

IT & BPM



November 2021

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Executive summary

1. Large contribution to the Indian economy

- The IT industry accounted for 8% of India's GDP in 2020.
- India's IT industry is expected to contribute 10% to India's GDP by 2025.
- As of FY21, the IT industry employed 4.5 million people.

2. Strong growth opportunities

- According to National Association of Software and Service Companies (Nasscom), the Indian IT industry's revenue is estimated to reach US\$ 194 billion in FY21, an increase of 2.3% YoY.
- As per a survey by Amazon Web Services (2021), India is expected to have nine times more digitally skilled workers by 2025. This indicates that a total of ~ 3.9 billion digital skill trainings will be expected by 2025. As of 2021, digitally trained employees constitute 12% of the country's workforce.



3. Export and employment growth

- Exports from the Indian IT industry are expected to increase by 1.9% to reach US\$ 150 billion in FY21.
- The BPM sector in India currently employs >1.4 million people, while IT and BPM together have >4.5 million workers, as of FY21.

5. Accelerating demand for cloud and digital transformation

- This push towards cloud services has boosted hyper-scale data centre investments, with global investments estimated to exceed ~US\$ 200 billion annually by 2025. India is expected to gain a significant share in the global market, with the country's investment expected to hit ~US\$ 5 billion annually by 2025.

4. Most lucrative sector for investments

- The computer software and hardware sector in India attracted cumulative foreign direct investment (FDI) inflows worth US\$ 74.12 billion between April 2000 and June 2021. The sector ranked 2nd in FDI inflows as per the data released by Department for Promotion of Industry and Internal Trade (DPIIT).
- In FY21, computer software and hardware topped FDI investments, accounting for 44% share of the total FDI inflows of US\$ 81.72 billion.

*Note: BPM - Business Process Management, *- Includes data for TCS, Infosys, Wipro, HCL Tech*
Source: NASSCOM, DPIIT, News Articles

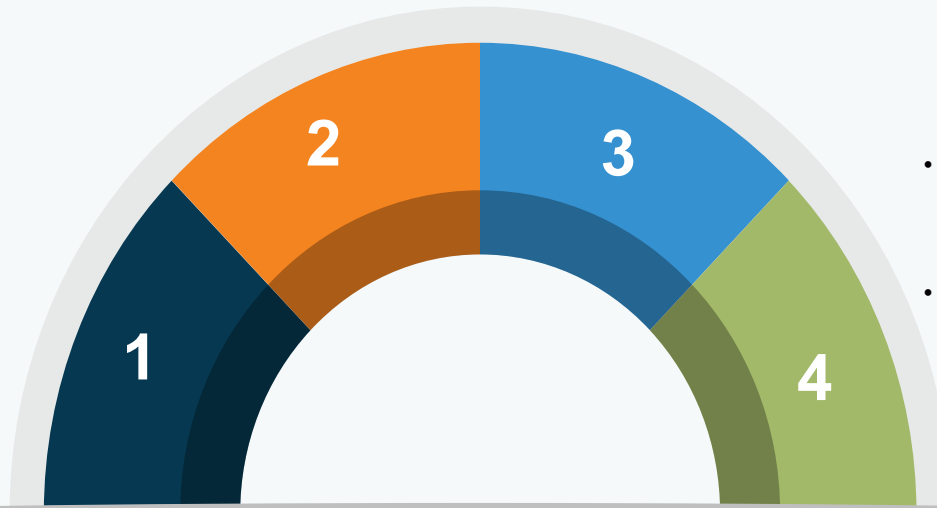


2. GROWING DEMAND

- Strong growth in demand for export from new verticals.
- In FY22, the top three Indian IT companies, TCS, Wipro and Infosys, are expected to offer ~1.05 lakh job opportunities, due to the increasing demand for talent and skill.
- India's IT and business services market is projected to reach US\$ 19.93 billion by 2025.
- According to Gartner estimates, IT spending in India is estimated to reach US\$ 93 billion in 2021 (7.3% YoY growth) and further increase to US\$ 98.5 billion in 2022.

1. COMPETITIVE ADVANTAGE

- In FY21, India ranked third worldwide with 608,000 cloud experts across all verticals, including technology.
- Japanese investments in the Indian IT sector grew 4X between 2016 and 2020. Investments stood at US\$ 9.2 billion in the review period.
- A preferred destination for IT & BPM in the world, it continues to be a leader in the global sourcing industry with 52% market share (as of FY20) in services exports from the country.



3. GLOBAL FOOTPRINTS

- Indian IT firms have delivery centres across the world.
- IT & BPM industry is well diversified across verticals such as BFSI, telecom and retail.
- Increasing strategic alliance between domestic and international players to deliver solutions across the globe.

4. POLICY SUPPORT

- In September 2021, the Indian government issued Goods and Services Tax (GST) Council's clarification on intermediaries for the IT & BPM industry, simplifying the refund process.
- In Union Budget 2021, the allocation for IT and telecom sector stood at Rs. 53,108 crore (US\$ 7.31 billion).
- The Ministry of Electronics and Information and Technology (MeitY) has approved 14 eligible applicants under the production linked incentive scheme (PLI) for IT hardware.

