



IT & ITeS

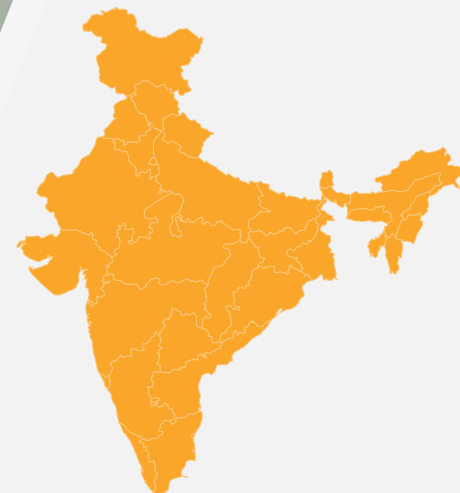
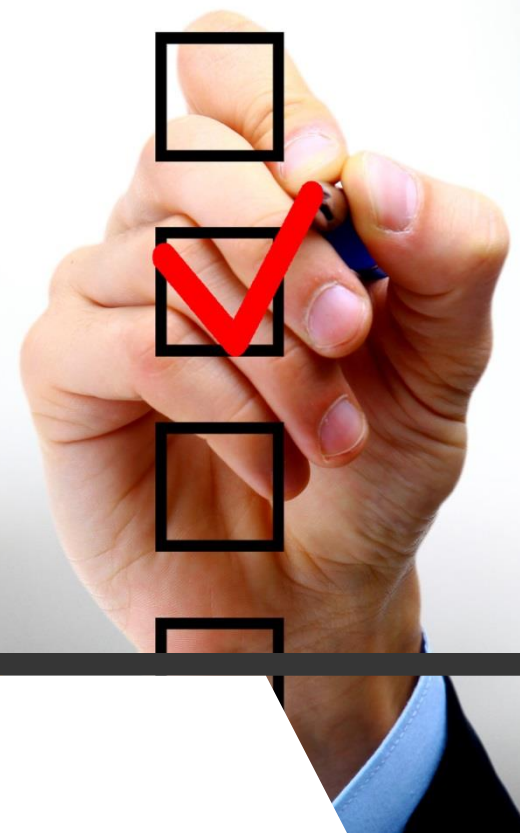


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EXECUTIVE SUMMARY

Large contribution to the Indian economy

- India's IT industry contributed around 7.7 per cent to the country's GDP. IT industry employs nearly 3.97 million people in India of which 105,000 were added in FY18. The industry added around 1,05,000 jobs in FY18 and is expected to add over 100,000 jobs in FY19.
- IT industry is fueling the growth of start-ups in India, with the presence of around 5,300 tech start-ups in India.

Strong growth opportunities

- The IT-BPM sector in India expanded at a CAGR of 10.71 per cent to US\$ 167 billion in FY18 from US\$ 74 billion in FY10, which is 3–4 times higher than the global IT-BPM growth. It is estimated that the size of the industry will grow to US\$ 350 billion by 2025.

Leading sourcing destination

- India is the leading sourcing destination across the world, accounting for approximately 55 per cent market share of the US\$ 185-190 billion global services sourcing business in 2017-18.
- India acquired a share of around 38 per cent in the overall Business Process Management (BPM) 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's fresh engineering talent pool, with more than 98 per cent of the colleges offering this stream.

Most lucrative sector for investments

- The computer software and hardware sector in India attracted cumulative Foreign Direct Investment (FDI) inflows worth US\$ 32.23 billion between April 2000 and June 2018 and ranks second in inflow of FDI, as per data released by the Department of Industrial Policy and Promotion (DIPP).

Export and employment growth

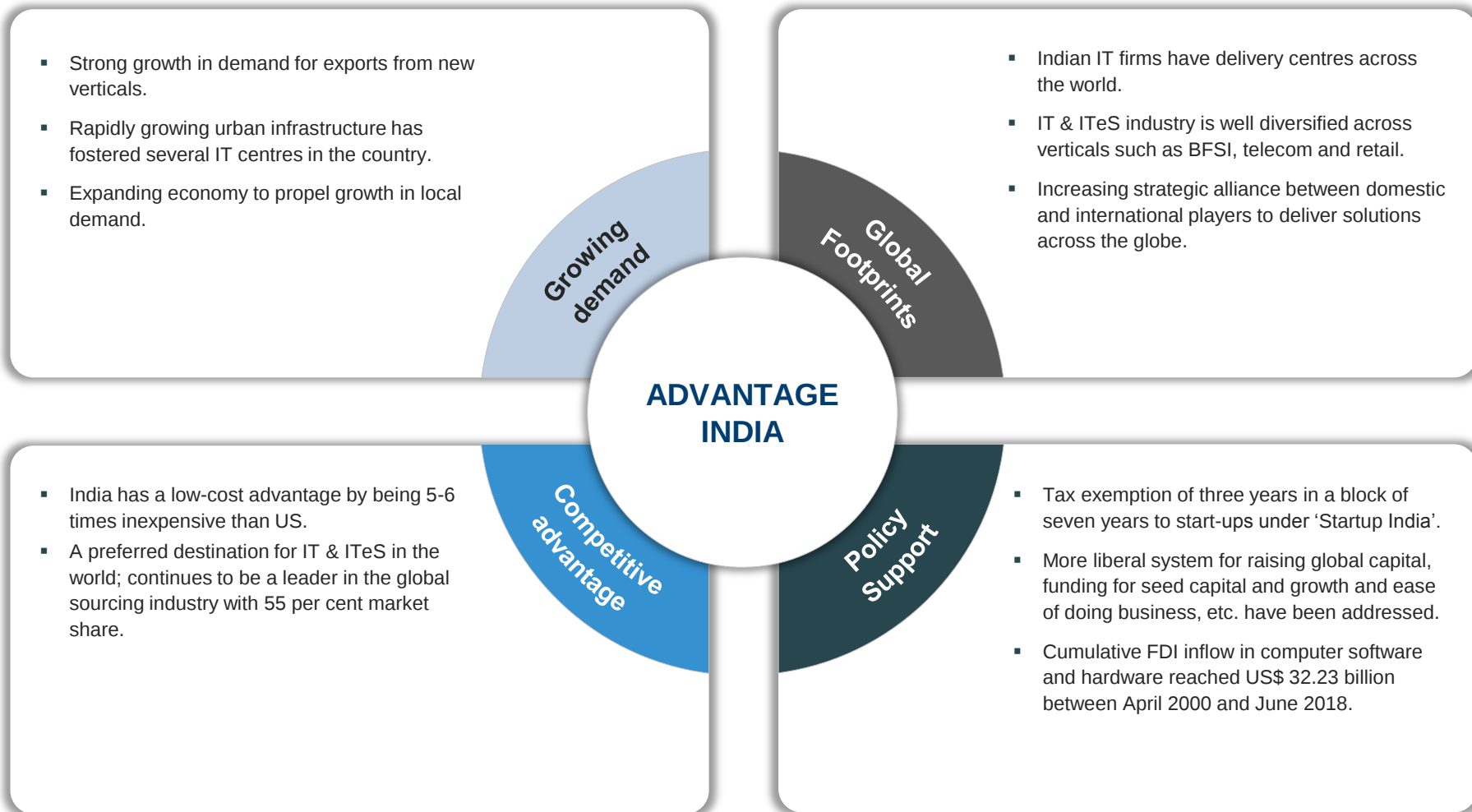
- Indian IT exports are projected to grow at 7-9 per cent to US\$ 135-137 billion in 2018-19. IT-BPM sector accounts for largest share in total Indian services export, which is 45 per cent.

