



# Indian IT & ITeS

industry

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# Industry Research

This report covers the Indian IT industry with a focus on the services segment and a brief section on IT-hardware industry towards the end.

# **Report highlights**

• India is one of the world's top sourcing destinations with a share of about 55%, where the Indian IT industry has played a major role.

• In FY18, the industry grew ~8% to reach USD 167 bn, where export revenues contributed USD 126 bn (75% share) and domestic revenues USD 41 bn (25% share).

• The industries with the largest IT spends are BFSI, manufacturing, retail and consumer packaged goods, telecom and media and entertainment.

• Americas and Europe cumulatively account for ~80% of the total export revenues for IT majors.

• Production of computer hardware is estimated to have reached Rs. 21,401 crore in FY18, exhibiting a CAGR of 5% in the past 5 years.

### Outlook

• Indian IT-ITeS industry is expected to grow between 8-11% in FY19, driven by an increase in discretionary spends in the IT space, growth across emerging verticals and healthy client additions, with increase in Total Contract Value (TCV) of new deal wins.

• Digital business for most firms will act as a catalyst for revenue growth of the industry in coming years.

• The BPO/ITeS industry may see a slowdown in hiring in the coming quarters due to introduction of minimum wage hikes in the country and automation taking over. Though automation leads to higher efficiency and accuracy, it is cutting down on jobs and talent acquisition in the BPO sector at an overall level.

• With rising protectionist measures in the form of H1-B visa restrictions, we foresee a rise in local hiring in US, payment of higher wages, which will take a hit on the margins of IT majors.



### Introduction

India is one of the world's top sourcing destinations with a share of ~55%, where the Indian IT industry has played a major role, while contributing immensely in positioning the country as a preferred investment destination amongst global investors, creating large scale employment and generating significant export revenues. Indian IT firms have set up over 1,000 global delivery centres in over 200 cities in about 80 countries around the world.

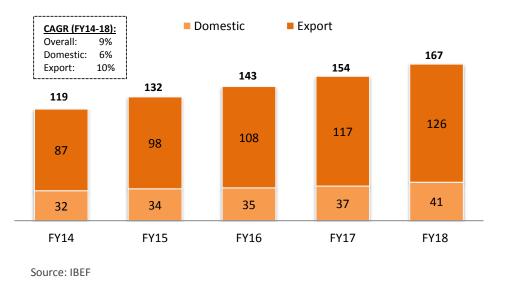
The industry employs nearly 3.97 million people in India, where India's highly qualified talent pool of technical graduates is one of the largest in the world. At the same time, India has a low-cost advantage by being ~5-6 times cheaper than US. The industry attracted FDI inflows worth ~USD 32.23 bn between April 2000 and June 2018 (industry with 2<sup>nd</sup> highest FDI equity inflows to India). FY18 saw the highest inflow (~USD 6.15 bn) in the past 5 years.

In recent years, the industry is undergoing a transition in revenue source, where overall spending on traditional services is tending to stagnate or reduce, while growth can be seen in new technologies like cloud computing, analytics, blockchain, robotics, Internet of Things (IoT), machine learning, etc. which forms about 20% of revenue source for companies today.

### Industry size

The Indian IT industry has a significant contribution to the Indian economy being sized at ~7.9% of the country's GDP, along with being the largest contributor in total services exports (~45%). In the past 5 years, the industry has added ~USD 48 bn to its market size and estimated to have reached USD 167 bn in FY18, with export revenues contributing ~75% share and rest coming from the domestic market. In FY18, exports and domestic revenues grew ~8% and ~11% Y-o-Y respectively, where the overall industry saw a growth of ~8% Y-o-Y.

Government initiatives such as digital India, start-up India, smart cities, and digital payments are catalysing growth in domestic revenues, while USA and Europe contribute more than ~80% of the total IT-ITeS export revenues.