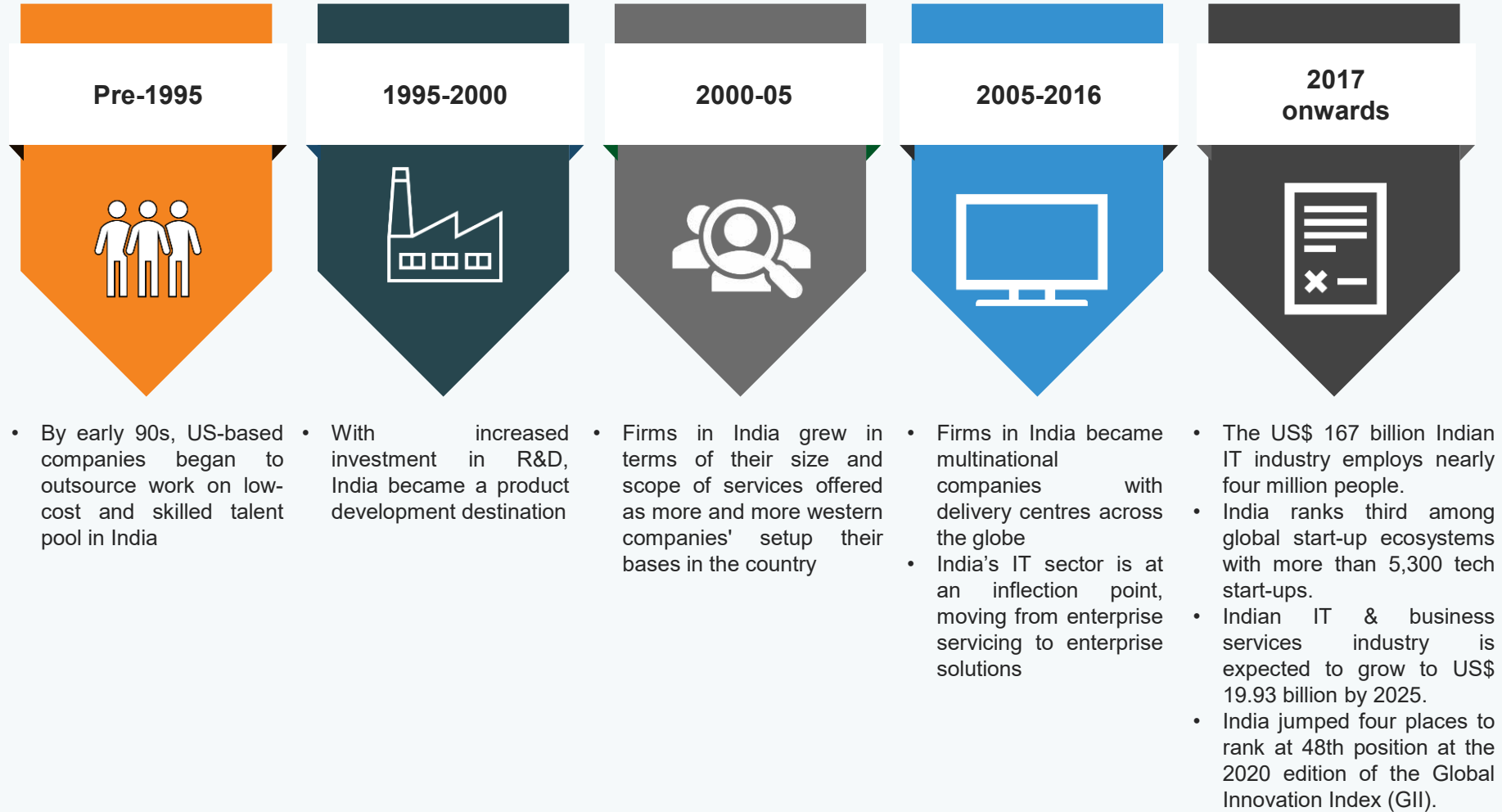
Note: SEZ stands for Special Economic Zone, BFSI stands for Banking, Financial Services and Insurance, E stands for Estimate, F stands for Forecast, AI - Artificial Intelligence*

Source : Nasscom, News sources

Market Overview



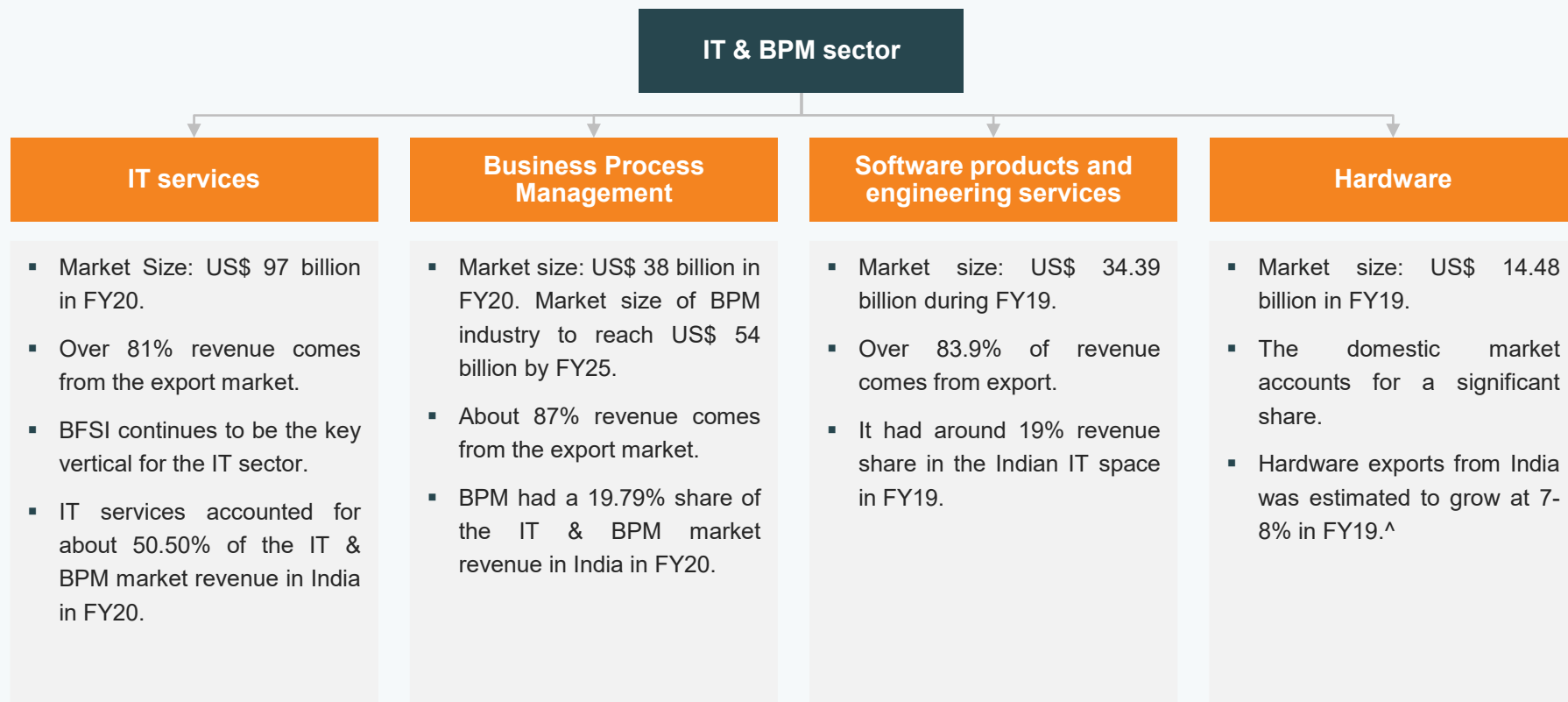
Evolution of the Indian IT sector



Note: SAFTA - South Asian Free Trade Area, ASEAN - Association of Southeast Asian Nations