Note: BPM – Business Process Management

Source: NASSCOM, DIPP, Aranca Research

ADVANTAGE INDIA





Note: Nasscom

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

MARKET OVERVIEW



EVOLUTION OF THE INDIAN IT SECTOR

- With increased investment in R & D, India became a product development destination.

- Firms in India became multinational companies with delivery centres across the globe
- India's IT sector is at an inflection point, moving from enterprise servicing to enterprise solutions

Pre-1995

1995-2000

2000-05

2005-2016

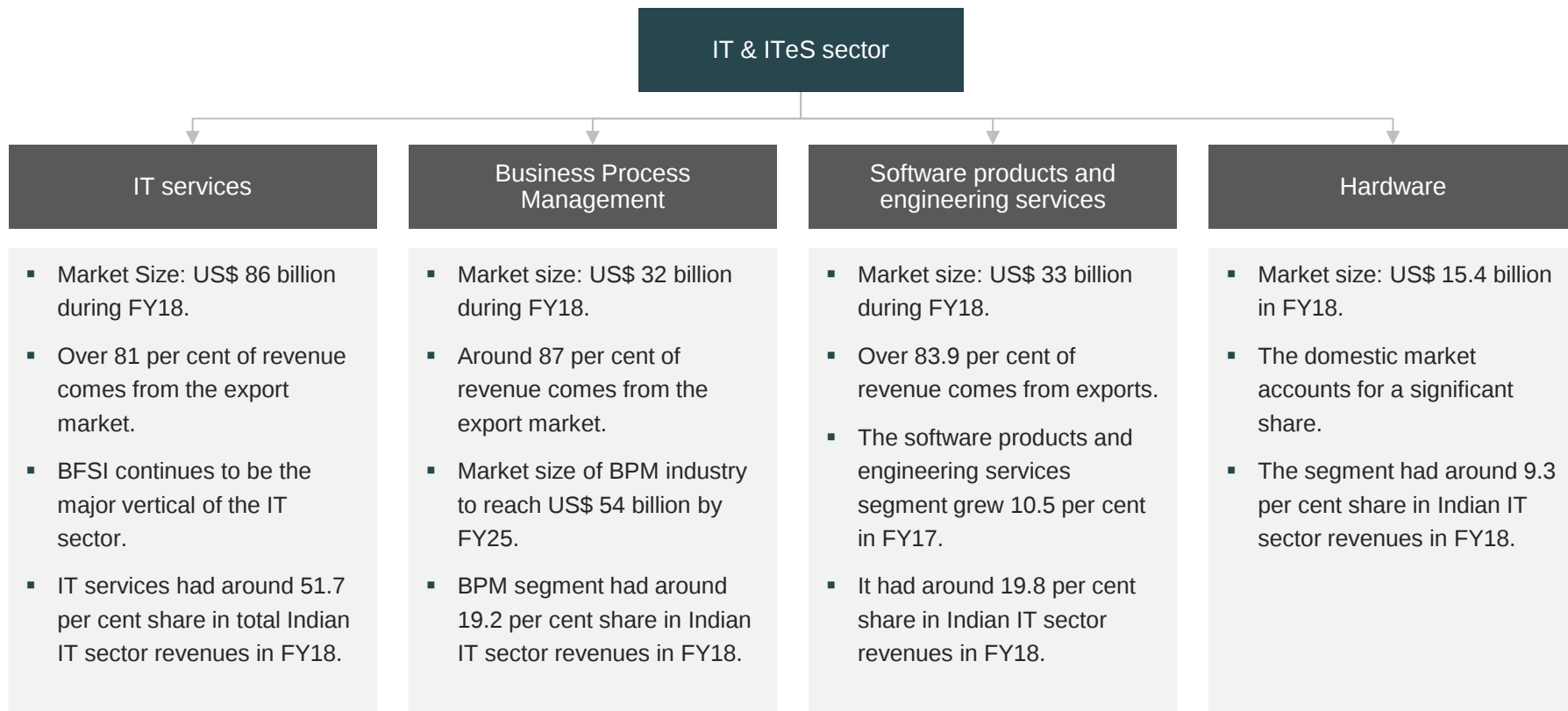
2017

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

- Firms in India grew in terms of their size and scope of services offered as more and more western companies setup their bases in the country.

- The US\$ 167 billion Indian IT industry employs nearly four million people.
- India ranks third among global start-up ecosystems with more than 5,300 tech start-ups.
- Indian IT and BPM industry is expected to grow to US\$ 350 billion by 2025

