**: Small and Medium Businesses  
**STPI**: Software Technology Parks of India  
**T&M**: Telecom & Media  
**T&T**: Travel and Transport  
**USD**: US Dollar  
**USP**: Unique Selling Proposition  
**UT**: Union Territory  
**Wherever applicable, numbers have been rounded off to the nearest whole number**
## Exchange Rates

### Exchange rates (Fiscal Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR equivalent of one USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004–05</td>
<td>44.81</td>
</tr>
<tr>
<td>2005–06</td>
<td>44.14</td>
</tr>
<tr>
<td>2006–07</td>
<td>45.14</td>
</tr>
<tr>
<td>2007–08</td>
<td>40.27</td>
</tr>
<tr>
<td>2008–09</td>
<td>46.14</td>
</tr>
<tr>
<td>2009–10</td>
<td>47.42</td>
</tr>
<tr>
<td>2010–11</td>
<td>45.62</td>
</tr>
<tr>
<td>2011–12</td>
<td>46.88</td>
</tr>
<tr>
<td>2012–13</td>
<td>54.31</td>
</tr>
<tr>
<td>2013–14</td>
<td>60.28</td>
</tr>
<tr>
<td>2014–15</td>
<td>61.06</td>
</tr>
<tr>
<td>2015-16(Expected)</td>
<td>61.06</td>
</tr>
</tbody>
</table>

### Exchange rates (Calendar Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR equivalent of one USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>43.98</td>
</tr>
<tr>
<td>2006</td>
<td>45.18</td>
</tr>
<tr>
<td>2007</td>
<td>41.34</td>
</tr>
<tr>
<td>2008</td>
<td>43.62</td>
</tr>
<tr>
<td>2009</td>
<td>48.42</td>
</tr>
<tr>
<td>2010</td>
<td>45.72</td>
</tr>
<tr>
<td>2011</td>
<td>46.85</td>
</tr>
<tr>
<td>2012</td>
<td>53.46</td>
</tr>
<tr>
<td>2013</td>
<td>58.44</td>
</tr>
<tr>
<td>2014</td>
<td>61.03</td>
</tr>
<tr>
<td>2015(Expected)</td>
<td>63.72</td>
</tr>
</tbody>
</table>

Source: Reserve bank of India, Average for the year
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