Source: TechSci Research

Segments of India's IT sector



Notes: [^]As per Electronics and Computer Software Export Promotion Council

Source: NASSCOM, News sources

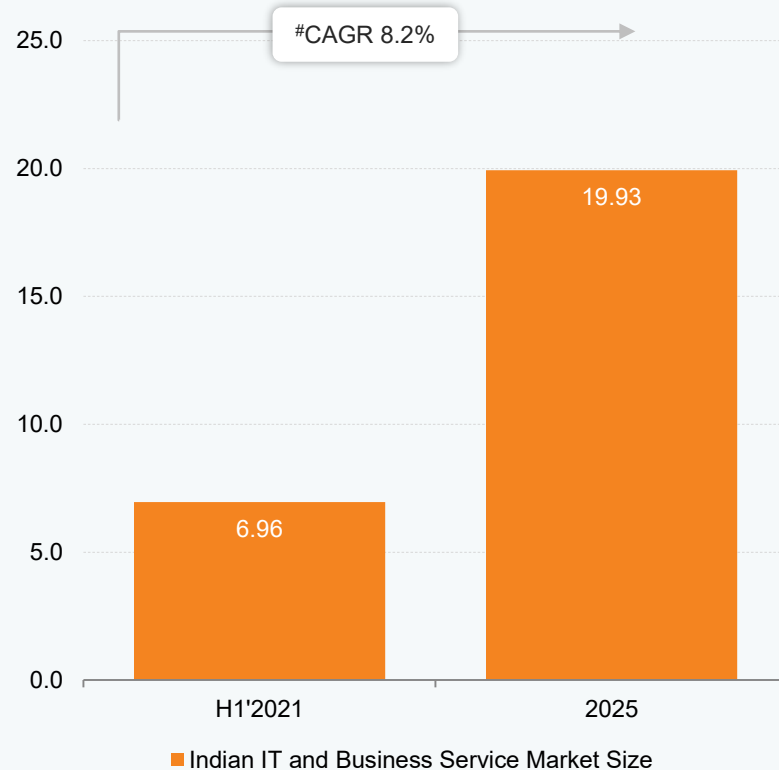
India's IT market size growing

- The IT & business service industry's revenue was estimated at ~US\$ 6.96 billion in the first half of 2021, an increase of 6.4% YoY.
- The sector is the largest employer within the private sector. In FY20, the industry added 1.38 lakh new employees, taking the total employment to 44.7 lakh.
- In FY21, the IT industry employed 4.5 million people.
- The export revenue of IT industry is estimated at US\$ 150 billion in FY21.
- In November 2021, Mr. Piyush Goyal, Minister of Commerce and Industry, Consumer Affairs, Food and Public Distribution and Textiles, lauded the Indian IT sector for excelling its competitive strength with zero government interference.
 - He further added that service exports from India has the potential to reach US\$ 1 trillion by 2030.
- Spending on information technology in India is expected to reach US\$ 144 billion in 2023.
- The cloud market in India is expected to grow three-fold to US\$ 7.1 billion by 2022 with the help of growing adoption of Big Data, analytics, artificial intelligence and Internet of Things (IoT) according to Cloud Next Wave of Growth in India report.
- India's digital economy is estimated to reach US\$ 1 trillion by 2025.
- Artificial Intelligence (AI) is expected to boost India's annual growth rate by 1.3% by 2035: NITI Aayog.
- The Karnataka government has signed three MoUs worth US\$ 13.4 million (Rs. 100.52 crore) to help the state's emerging technology sector.

Note: E - estimate, ^Including Hardware, #CAGR is between 2020 and 2025

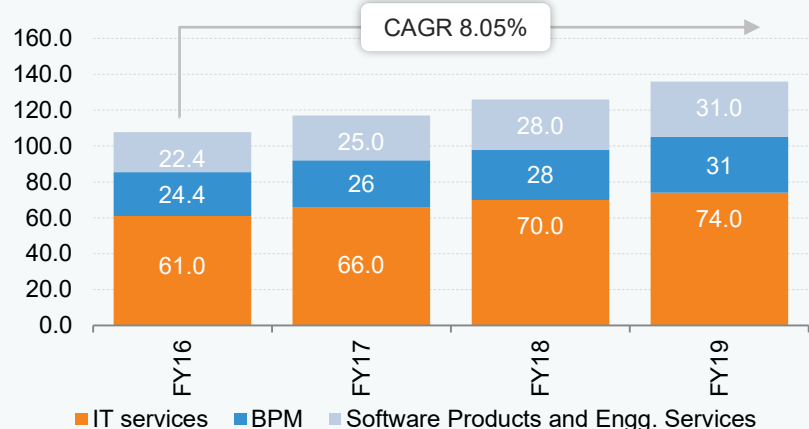
Source: NASSCOM, Gartner, News Articles

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

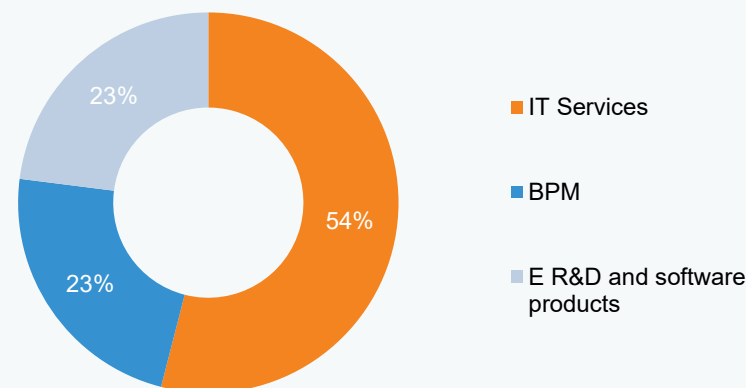


Strong growth in IT & BPM exports

Growth in export revenue (US\$ billion)



Sector-wise breakup of export revenue (FY19)



- India's software services exports* increased by 4% in FY21 compared with FY20 and are estimated at USD 133.7 billion during 2020-21.
- Export of IT services has been the major contributor, accounting for 54% of total IT export (including hardware) during FY19.
- BPM and Engineering and R&D (ER&D) and software products export accounted for 23% each to total IT exports during FY19. ER&D market is expected to grow to US\$ 42 billion by 2022 from US\$ 28 billion currently.
- According to STPI (Software Technology Park of India), software exports by the IT companies connected to it, stood at Rs. 1.20 lakh crore (US\$ 16.29 billion) in the first quarter of FY22.
- In August 2021, the Union Minister of State for Electronics and Information Technology, Mr. Rajeev Chandrasekhar, announced that the IT export target is set at US\$ 400 billion for March 2022. In addition, the central government plans to focus in areas, such as cybersecurity, hyper-scale computing, artificial intelligence and blockchain.