SEGMENTS OF INDIA'S IT SECTOR



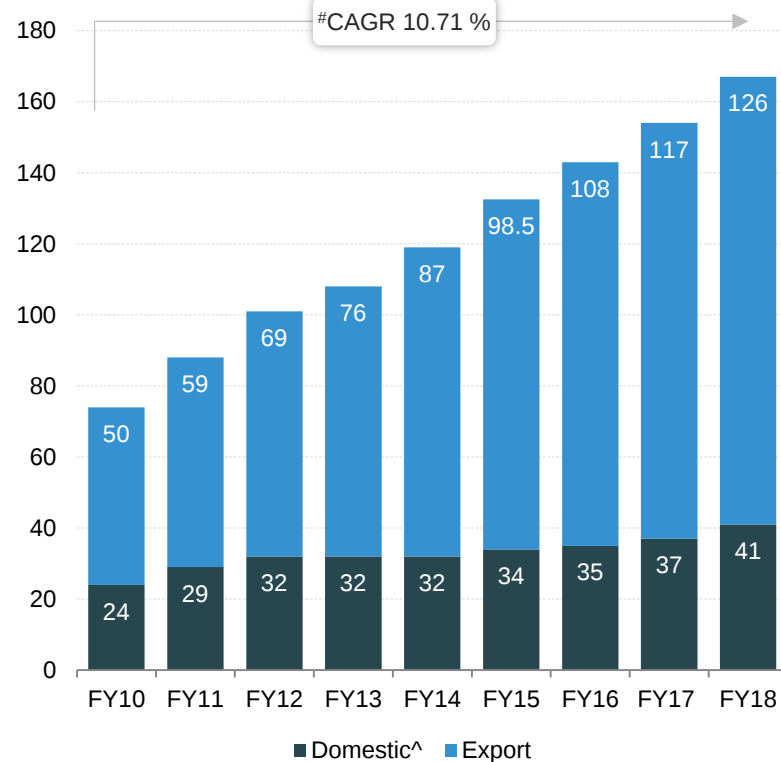
Notes: E - estimated

Source: NASSCOM, Aranca Research

INDIA'S IT MARKET SIZE GROWING

- IT BPM industry revenues (excluding hardware) was estimated at around US\$ 154 billion in FY 2016-17 and grew to US\$ 167 billion in FY 2017-18.
- The contribution of the IT sector to India's GDP stood at 7.9 per cent in 2017-18.
- The domestic revenue[^] of the IT industry is estimated at US\$ 41 billion and export revenue is estimated at US\$ 126 billion in FY 18.
- The market size of India's IT-BPM sector is expected to grow to US\$ 350 billion by 2025 and BPM is expected to account for US\$ 50-55 billion out of the total revenue.
- Spending on Information Technology in India is expected to grow over 9 per cent to reach US\$ 87.1 billion in 2018.*

Market size of IT industry in India (US\$ billion)

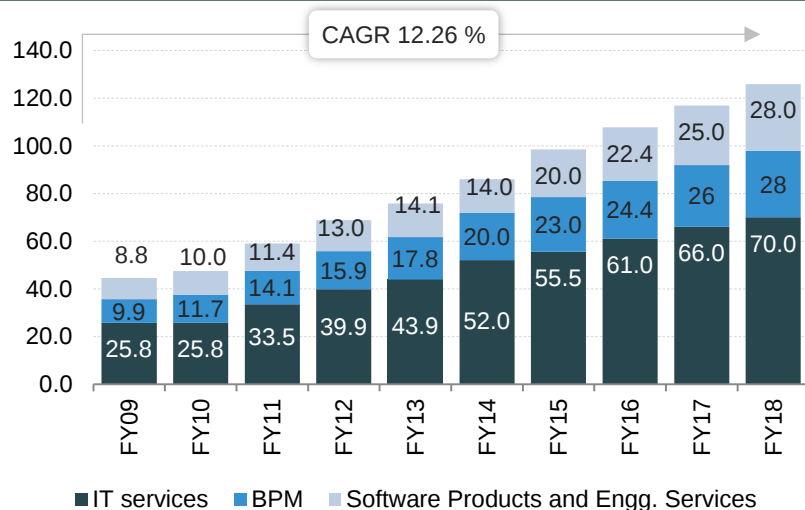


Note: E – estimate, *As per Gartner, ^Including Hardware, #CAGR is for total of domestic and export

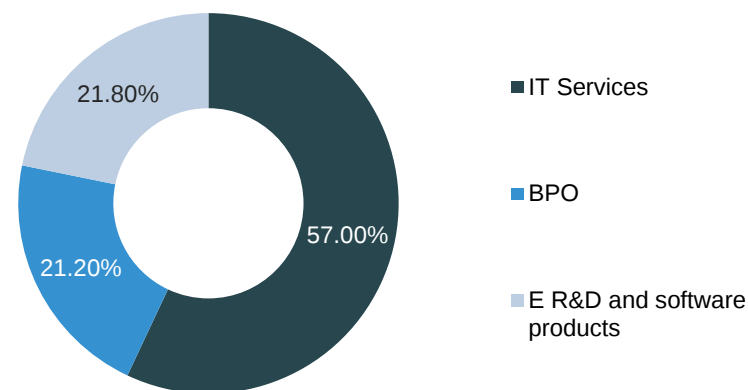
Source: NASSCOM, Gartner, Aranca Research

STRONG GROWTH IN IT & ITeS EXPORTS

Growth in export revenue (US\$ billion)



Sector-wise breakup of export revenue (FY18)



- Total exports from the IT-BPM sector (including hardware) were estimated to have been US\$ 126 billion during FY18; exports rose at a CAGR of 12.26 per cent during FY09–18.
- Export of IT services has been the major contributor, accounting for 57.00 per cent of total IT exports (including hardware) during FY18
- BPO and E R&D and software products exports accounted for 21.20 per cent and 21.80 per cent of total IT exports during FY18, respectively.
- Exports from the sector are expected to reach US\$ 135-137 billion in FY19.

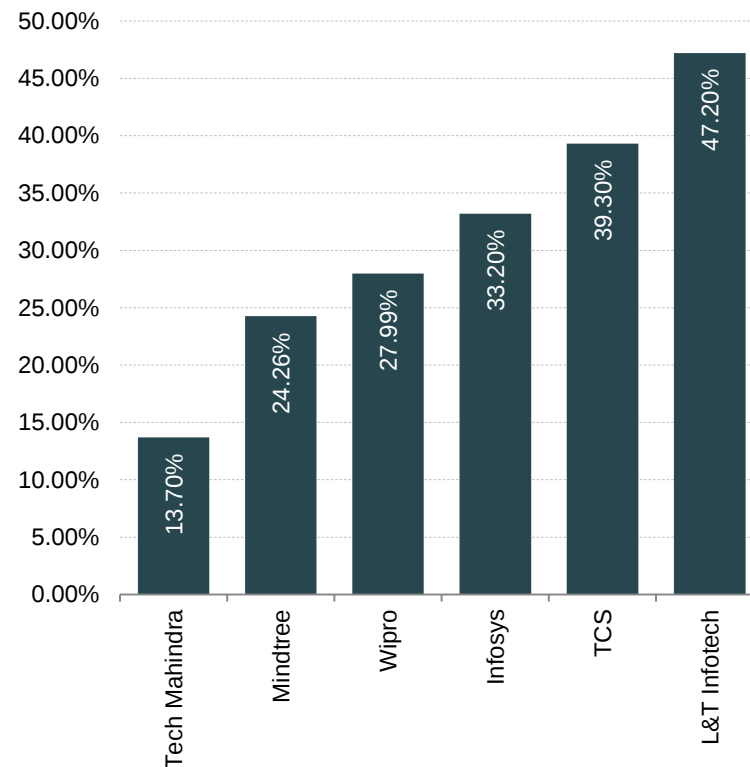
Note: E - estimated

Source: Nasscom, Make in India, IDC

BFSI - A KEY BUSINESS VERTICAL FOR IT-BPM INDUSTRY

- BFSI is a key business vertical for the IT-BPM industry. A major share of revenue of IT majors comes from the BFSI business vertical.
- Adoption of new technologies is expected to accelerate growth of the BFSI vertical. The need for undertaking investments in IT will also be required for gaining competitive advantage instead of solely for reducing operational costs.
- Revenue growth in the BFSI vertical stood at 10.3 per cent y-o-y in the first quarter of 2018-19.

