India Avenue
Investment Management



Indian Technology Sector

Research Note

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Introduction

Technology is fundamentally transforming businesses in every industry around the world. Advanced software technologies are fuelling the rapid digitization of business processes and information, disrupting traditional business models. For organisations, from an IT perspective, this translates to keeping existing legacy systems relevant, enabling legacy systems for mobile and sensor access, extracting value out of digitized data, harnessing the efficiency of cloud computing while optimizing the cost of building and running technology systems.

The rapid pace at which technology is changing are driving businesses to rely on third parties to realise their IT transformation. The increasing need for highly skilled technology professionals and reluctance on part of organisations to expand their internal IT departments is increasing the reliance of organisations on their outsourcing service providers. Organisations are increasingly outsourcing IT solutions to offshore technology service providers due to lower total cost of ownership of IT infrastructure, lower labour costs, improved quality and innovation and faster delivery of technology solutions. India has been one of the main beneficiaries of this offshore outsourcing trend enabled by the availability of a large English speaking pool of IT professionals. High quality global delivery model, proven execution capability to provide comprehensive end to end solutions and service clients across industries at significant cost benefits has contributed to the strong growth of IT and IT enabled services in India.

Evolution of Indian IT and IT enabled services Industry

The Indian IT and IT enabled services industry has grown from approximately USD 1 billion in the 1980's to USD 143 billion industry in fiscal year 2016. And in this journey, it has transformed itself from a back office service provider to a partner in business transformation. The table below shows the evolution of the Indian IT and IT enabled services industry over the past four decades in terms of various metrics:

Exhibit 1: Indian IT and IT enabled services industry

	1980-90	1990-2000	2000-2010	2010-2015
Revenue (USD Bn)	1	8	78	143
Employees (Mn)	0.06	0.34	2.3	3.7
No. of Firms	<1,000	2,000	12,000	>16,000
GDP Share	1.00%	1.80%	6.10%	9.30%
Exports Share	<5%	10.50%	26%	45%
Global sourcing Share	-	-	47%	56%

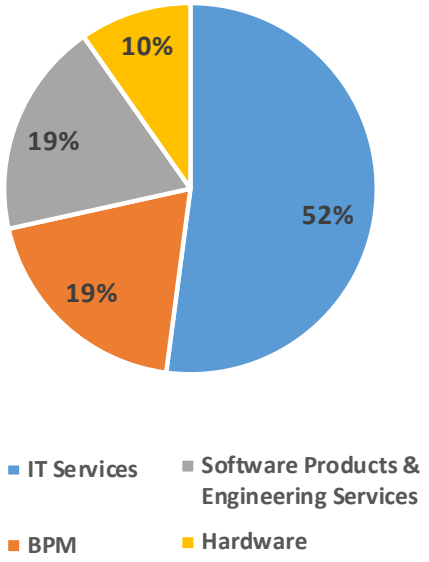
Value Addition	Cost Arbitrage	Collaboration	Value Addition	Enabling the smart Enterprise
	• Low end support & development • Time & material pricing (T&M)	• Standardisation& productivity improvement • Non-critical functions • Project based • Fixed cost, T&M	• End to end services • Non-linear growth • Strategic partnerships • Pay as you use	• Bimodal IT • Digital BU • Automation platforms • IoT, smart tech, innovation • Outcome based risk reward • Start-up ecosystem

Source: Nasscom

The Indian IT and IT enabled services industry is divided into four major segments – IT services, Business Process Management (BPM), software products and engineering services and hardware. The table below shows the revenues for each of the above segments

Exhibit 2: Segmental Revenue (USD Bn)

Segment	FY 2014	FY 2015	FY 2016
IT Services	61	69	75
BPM	24	26	28
Software Products and Engineering services	21	24	27
Hardware	13	14	14
Total IT-BPM	119	132	143
Export	73%	74%	76%
e-Commerce & Mobile App	10	14	17