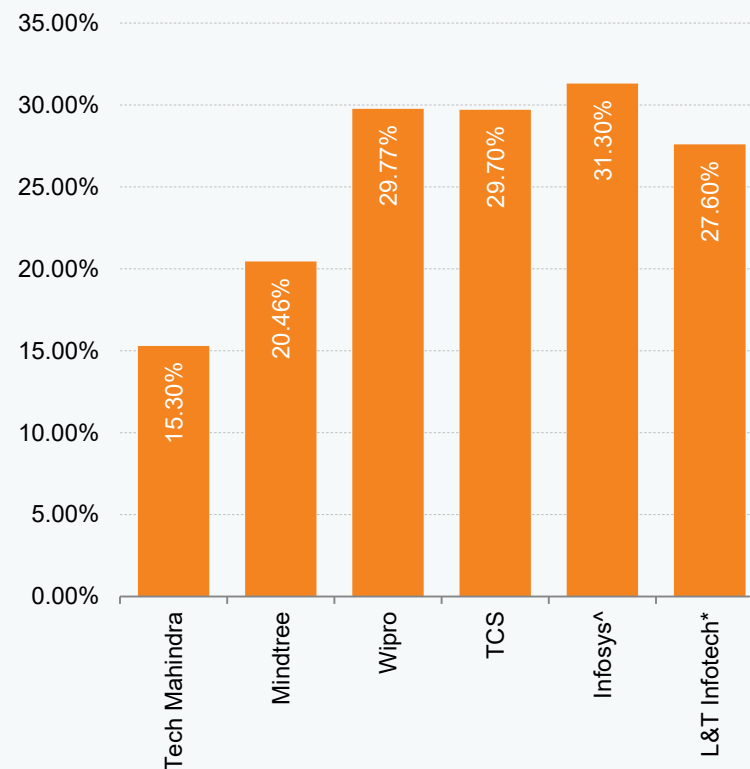
*Note: E – Estimated, * excluding exports through commercial presence*

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 investment in IT will also be required for gaining competitive advantage instead of solely reducing operational costs.
- In July 2020, Infosys won a multiyear deal worth US\$ 1.5 billion from investment management company—Vanguard.
- In May 2021, Infosys entered a partnership with Majesco, a New Jersey-based cloud insurance software solutions provider, to enable insurance companies to aid in digital adoption and transformation across the insurance value chain.
- In July 2021, TCS expanded its strategic partnership with Royal London, the largest mutual life insurance, pensions and investment company in the UK, to help the latter transform its pension platform estate and deliver market-leading services to members and customers.
- In August 2021, Tata Consultancy Services was adjudged a leader in the NelsonHall NEAT for CX Services in Banking, Financial Services and Insurance (BFSI).

Revenue share of IT majors from BFSI (FY20)



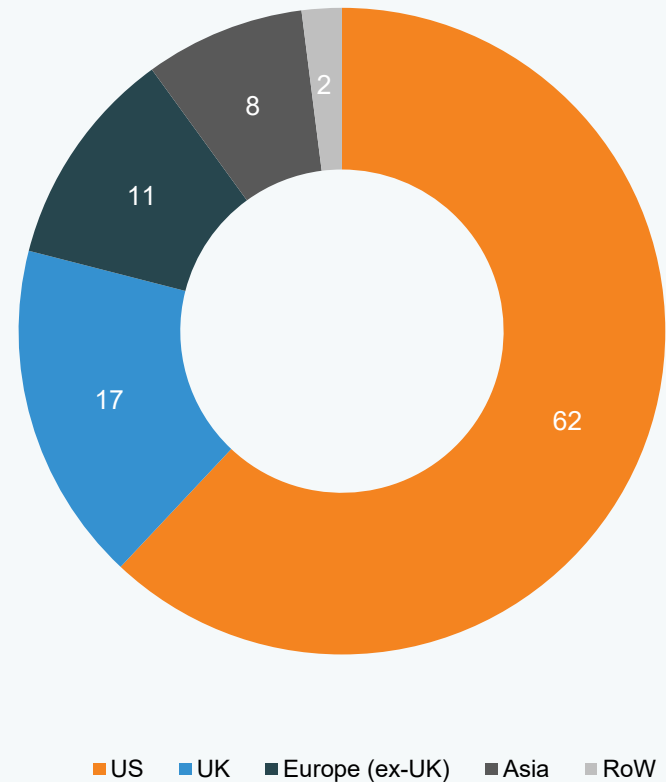
Note: BFSI - Banking, Financial Services and Insurance, mentioned figures are for IT and BPM only and do not include engineering services and hardware exports, [^]For the 'Financial Services' vertical, ^{}Sum of 'BFS' and 'Insurance' verticals*

Source: NASSCOM Quarterly Review, Ministry of Electronics and IT Annual Report, Company Financial Results and Factsheets, News Articles

With over 62% share, the US is a major importer of IT services

- US has traditionally been the biggest importer of Indian IT exports as it absorbed over 62% of Indian IT & BPM export during FY19.
- Non-US-UK countries accounted for just 21% of the total Indian IT & BPM export during FY19.
- As of FY19, US and UK were the leading customer markets with a combined share of nearly 80%. However, there is a growing demand from APAC, Latin America and Middle East Asia regions.
- Being the low-cost exporter of IT services, India is going to attract more markets in other regions in the same manner it tapped the US market.

Geographic breakup of export revenue in FY19 (%)



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

2019				
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... (1/3)

1

Global delivery model

- Indian software product industry is expected to reach US\$ 100 billion by 2025. Indian companies are focusing to invest internationally to expand global footprint and enhance their global delivery centres.
- In line with this, in February 2021, Tata Consultancy Services announced to recruit ~1,500 technology employees across the UK over the next year. The development would build capabilities for TCS to deliver efficiently to the UK customers.

2

India to become the data annotation and labelling hub

- The data annotation market in India stood at ~ US\$ 250 million in FY20, of which the US market contributed ~ 60% to the overall value. The market is expected to reach ~ US\$ 7 billion by 2030 due to accelerated domestic demand for AI.

3

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 reach US\$ 225 billion by 2020.
- In July 2021, Tata Technologies partnered with Stratasys, a 3D printing technology company, to provide advanced additive manufacturing technologies to the Indian manufacturing ecosystem.
- In June 2021, Infosys announced a collaboration with Archrock, Inc., a leading provider of natural gas compression services in the US, to integrate digital technologies and mobile tools for its field service technicians.
- In May 2021, HCL Technologies (HCL) announced a multi-year contract with Hitachi ABB Power Grids to build a new greenfield digital foundation as part of a global transformation programme. Through this engagement, HCL will help Hitachi ABB Power Grids establish a new, efficient and modern independent IT organisation.