Revenue share of IT majors from BFSI (FY18)



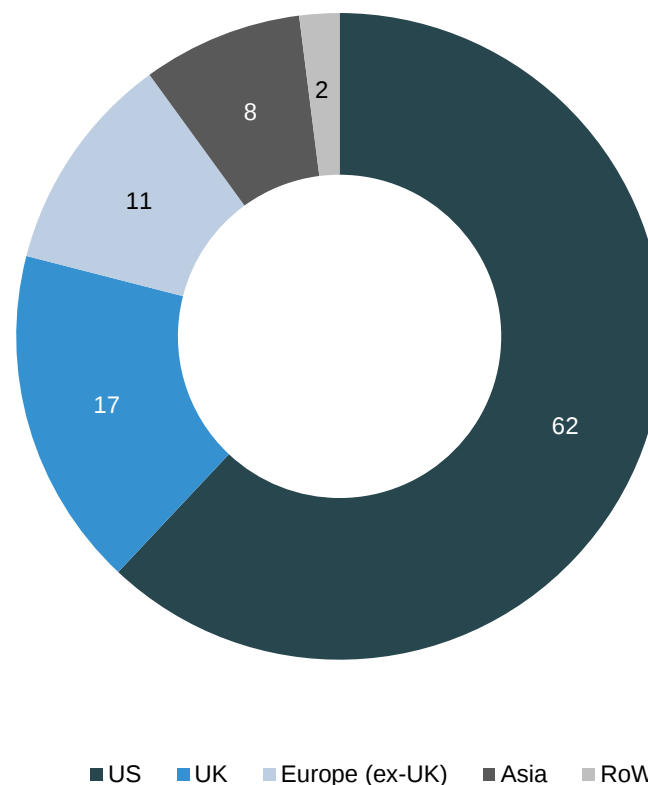
Note: BFSI - Banking, Financial Services and Insurance, The figures mentioned are for IT and BPM only and do not include engineering services and hardware exports

Source: Ministry of Electronics and IT Annual Report, Company Annual Reports, Company Financial Results

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 FY18.
- Non US-UK countries accounted for just 21 per cent of total Indian IT-BPM exports during FY18.
- As of FY18, US and UK are the leading customer markets with a combined share of nearly 80 per cent . However, there is growing demand from APAC, Latin America and Middle East Asia.
- 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 in 2017-18 (percentage)



Note: ROW is Rest Of the World, APAC is Asia Pacific

Source: Nasscom, Department of Electronics and IT Annual Report

IT-BPM SECTOR DOMINATED BY LARGE PLAYERS

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

Source: Nasscom

RECENT TRENDS AND STRATEGIES



NOTABLE TRENDS

Global delivery model

- Indian software product industry is expected to reach the mark of US\$ 100 billion by 2025. Indian companies have set up over 1,000 global delivery centres in about 80 countries over the world.

Leading sourcing destination

- India is a prominent sourcing destination across the world, accounting for approximately 55 per cent market share in the global services sourcing business, as of FY18.
- India acquired a share of around 38 per cent in the overall Business Process Management (BPM) sourcing market.

Rise of onshoring

- Fall in automation costs and rise of digital has led to higher onshoring by the industry.
- Onshore revenue of Indian IT industry* has grown from around 48 per cent in 2011-12 to 59 per cent in 2017-18.

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 US\$ 225 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

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

*Note: *Company financials of top listed companies - NASSCOM*

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.

Most lucrative sector for investments

- The computer software and hardware sector in India attracted cumulative Foreign Direct Investment (FDI) inflows worth US\$ 32.23 billion between April 2000 and June 2018, according to data released by the Department of Industrial Policy and Promotion (DIPP).

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

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 50000, 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

STRATEGIES ADOPTED

Movement to SMAC and 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

Fast-growing sectors within the BPM domain

- Knowledge services, data analytics, legal services, Business Process as a Service (BPaaS), cloud-based services

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

Expanding in Tier II and III cities and externally

- Companies are expanding their business to Tier II and III cities to have low cost advantage
- In October 2018, HCL Technologies laid the foundation stone for a new global IT development centre at Vijayawada. The facility will come up over 29.86 acres at an investment of Rs 700 crore (US\$ 99.74 million).
- Companies are expanding their business towards emerging economies of East Europe and Latin American countries

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

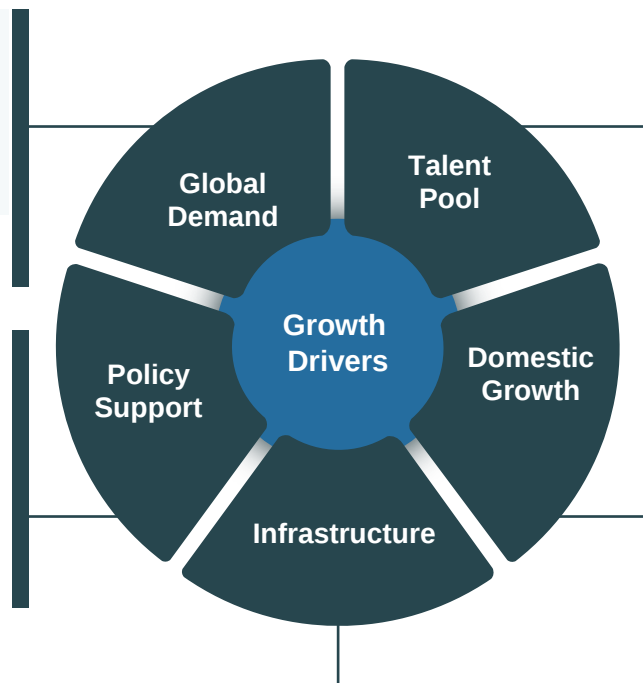
GROWTH DRIVERS AND OPPORTUNITIES



IT SECTOR TO BE DRIVEN BY STRONG DEMAND AND INDIAN EXPERTISE

- Global BPM spending estimated to rise and reach to US\$ 233 billion by 2020

- Tax holidays for STPI and SEZs
- More liberal system for raising capital, seed money and ease of doing business.
- As a part of Union Budget 2018-19, NITI Aayog is going to set up a national level programme that will enable efforts in AI* and will help in leveraging AI* technology for development works in the country.
- Government of India has identified Information Technology as one of the 12 champion service sectors for which an action plan is being developed. Also, the government has set up a Rs 5,000 crore (US\$ 745.82 million) fund for realising the potential of these champion service sectors.