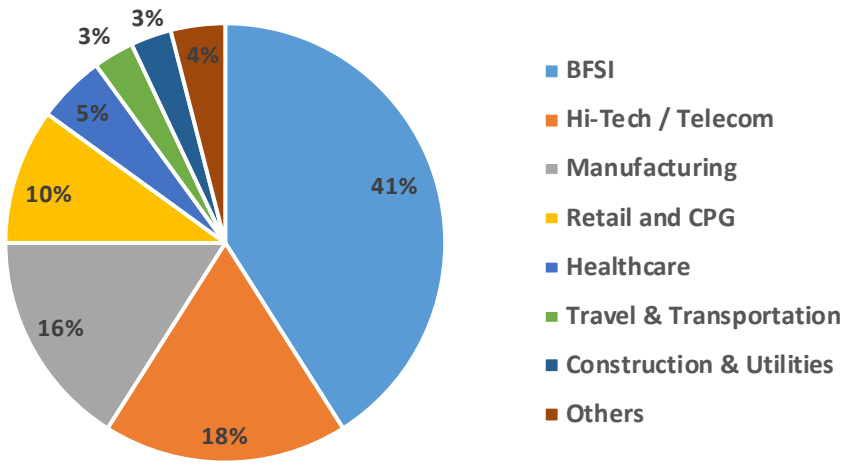
Source: Nasscom

IT services and BPM dominate with a 71% share of the total revenues. IT services provided by Indian companies have transitioned from providing cost arbitrage to managing IT from a business perspective. Services are now more closely aligned and customized to the needs of individual customers in every industry and focused on providing business outcomes. Digitization and automation has enabled IT services companies to provide strategic and transformational solutions. Business process management companies in India leverage global talent pools to manage the outsourced core business processes of their clients. The BPM sector is being driven by greater automation, expanding omni-channel presence and big data analytics. Software products and engineering services which enable automation of business processes are driven by trends around internet of things(IoT) / connected devices and customers demand for disruptive innovations. Overall digital solutions around social media, mobile, analytics and cloud (SMAC) – upgrading legacy systems to be SMAC enabled, greater demand for ERP, CRM, mobility and user experience technologies is driving healthy growth in Indian IT services.

Engagement with global businesses:

Against the current weak macroeconomic backdrop, large global corporations are using technology to fend off business model challenges, establish competitive differentiation, become more efficient, show revenue and earnings growth and stay compliant in a shifting regulatory landscape. With early digital technology adoption projects delivering better than anticipated outcomes, global organisations have rolled out more ambitious digital re-adoption programmes. Indian IT-BPM companies with proven global delivery models are engaged with these global corporations as partners for delivering value by providing strategic and transformational solutions. These business solutions are provided to global corporations across a range of industry verticals including banking, financial services, insurance, retail and consumer packaged goods, telecom, media & entertainment, manufacturing, life sciences & healthcare, energy, resources & utilities, travel, transportation & hospitality and various government departments. The chart below shows the estimated contribution of the various sectors to Indian IT-BPM exports for fiscal year 2016:

Exhibit 3: Indian IT-BPM sector wise exports for FY 2016

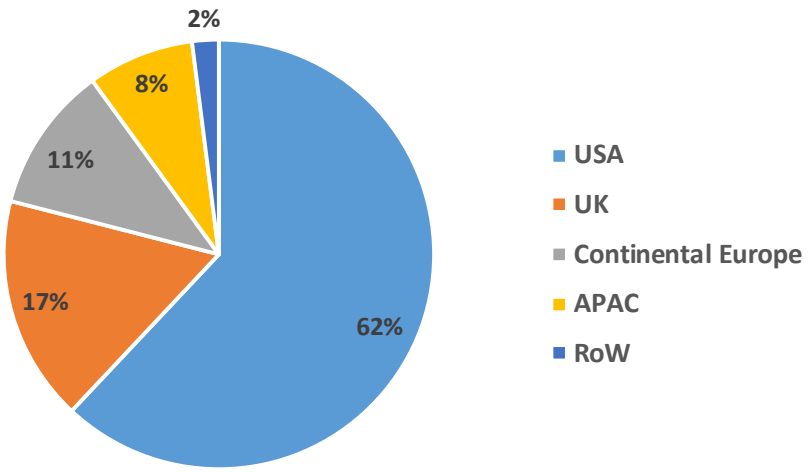


The banking, financial service and insurance (BFSI) industry segment (the largest export market sector for Indian IT-BPM companies) is witnessing an increased spend on strategic initiatives like automation, digitisation and simplification. The digital revolution is redrawing the boundaries of financial services and lowering entry barriers encouraging challengers to emerge. As a response, banks are renewing their focus on innovation in product creation, bundling, distribution & servicing. Indian IT-BPM companies are investing in a broad array of offerings in the areas of analytics, biometrics, block chains, artificial intelligence, etc., for enabling BFSI clients to tackle the dynamic environment and stay relevant for the future. Indian IT companies are similarly engaging on opportunities in other industry's demand on digital products, customer relationship management, product life cycle management, supply chain management, analytics, service quality management, process automation, data monetisation, network management and implementation of next generation technologies to realise their transformation journey. This enables the industry to partner with its clients on large multi-year engagements.

India's IT-BPM has succeeded in creating a worldwide presence – onshore, offshore, nearshore – for its customers. Present in over 78 countries through about 670 offshore development centres, the industry boasts approximately 75 per cent of Fortune 500 enterprises as its customers. Geographically US is the largest market for Indian IT-BPM companies accounting for over 60% of India's IT export basket

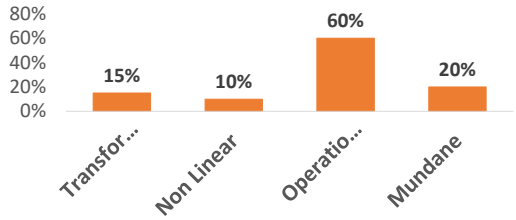
followed by UK and Europe. Exhibit 4 below shows the share of Indian IT-BPM exports to various countries in fiscal year 2016:

Exhibit 4: Indian IT-BPM country wise exports for FY 2016



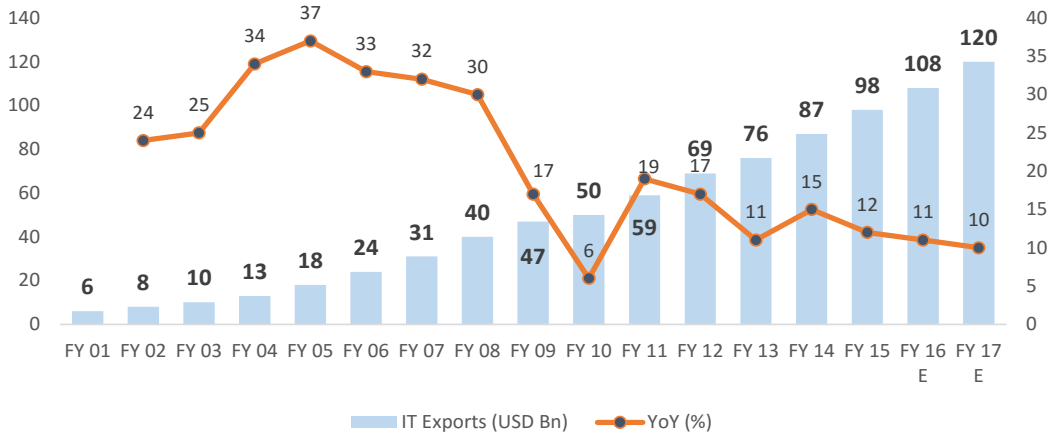
India is now the world's largest sourcing destination for the IT-BPM, accounting for approximately 56 per cent of global sourcing market. India's cost competitiveness in providing IT services, which is approximately 3-4 times cheaper than the US, continues to be the mainstay of its Unique Selling Proposition (USP) in the global sourcing market. However, the market share in newer transformational services is still less (Exhibit 5). Nevertheless, India is gaining prominence in terms of intellectual capital. Several global IT firms are setting up their innovation centres in India demonstrating the excellence the industry has been able to achieve.