Notable trends... (2/3)

4

Cloud Platform

- Key players are focussing on differentiated cloud products/platforms to avail a competitive advantage over other industry players.
- In July 2021, Wipro introduced Wipro FullStride Cloud Services and announced a plan to invest US\$ 1 billion in cloud technologies, acquisitions, partnerships and other capabilities, over the next three years.
- On January 13, 2021, TCS introduced a customised version of 'TCS Cloud Exponence' on Microsoft Azure, its flagship cloud management and orchestration platform, to offer smart managed services in hybrid cloud environments.

5

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% is contributed by 200 large and medium players.

6

Expansion

- In August 2021, Wipro launched @now Studio in Texas, to expand its digital and cyber defense centre.
- In July 2021, TCS announced a plan to expand its graduate training programme and employment opportunities in Malaysia.
- In July 2021, TCS announced plans to expand in Arizona, by investing >US\$ 300 million by 2026 and recruiting >220 employees by 2023.

7

Partnership

- In November 2021, Wipro partnered with TEOCO to build solutions for communication service providers (CSPs) to improve network automation, efficiency, flexibility and reliability.
- In August 2021, SAP India and Microsoft announced the introduction of TechSaksham, a collaborative skilling initiative aimed at enabling young women (from underprivileged regions) to pursue careers in technology. 62,000 women students will be trained in artificial intelligence (AI), cloud computing, web design and digital marketing as a result of this collaboration.
- In August 2021, Wacker Chemie AG, a German multinational chemical business, has inked a five-year, end-to-end IT transformation services contract with HCL Technologies (HCL) to build a modernised digital workplace and improve service quality.

Notable trends... (3/3)

8

Most lucrative sector for investments

- The computer software and hardware sector in India attracted cumulative FDI inflows worth US\$ 74.12 billion between April 2000 and June 2021, according to the data released by Department for Promotion of Industry and Internal Trade (DPIIT).

9

Deployment to a modern cloud

- In July 2021, TCS launched Jile 5.0, a key release of its Enterprise Agile, on-the-cloud services, planning and delivery tool that enables enterprises to meet the large-scale development needs of multiple distributed teams.
- In May 2021, IBM collaborated with 11 top-tier academic institutions, including IIT Kharagpur and the Indian Institute of Science (IISc), Bangalore, to enable 'over-the-cloud' access to its quantum systems to boost advanced training and research in the area of quantum computing.
- In April 2021, Tata Consultancy Services announced that Wavin, a Netherlands-based global innovative solutions provider for the building and infrastructure industries, has successfully implemented the TCS ERP on cloud platform to achieve expansion in new growth markets in Indonesia and India.

10

Government's Initiative

- In November 2021, the government launched Internet Exchange in Uttarakhand to enhance the quality of internet services in the state.
- In September 2021, the Ministry of Electronics and Information Technology (MeitY) organised a workshop under the theme of 'Connecting all Indians', to promote public and private stakeholders' interest in the country and expand internet access to remote areas.
- In September 2021, the Indian government launched the Meghalaya Enterprise Architecture Project (MeghEA), to boost service delivery and governance in the state by leveraging digital technologies, to make Meghalaya a high-income state by 2030.
- In September 2021, the Indian government launched Phase II of Visvesvaraya PhD Scheme to encourage research in 42 emerging technologies in Information Technology (IT), Electronics System Design & Manufacturing (ESDM) and Information Technology Enabled Services (ITES).

Strategies adopted

1. Movement to SMAC and digital space

- SMAC is taking significant leaps.
- Companies are getting into this field by offering big data services, which provides clients with better insights for future cases.
- In April 2021, Wipro announced the implementation of a digital experience platform for Bristol Water to modernize critical infrastructure.
- In February 2021, Yotta Infrastructure announced that by leveraging its state-of-the-art Yotta NM1 data centre at Navi Mumbai, Essar Capital Ltd., with investments worth ~US\$ 14 billion, has undertaken a large-scale digital transformation initiative.

2. M&A

- In May 2021, Infosys announced a definitive agreement to acquire GuideVision, a ServiceNow Elite Partner in Europe.
- In April 2021, Wipro signed an agreement to acquire Ampion, an Australia-based provider of quality engineering services, cyber security and DevOps.



3. Promotion of R&D

- Companies are 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.

5. 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, for example, Building Tomorrow's Enterprise by Infosys.
- Indian IT firms have started to adopt pricing strategies to compete with Global firms like IBM and Accenture.

4. Product launch

- In April 2021, Cyient launched INTELLICYIENT suite of Industry 4.0 solutions to enable digital transformation for various industries such as manufacturing, industrial, aerospace, automotive off-highway, infrastructure and mining & natural resources.
- In August 2021, TCS launched new Google Cloud Garages for their enterprise clientele.
- In July 2021, TCS launched Jile 5.0, a SaaS-based enterprise agile tool, with improved portfolio capabilities.

Growth Drivers and Opportunities



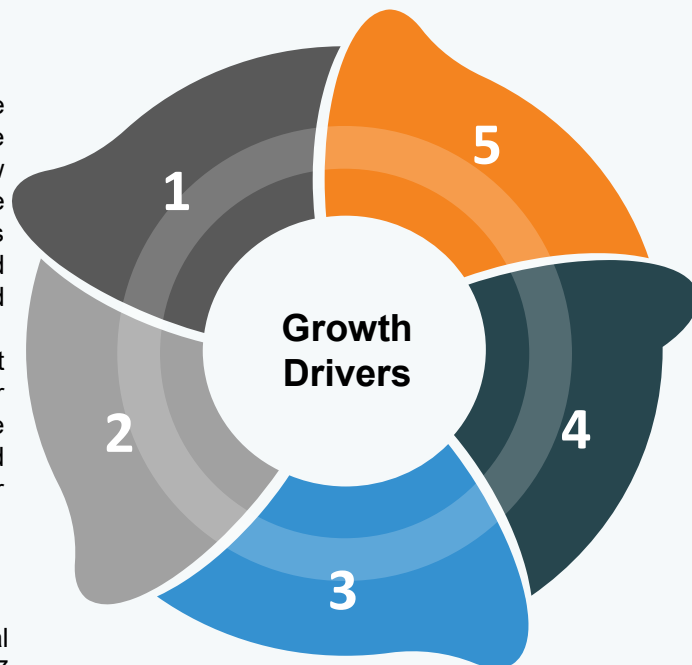
IT sector to be driven by strong demand and Indian expertise

1. Combat Cyber-security

- India's Ministry of Home Affairs and the National Critical Information Infrastructure Protection Centre are working on a new national strategy to strengthen the country's cybersecurity amid allegations that Chinese intrusions may have affected operations at a key stock exchange and supply of electricity in Mumbai.
- In September 2021, the Indian government announced a plan to build a cyber lab for the 'Online Capacity Building Programme on Crime Investigation, Cyber Law and Digital Forensics' to strengthen cyber security capabilities.