- Nasscom has launched an online platform which is aimed at up-skilling over 2 million technology professionals and skilling another 2 million potential employees and students.
- Strong mix of young and experienced professionals

- 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

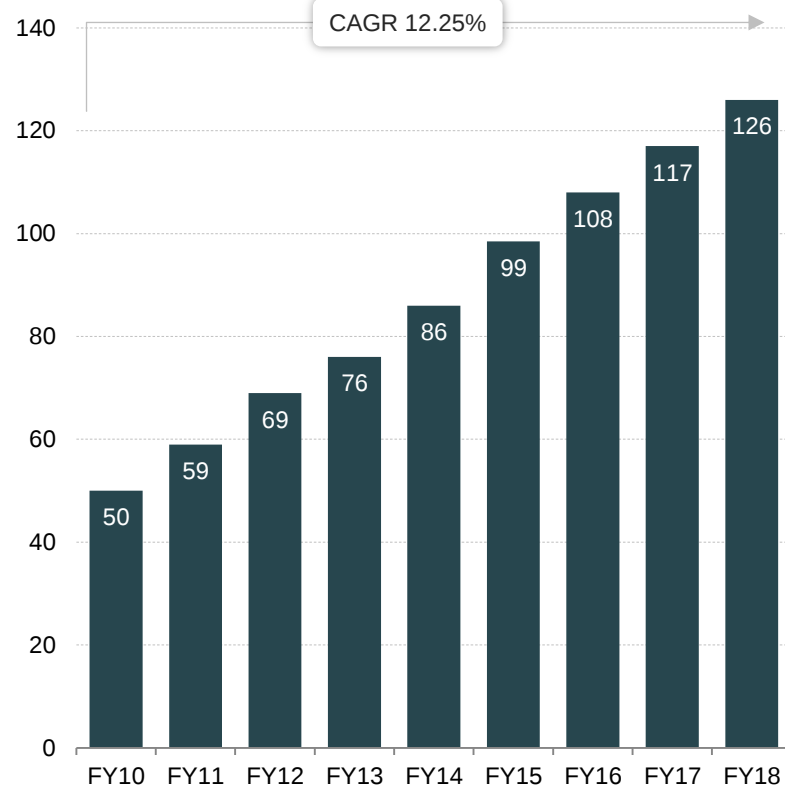
Note: STPI stands for Software Technology Park of India, SEZ stands for Special Economic Zone, ICT - Information and communications technology, IT-BPM – Information Technology Business Process Management, AI* - Artificial Intelligence

Source: Nasscom

EXPORTS TO REMAIN ROBUST AS GLOBAL IT INDUSTRY MAINTAINS GROWTH

- Export revenue from the industry has grown at a CAGR of 12.25% to US\$ 126 billion in FY18 from US\$ 50 billion in FY10.
- Exports are projected to grow 7-9 per cent y-o-y to US\$ 135-137 billion in 2018-19.

Export revenue from IT industry (US\$ billion)



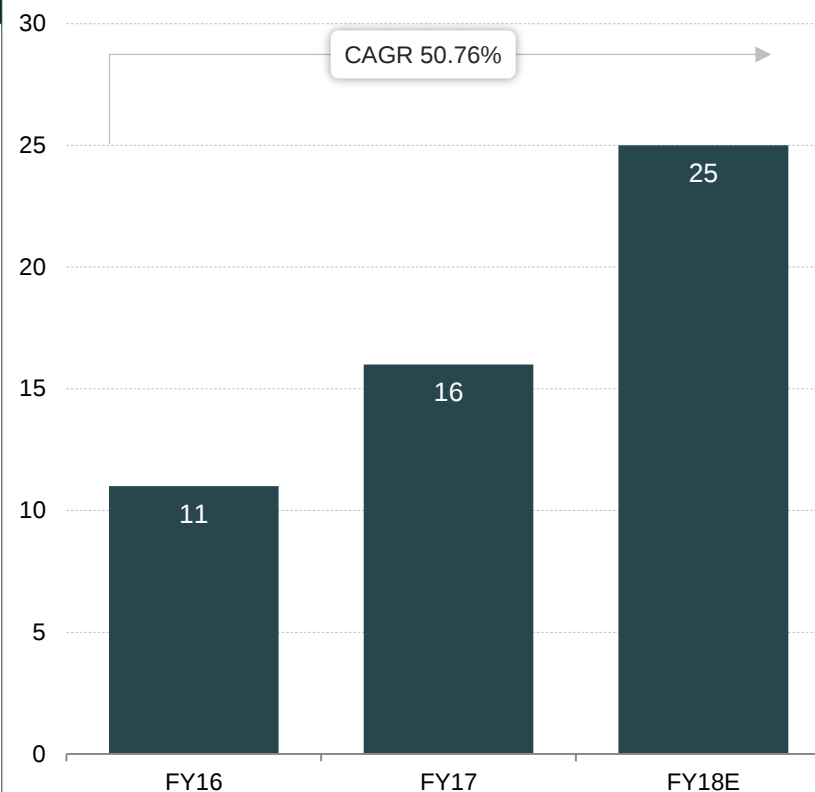
Note: E - Estimate

Source: Nasscom, Media Sources

DIGITAL EXPORTS TO BE A MAJOR GROWTH DRIVER

- Global digital spend is expected to increase from US\$ 180 billion in 2017 to US\$ 310 billion by 2020.
- India's IT industry is increasingly focusing on digital opportunities as digital is poised to be a major segment in the next few years. It is also currently the fastest growing segment, growing over 30 per cent annually.
- Export revenue from digital segment already forms about 20 per cent of the industry's total export revenue. The figure was estimated at US\$ 22-25 billion in FY18.
- Revenue from digital segment is expected to comprise 38 per cent of the forecasted US\$ 350 billion industry revenue by 2025.^
- India has become the digital capabilities hub of the world:
 - More than 8,100 firms offer digital solutions
 - Digitally skilled talent pool of 450,000-500,000
 - 75 per cent of global digital talent in India

Export revenue from Digital (US\$ billion)