Exhibit 5: Market Share of Indian IT-BPM Companies (2015)



Indian IT sector growth though has been decelerating since FY 09 after a brief pickup from pent up demand post the downturn. This trend is unlikely to change in the near term, with 11% growth in exports in FY16E likely to be followed by similar or lower growth in FY17E. Exhibit 6 below shows India's IT-BPM exports and the growth of the industry from FY 01.

Exhibit 6: Indian IT-BPM exports and growth



Indian IT-BPM companies:

Several technology solution and service providers have emerged in India over the years, offering different models for enhancing their client's product and service offerings and user experience. Some of the service lines are

- Global IT outsourcing
- Business process outsourcing
- Licensed software products
- IT infrastructure services
- Testing Services
- Speciality platforms
- Technology consulting
- Data analytics

Tata Consultancy Services Ltd(TCS), Infosys Ltd, Wipro Ltd, HCL Technologies Ltd and Patni Computer Systems were few of the early entrants in the Indian IT services space gaining immensely from the global personal computer and networking revolutions. India now has over 16,000 IT-BPM companies facilitated by the conducive internal and external environment and the industries prowess to excel.

India's computer policy of 1984 and software policy of 1986 provided the required boost to the IT services industry by slashing import tariffs on hardware and software, de-licensing software exports, encouraging foreign investment and making it easier for foreign companies to set up offshore units. Nasscom, which was set up in 1988, lobbied successfully for tax-free export zones and other facilities. The liberalization of the economy in 1991 and the Internet revolution of the 1990s triggered the establishment of software technology parks in cities such as Bangalore, Pune and Hyderabad. The recent National Policy on Information Technology 2012 aims to increase revenues of IT and BPM industry to US$ 300 billion by 2020. This policy seeks to achieve the twin goals of brining the full power of Information and Communication Technology (ICT) within the reach of the whole of India and harness the capability and human resources of the country to enable India to emerge as the Global Hub and Destination for IT and BPM Services by 2020.

Some of the prominent players in few of the above key IT areas in India are shown below

IT Services	BPM	Software Development	Infrastructure Management	Software Testing
TCS	Genpact	TCS	TCS	Wipro
Infosys	TCS	Infosys	HCL Tech	TCS
Wipro	Serco Global	Wipro	Wipro	Infosys
HCL Tech	Wipro BPO	HCL Tech	Infosys	Applab Tech
Tech Mahindra	Infosys BPO	Mphasis	Mindtree	Tech Mahindra

Source: Most, Nasscom

The strong growth of the industry has enabled the early entrants attain significant size advantage. These companies are now globally competitive, bidding for business against global IT giants. The revenue, earnings and valuation of few of the large Indian companies are shown below as Exhibit 7 & Exhibit 8:

Exhibit 7: Indian IT-BPM Companies Revenue (USD Mn)

Company	FY 14	FY 15	FY 16 E	FY 17 E	FY 18 E
TCS	13,643	15,199	16,600	18,585	20,817
Infosys	8,510	8,644	9,509	10,767	12,188
Wipro	7,242	7,540	7,729	8,075	8,884
HCL Tech	5,490	5,952	6,255	7,067	7,935
Tech Mahindra	3,140	3,610	3,996	4,464	4,956
Mind Tree	506	572	705	813	952