2. Talent pool

- NASSCOM has estimated that the digital talent pool in India is likely to cross 1.17 million in FY21, increase of 32% YoY.
- In October 2021, hiring activity in India increased by 43% YoY, driven by strong demand for technology professionals.
- As more companies undergo digital transformation, in-demand IT roles in 2021 will include positions focused on advanced technologies such as Internet of Things, artificial intelligence, augmented and virtual reality.



3. Public cloud market

- Public cloud adoption in India is projected to grow by ~30% YoY to reach US\$ 7.3 billion by 2022, driven by rising demand from companies for IT modernization.

5. Policy support

- Tax holidays for STPI and SEZs.
- More liberal system for raising capital, seed money and ease of doing business.
- Government of India announced plans to launch a national programme on AI* and setting up of a National AI* portal.
- In Budget 2021, the government has allocated Rs. 53,108 crore (US\$ 7.31 billion) to the IT and telecom sector.

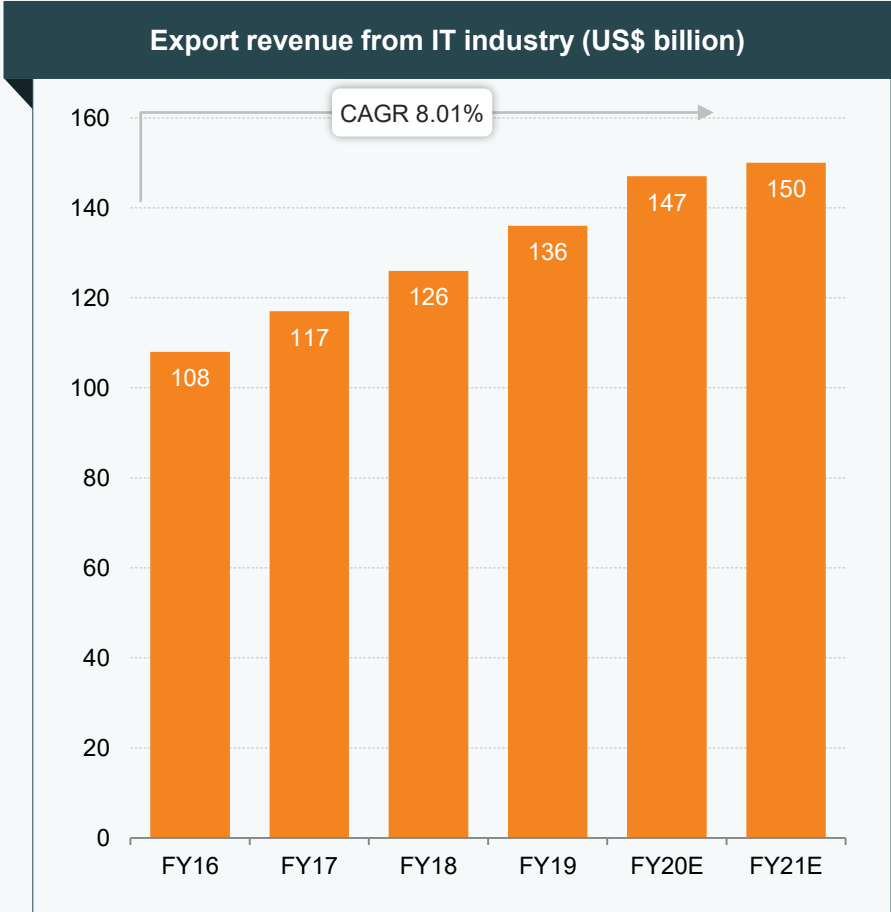
4. Infrastructure

- Infrastructure software revenue in India is forecasted to reach US\$ 4.6 billion in 2021, an increase of 12% YoY, driven by rising demand for security-as-a-service offerings and detection and response capabilities.

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, News Articles

Exports to remain robust as global IT industry maintains growth

- Exports from the Indian IT industry are expected to increase by 1.9% to reach US\$ 150 billion in FY21.
- Export revenue from the industry grew at a CAGR of 8.01% to US\$ 147 billion in FY20E from US\$ 108 billion in FY16.
- In FY20, IT & BPM industry export revenue crossed US\$ 147 billion at a growth of 8.1%.
- In FY19, export from IT and IT Enabled Services (ITeS) registered a growth of 17% to reach Rs. 1.09 lakh crore (US\$ 15.63 billion) in Telangana.

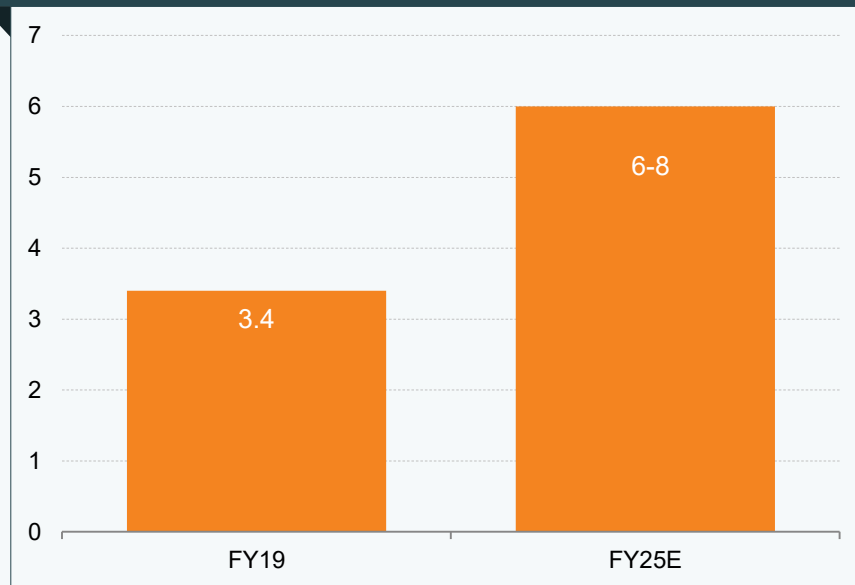


Note: E - Estimate
Source: Nasscom, Media Sources

Accelerating demand for cloud to be a major growth driver

- With digital transformation accelerating across sectors, the pandemic has driven demand for cloud services worldwide, and the Internet has become a lifeline for people both for work and entertainment. This move towards cloud services has accelerated hyper-scale data centre investments, with global investments estimated to exceed ~US\$ 200 billion per year by 2025.
- The demand for cloud technology professionals is expected to reach ~2 million by 2025.
- The cumulative investments in data centres in India are estimated to reach ~US\$ 28 billion between 2019 and 2025, at a CAGR of ~5% between 2019 and 2025, 2x faster than the global average.
- The COVID-19 pandemic has accelerated the demand for third-party data centre services in India.
- The key data centre locations are Mumbai, Chennai, Bangalore, Hyderabad and Delhi (NCR).
- According to a survey conducted by Infosys in May 2021, the increased adoption of cloud technologies represents an opportunity worth >US\$ 400 billion in additional annual profits across industries such as financial services, insurance, manufacturing, healthcare and retail.
- According to the research findings commissioned by Amazon Web Services (AWS), Indian enterprises and public sector organisations (that migrated from on-premises data centres to cloud infrastructure) can expect to lower their energy and carbon footprint by over 80%.