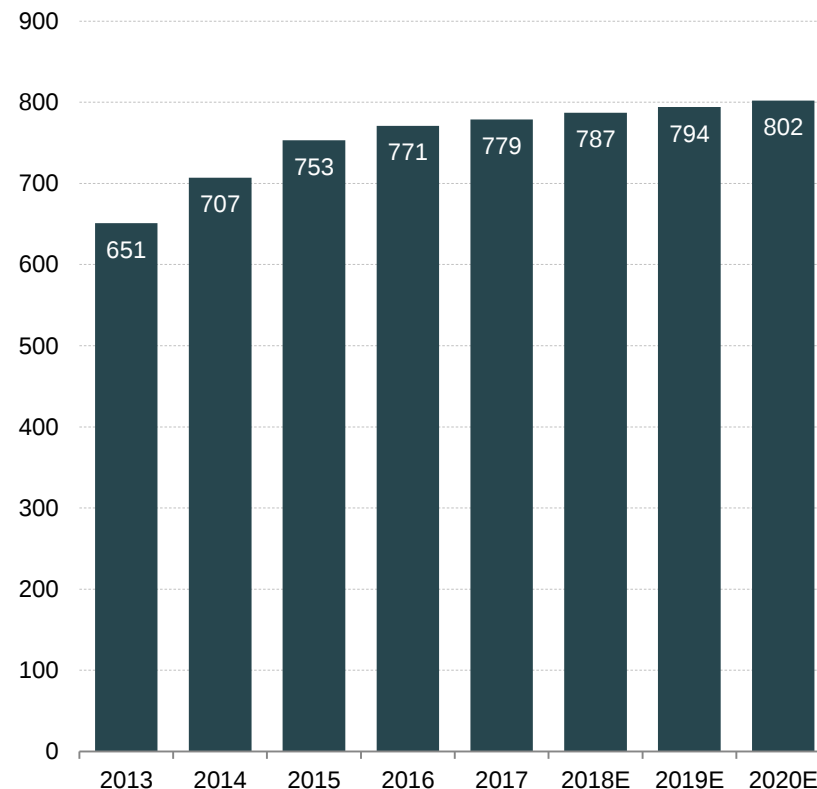
Note: ^According to Nasscom, E – Estimated, FY18 export figures are estimated between US\$ 22-25 billion by NASSCOM

Source: Nasscom, IDC, Media Sources

INDIAN TALENT POOL READY TO TAKE IT SECTOR TO THE NEXT LEVEL

- Availability of skilled English speaking workforce has been a major reason behind India's emergence as a global outsourcing hub.
- The number of engineering graduates has increased from 651,000 in 2013 to an estimated 779,000 in 2017 and is further expected to grow to 802,000 by 2020.
- Employment in the sector reached 3.97 million in 2017-18. An addition of around 105,000 was witnessed in FY18.
- India BPO promotion scheme was approved under Digital India programme. It aims to create employment opportunities for the youth and promote investments in the IT&ITeS industry. Under the scheme employment has already been created for more than 10,000 individuals.

Annual entry-level talent pool in India* (in 000s)



Note: *Refers to graduates with Bachelors degree in engineering (four-year degree course)

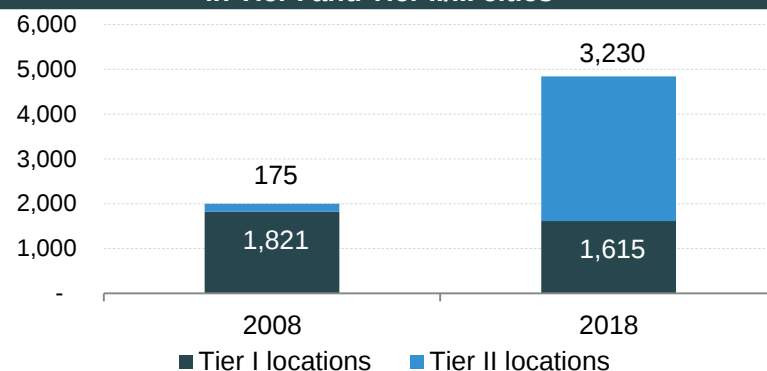
Source: Nasscom, Everest Group

SEZ'S TO DRIVE IT SECTOR; TIER II CITIES EMERGE AS NEW CENTERS

- IT-SEZs have been initiated with an aim to create zones that lead to infrastructural development, exports and employment
- As on 1st December 2017, there were 222 exporting SEZs across the country
- 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
- Software Technology Parks of India (STPI) has set up 57 centres across the country which provide single window clearance and infrastructure facilities. Under STP scheme, STP units can avail Excise Duty exemptions on procurement of indigenously manufactured goods.

Parameters	STPI	SEZ
Term	10 years	15 years
Fiscal benefits	100 per cent tax holiday on export profits - Exemption from excise duties and customs	100 per cent tax holiday on exports for first 5 years - Exemption from excise duties and customs
Location and size restrictions	- No location constraints 23 per cent STPI units in tier II and III cities	Restricted to prescribed zones with a minimum area of 25 acres

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

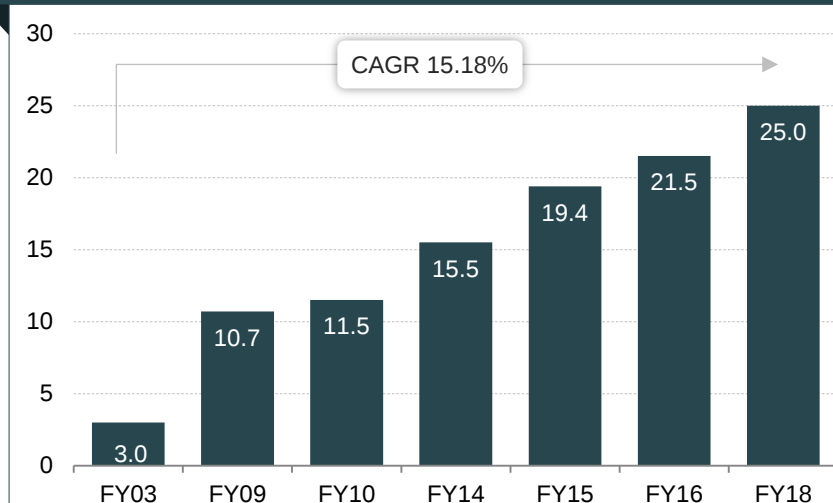


Note: SEZ – Special Economic Zone, STPI (Software Technology Parks of India)