Source: MOSL

Exhibit 8: Indian IT-BPM Companies Earnings and Valuations

Company	Mcap	EPS (INR)		P/E (x)		ROE (%)		FY 16-18 E CAGR (%)	
	USD Bn	FY 17 E	FY 18 E	FY 17 E	FY 18 E	FY 17 E	FY 18 E	USD rev	EPS
TCS	73.9	136.3	157.1	18.7	16.2	35.6	33.3	12.0	13.7
Infosys	40.0	68.2	76.4	17.3	15.5	25.2	24.8	13.2	14.5
Wipro	19.8	41.6	46.9	13.0	11.5	20.8	20.6	9.8	13.2
HCL Tech	15.8	61.6	69.7	12.2	10.8	28.1	26.5	14.5	14.8
Tech Mahindra	7.7	37.1	43.4	14.3	12.2	20.9	18.6	10.5	14.3
Mindtree	1.6	89.2	110.4	7.1	5.7	28.3	28.6	17.7	23.0

Source: MOSL

Industry Outlook:

India is the largest IT outsourcing destination for companies across the world. Having proven its execution capabilities in delivering both on-shore and off-shore services to global clients, emerging technologies now offer an entire new gamut of opportunities for top IT companies in India. As per McKinsey, global enterprise technology spend will rise to USD 4 trillion by 2025, 80 per cent of incremental tech spending is expected to be digital. These could be platforms, cloud-based applications, big data analytics, mobile systems, social media, and cybersecurity, as well as services needed to integrate these technologies with legacy tech. Social, Mobility, Analytics and Cloud (SMAC) are collectively expected to offer a US$ 1 trillion opportunity. Cloud represents the largest opportunity under SMAC, increasing at a CAGR of approximately 30 per cent to around US$ 650-700 billion by 2020. The social media is the second most lucrative segment for IT firms, offering a US$ 250 billion market opportunity by 2020. The Indian e-commerce segment is US$ 12 billion in size and is witnessing strong

growth and thereby offers another attractive avenue for IT companies to develop products and services to cater to the high growth consumer segment. As per Nasscom, the sector is expected to triple its current annual revenue to reach US$ 350 billion by FY 2025.

In order to gear to meet the needs of the large digital opportunity Indian technology companies are moving away from secular set of services with limited scope for differentiation towards a wide array of offerings with significant room to stand out. Such a scenario warrants relatively stronger growth expectations for companies with strong leadership in new areas, investing ahead of the curve. IT bell weathers Infosys and TCS are taking strides in this direction and are well positioned to benefit from this trend. Relatively smaller companies like Mind tree and Persistent Systems are also emerging as strong plays on the digital scale.

Nevertheless, the prevailing weak macro remains a near term potential overhang for the industry at large, and is currently reflecting in problems at select large enterprises, affecting select IT vendors. This could gradually snowball into a more secular scenario if the macro weakness persists or worsens. The headwinds of pricing pressure and increased investment in capability building and augmenting sales and marketing would continue in the current environment.

Conclusion

The information technology industry has led the economic transformation of India from an agri-based economy to a knowledge based economy and altered the perception of India globally. The industry that was once dominated by global giants such as IBM and HP now boasts home-grown Indian companies that have outpaced their global peers, with India's share of the global IT offshoring market growing from 40-45% to around 56% in the past 10 years. The industry has emerged as India's largest private sector employer with approximately 3.7 million employees. The industry comprises of fifth of India's exports and accounts for about 10% of India's GDP.

IT services provided by Indian companies have transitioned from providing cost arbitrage to managing IT from a business perspective. Indian IT companies are now enablers for smart enterprises providing bi-modal IT solutions and enabling digital journey of enterprises. While currently Indian IT companies are facing headwinds due to the weak macro-economic environment they are well positioned to capitalize on the opportunities provided by SMAC wave. Potentially this trend could accelerate growth for few companies like Infosys, Mind Tree, Persistent, etc., which are fast adopting to the changing technology paradigm.