India data centre market investment (US\$ billion)



- In July 2021, Ascendas Property Fund Trustee Pte. Ltd, the trustee-manager of Ascendas India Trust (a-iTrust), announced to build data centres in India and invest ~Rs. 1,200 crore (US\$ 160.67 million) to develop phase one of its first data centre campus in the country.
- In July 2021, Wipro announced plans to invest US\$ 1 billion over the next three years to expand its cloud technology capabilities through acquisitions and collaborations.

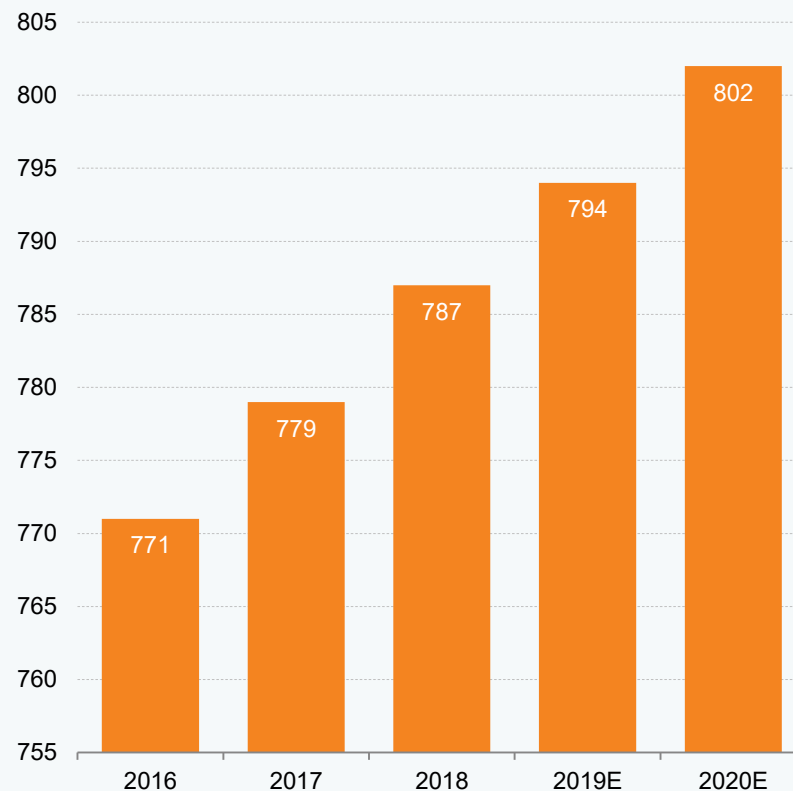
Note: ^According to Nasscom, E - Estimated

Source: Nasscom, IDC, Media Sources

Indian talent pool ready to take IT sector to the next level

- The BPM sector in India currently employs >1.4 million people, while IT and BPM together have >4.5 million workers, as of FY21.
- The industry continues to be a net hirer of skilled talent, adding 138,000 people in FY21, and comprises robust hiring plans for FY22, with the top 5 Indian IT companies planning to add >96,000 employees.
- 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 & BPM industry. Under the scheme, employment has already been created for more than 10,000 individuals.
- For FY22, the following announcements were made by IT companies:
 - In August 2021, Startek, a business process management company, announced a plan to increase its minority stake in CSS Corp to reach a wider market. It also announced a plan to recruit >2,000 employees in India, in FY22.
 - Infosys plans to employ 35,000 freshers, up from 21,000 in FY21.
 - Wipro plans to hire ~12,000 people on campus, up 33% from the previous year.
 - HCL Tech expects to hire 20,000-22,000 people, up 50% from 14,600 in FY21.
 - TCS plans to recruit 40,000 graduates, equal to the number hired in FY21.

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



*Note: *Refers to graduates with Bachelors degree in engineering (four-year degree course), E- estimated, F- forecasted*

Source: Nasscom, Everest Group

SEZs to drive IT sector; tier II cities emerge as new centres

- IT-SEZs have been initiated with an aim to create zones that lead to infrastructural development, exports and employment
- As of February 2020, there were 421 approved SEZs across the country, and of these, 276 are from IT & ITeS and 145 are exporting SEZs.
- 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 to provide single window clearance and infrastructure facilities. STPI units can avail Excise Duty exemptions on procurement of indigenously manufactured goods.
- In October 2021, STPI FinBlue in Chennai selected 20 start-ups from the FinTech domain including trading, banking and lending to explore cross-border collaboration. It has signed an MoU with ASEAN Financial Innovation Network Ltd.
- In October 2021, the STPI and Society for Innovation & Entrepreneurship, IIT Bombay, signed an MoU to strengthen the start-up ecosystem by leveraging the latter's expertise and knowledge.

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

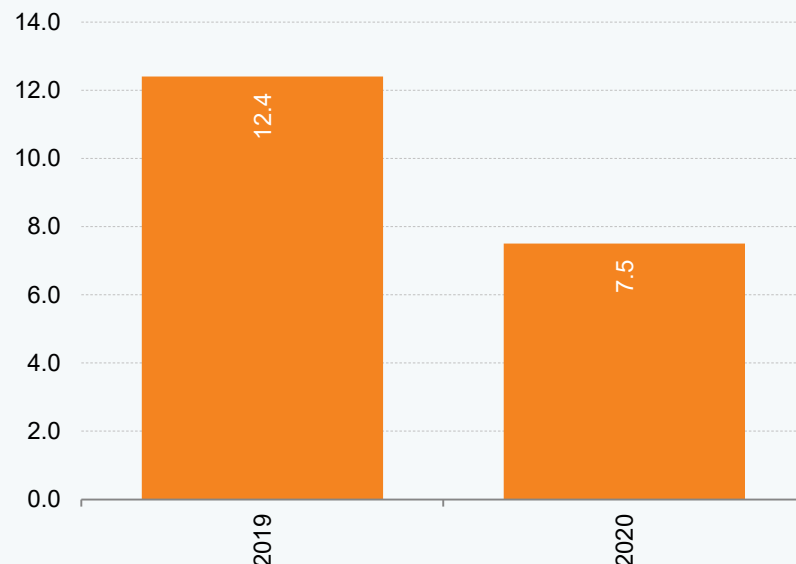
Note: SEZ - Special Economic Zone, STPI (Software Technology Parks of India)