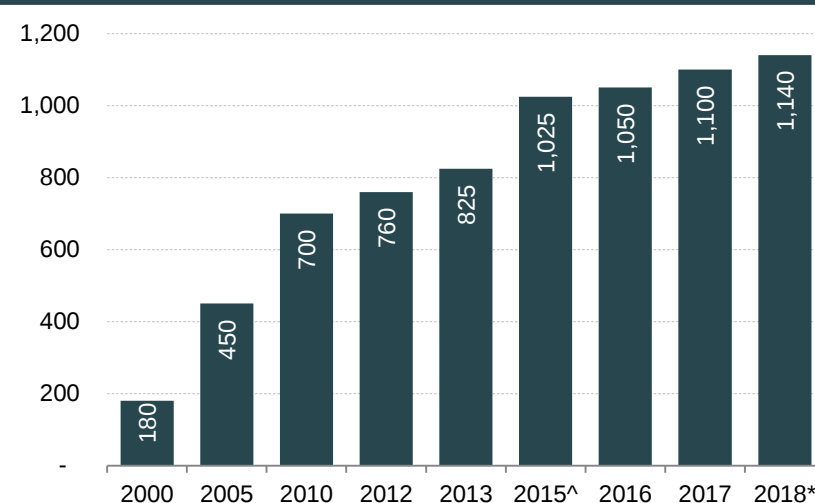
Source: EY, Nasscom

TREMENDOUS GROWTH OF GLOBAL IN-HOUSE CENTRES

Revenue of GIC's in India



Number of GIC's in India



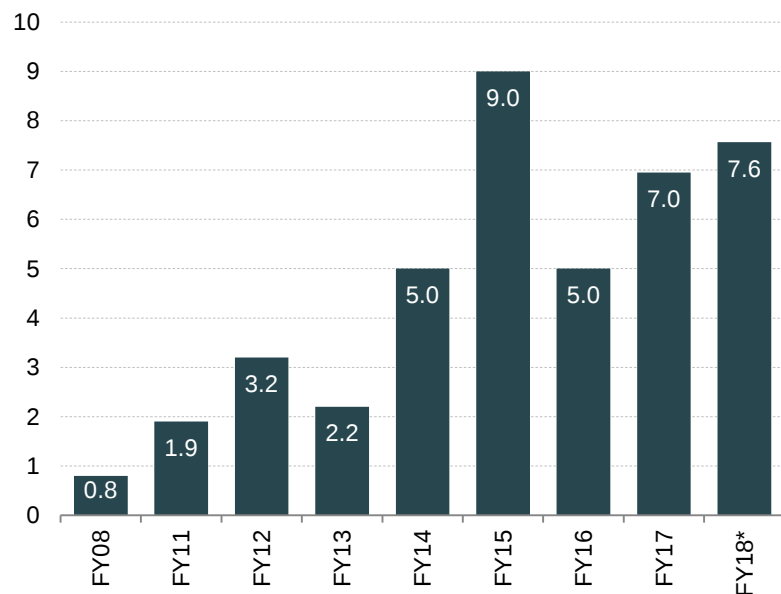
- Global In-House Centres (GIC), also known as captive centres, are one of the major growth drivers of the IT-BPM sector in India. They also operate in engineering services and software product development.
- As of March 2018, there were over 1,140 GICs operating out of India. Revenue of GICs of India has increased at a CAGR of 15.18 per cent between FY03-FY18 to touch US\$ 25.0 billion in FY18.
- The impact of the segment goes beyond revenue and employment, as it helps in developing India as a R&D hub and create an innovation ecosystem in the country
- Within the captive landscape, Engineering Research and Development/Software Product Development (ER&D/SPD) is the largest sub-segment

Note: 2018* - Data taken from NASSCOM Strategic Review 2018, ^As of end of financial year

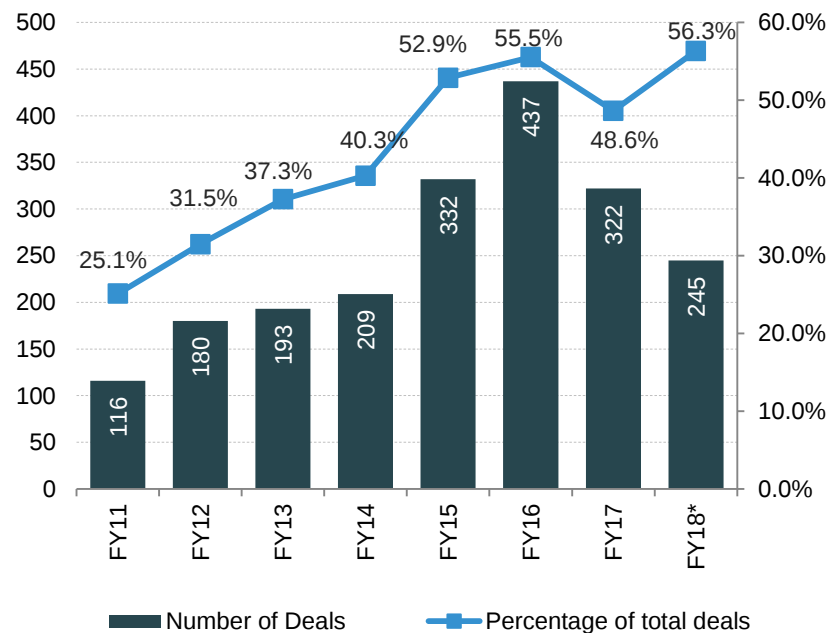
Source: Zinnov, Nasscom

IMPRESSIVE GROWTH PROSPECTS SUSTAIN PE AND VC INTEREST

PE investments in IT & ITes (US\$ billion)



Share of IT-BPM in PE investments



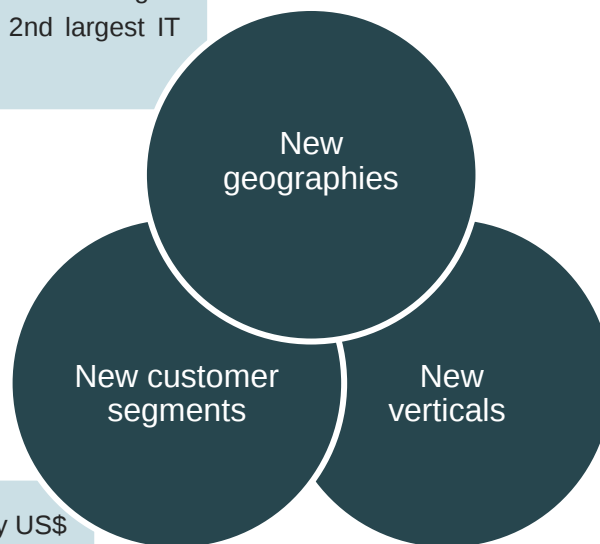
- Total PE investments in FY18* were observed to be US\$ 7.6 billion.
- During April-December 2017, 245 PE deals were undertaken in the IT-BPM sector.

Note: CAGR – Compound Annual Growth Rate, FY18* - Up to December 2017

Source: PWC Moneytree Report

NEWER GEOGRAPHIES AND VERTICALS PROVIDE HUGE OPPORTUNITIES

- BRIC nations, continental Europe, Canada and Japan have IT spending of approximately US\$ 380–420 billion
- Adoption of technology and outsourcing is expected to make Asia the 2nd largest IT market



- SMBs have IT spend of approximately US\$ 230–250 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 US\$ 190 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

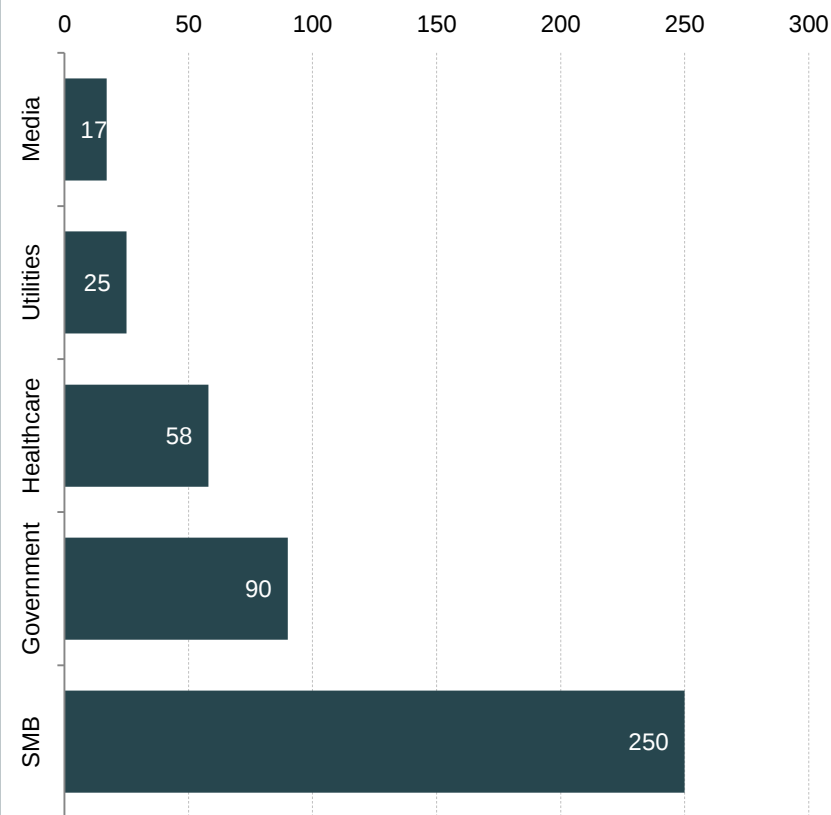
Note: SMB - Small and Medium Businesses

Source: International Data Corporation (IDC), Nasscom

EXPANSION OF FOCUS AREAS TO AID FUTURE GROWTH ... (1/2)

- 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
- RBI is executing a plan to reduce online transaction costs to encourage digital banking in India

Market size of other progressing verticals by 2020 (US\$ billion)



Note: SMB - Small and Medium Business

Source: Nasscom, Gartner

EXPANSION OF FOCUS AREAS TO AID FUTURE GROWTH ... (2/2)

- Emerging geographies would drive the next growth phase for IT firms in India
- BRIC would provide US\$ 380–420 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

Country	IT spend	India's penetration	Key segments
Canada	US\$ 63 billion	~1.5 per cent	Enterprise applications, cyber security, healthcare IT
Europe	US\$ 230 billion	<1.5 per cent	IT sourcing, BPM, IS outsourcing, CAD
Japan	US\$ 235 billion	<1 per cent	CRM, ERP, Salesforce automation, SI
Spain	US\$ 26 billion	<1.5 per cent	IT sourcing, SI
Mexico	US\$ 29 billion	~4 per cent	IT sourcing, BPM
Brazil	US\$ 47 billion	~2 per cent	Low level application management, artificial intelligence, R D
China	US\$ 105 billion	<1 per cent	Software outsourcing, R D
Australia	US\$ 48 billion	~4 per cent	Procurement outsourcing, infrastructure software and CAD

Source: Nasscom

KEY INDUSTRY ORGANISATIONS



Ministry of Electronics and Information Technology (MeitY)

Address: Electronics Niketan, 6, CGO Complex,
Lodhi Road, New Delhi - 110 003
Phone: 91 11 2436 9191
Fax: 91 11 2436 2626
E-mail: mljoffice@gov.in
Website: <http://meity.gov.in/>

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
Website: <https://www.nasscom.in/>

Electronics and Software Exports Promotion Council (ESC)

Address: 155, Okhla Phase III, Okhla Industrial Area, New Delhi, Delhi –
110 020
Phone: 91 11 4748 0000
E-mail: info@escindia.com
Website: <https://www.escindia.in/>

Software Technology Parks of India

Address: Ninth Floor, NDCC-II, Jai Singh Road (Opposite Jantar
Mantar), New Delhi – 110 001
Phone: 91 11 2343 8188
Fax: 91 11 2343 8173
Website: <https://www.stpi.in/>

USEFUL INFORMATION



- APAC: Asia Pacific
- BFSI: Banking, Financial Services and Insurance
- BPM: Business Process Outsourcing
- CAGR: Compounded Annual Growth Rate
- C U: Construction and 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
- SMB: Small and Medium Businesses
- STPI: Software Technology Parks of India
- T M: Telecom and Media
- T T: Travel and Transport
- US\$: US Dollar
- UT: Union Territory
- Wherever applicable, numbers have been rounded off to the nearest whole number

EXCHANGE RATES

Exchange Rates (Fiscal Year)

Year INR	INR Equivalent of one US\$
2004-05	44.95
2005-06	44.28
2006-07	45.29
2007-08	40.24
2008-09	45.91
2009-10	47.42
2010-11	45.58
2011-12	47.95
2012-13	54.45
2013-14	60.50
2014-15	61.15
2015-16	65.46
2016-17	67.09
2017-18	64.45
Q1 2018-19	67.04
Q2 2018-19	70.18

Exchange Rates (Calendar Year)

Year	INR Equivalent of one US\$
2005	44.11
2006	45.33
2007	41.29
2008	43.42
2009	48.35
2010	45.74
2011	46.67
2012	53.49
2013	58.63
2014	61.03
2015	64.15
2016	67.21
2017	65.12

Source: Reserve Bank of India, Average for the year

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