Source: EY, Nasscom

Impressive growth prospects sustain PE and VC interest

- IT & BPM is the second leading sector in receipt of private equity (PE) investments in India.
- In 2020, PE investments in the sector stood at US\$ 7.5 billion.
- IT & BPM led the venture capital (VC) investment with 380 deals in in 2020, contributing 71% to the total deal count.
- Baring Private Equity Asia (BPEA) is going to acquire a 30% stake in NIIT technologies Ltd. for Rs. 2,627 crore (US\$ 375.88 million).
- TCS has made significant investments in building intellectual property in the digital assurance domain.
- In May 2020, SirionLabs, a software-as-a-service (SaaS) provider, raised US\$ 44 million as part of its Series C round led by Tiger Global and Avatar Growth Capital.
- In June 2020, Postman, an application programme interface (API) development platform, raised US\$ 150 million in a Series C investment round led by US-based venture capital fund Insight Partners.
- On July 14, 2020, Google announced its plans to invest US\$ 10 billion in India over the next five to seven years to help accelerate the adoption of digital technologies in the country.

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



Note: Data for first quarter of both years has been calculated by deducting Q2 investments from H1 investments, LHS - Left Hand Side axis, RHS - Right Hand Side axis

Source: The Indian Private Equity and Venture Capital Association

Newer geographies and verticals provide huge opportunities

1. New vertical

Non-linear growth due to platforms, products and automation
Emerging verticals (retail, healthcare, utilities) are driving growth

2. New geographies

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 second largest IT market by 2023.

3. Legacy modernization

As per TCS Survey Results (February 2021), >70% CXOs of global companies consider mainframe or legacy modernisation a strategic business priority for the next three years (FY21-FY23).

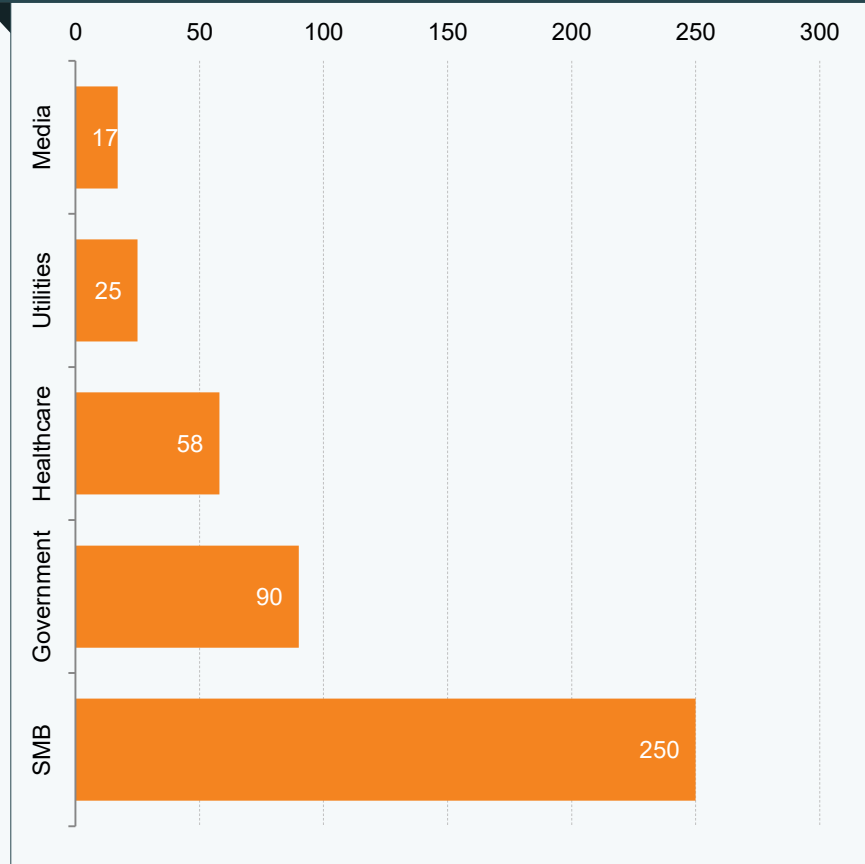
Note: SMB - Small and Medium Businesses

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.
- In 2021, 20+ public digital platforms are expected to emerge in India, to promote innovation and form a unique differentiation for the country.
- 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.
- The rollout of fifth generation (5G) wireless technology by telecommunication companies is expected to bring at least US\$ 10 billion global business to Indian IT firms by 2019-25.

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 phase of growth 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%	Enterprise applications, cyber security, healthcare IT
Europe	US\$ 230 billion	<1.5%	IT sourcing, BPM, IS outsourcing, CAD
Japan	US\$ 235 billion	<1%	CRM, ERP, Salesforce automation, SI
Spain	US\$ 26 billion	<1.5%	IT sourcing, SI
Mexico	US\$ 29 billion	~4%	IT sourcing, BPM
Brazil	US\$ 47 billion	~2%	Low level application management, artificial intelligence, R D
China	US\$ 105 billion	<1%	Software outsourcing, R&D
Australia	US\$ 48 billion	~4%	Procurement outsourcing, infrastructure software and CAD

Source: Nasscom

Key Industry Contacts



Key Industry Contacts

	Agency	Contact Information
 Ministry of Electronics and Information Technology Government of India	Ministry of Electronics and Information Technology (MeitY)	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: www.meity.gov.in
	Electronics and Software Exports Promotion Council (ESC)	155, Okhla Phase III, Okhla Industrial Area, New Delhi, Delhi - 110 020 Phone: 91 11 4748 0000 E-mail: info@escindia.com Website: www.escindia.in/
	National Association of Software and Services Companies (NASSCOM)	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: www.nasscom.in
	Software Technology Parks of India	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: www.stpi.in



Glossary

- 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
- IT & ITeS: Information Technology-Information Technology Enabled Services
- NAC: Nasscom Assessment of Competence
- RoI: Return on Investment
- ROW: Rest of the World
- Rs.: Indian Rupee
- 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	Rs. 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
2018-19	69.89
2019-20	70.49
2020-21	73.20

Exchange Rates (Calendar Year)

Year	Rs. 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
2018	68.36
2019	69.89
2020	74.18
2021*	74.84

Note: As of November 2021

Source: Reserve Bank of India, Average for the year

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