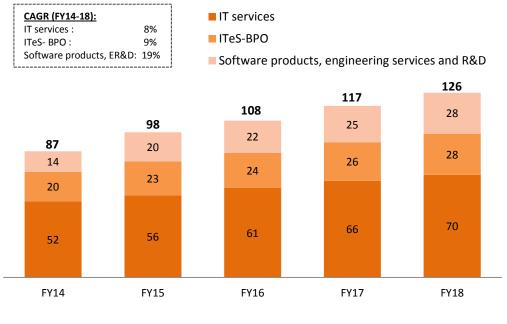
# Chart 1: Indian IT-ITeS industry revenue (USD bn)

#### Indian export market

India's overall IT-ITeS export revenues as seen in chart 2 has grown at a CAGR of 10% in the past 5 years, reaching USD 126 bn in FY18. The software products, Engineering services and R&D (ER&D) continues to be the fastest growing segment at a



CAGR of 19%, led by demand for AECS - Autonomous, Electrification, Connectivity and Shared mobility. IT servicescontributing the largest share (~55%) to the total exports, has grown at a CAGR of ~8% driven by growth in software testing and ISO (hosted applications). ITeS-BPM exports grew at a CAGR of 9%, where analytics, Robotic Process Automation (RPA), chat-bots, etc. emerged as areas of growth.



# Chart 2: Indian IT-ITeS export revenues (USD bn)

Source: IBEF

# Diversification

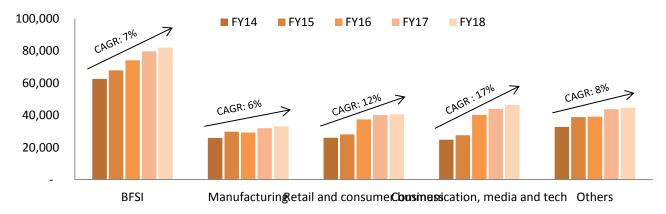
For companies operating in the IT-software industry, diversification can be in the form of industry verticals, client mix, geography and services offered, etc. Diversification in terms of industry verticals and number of clients is critical, as high dependence on few clients in a certain industry would be detrimental for the firm if the client is lost. Similarly, a high proportion of government clients may lead to high receivables for the entity. Geographical diversification helps in case of any loss of business or temporary disruptions in individual geographical markets where the entity operates.

# a) Industry verticals

(Analysis is based on data of 3 companies, namely, TCS, Infosys and Wipro, which cumulatively account for ~70% of the total sales of the IT-software industry)

The industries with the one of the largest IT spends are BFSI, manufacturing, retail and consumer packaged goods, telecom and media and entertainment. Other evolving industries are life sciences and healthcare, travel, transportation and hospitality, hi-tech, energy, resources and utilities, etc. Industry wise performances over the past 5 years can be seen in chart 3.





### Chart 3: Revenue by industry verticals (Rs crore)

Data based on 3 companies: TCS, Infosys and Wipro Note: Similar industries are grouped under a single head Source: annual reports of sample companies

#### **BFSI:**

- BFSI is the largest revenue generating industry for Indian IT firms.
- The fast penetration of technologies in the BFSI space led by increase in digital services is impacting key areas such as retail banking, investment banking, capital markets, wealth management and insurance, raising strong demand in areas like cloud, cyber security, advanced analytics and other emerging technologies. The push to digitization has also helped the IT industry.
- Back office rationalization using automation and cloud adoption was a trend across this industry.
- This segment saw a CAGR of 7% from FY14-18 and grew 3% Y-o-Y in FY18.

### Communication, media and tech:

- Some telcos have started offering flat-priced data plan, believing it will drive consumption of incremental value added services on which they expect to make bulk of the money.
- Growth in this space is driven by investments in customer experience transformation, analytics, operating model transformation, network transformation, etc.
- This segment has seen the highest CAGR of 17% from FY14-18 and grew by 5% Y-o-Y in FY18.

### Manufacturing:

- Manufacturing companies are increasingly focusing on getting efficient and thereby reducing their cost of operations, wherein, these savings will be used to fund new transformational initiatives using digital technologies, with a significant interest in cloud-related services and in the creation of a digital data core.
- Clients in this industry can be across segments such as aerospace & defense, automotive, industrial and process manufacturing, etc. helping companies transform their business processes across product design, supply chain, and aftermarket/services.
- This segment has grown at a CAGR of 6% from FY14-18 and 4% Y-o-Y in FY18.

### Retail and consumer business:

• Retail is one of the emerging industry verticals, which brings in some of the largest deals for IT majors.



- In today's times, retail and consumer business requires the type of automation to build systems that carry out huge computations on large data set and deliver insights at speeds that a human being cannot match. The relevance of Big Data has increased manifold in this area.
- Where pricing of a certain item of merchandise was until now a relatively straightforward matter of applying a
  certain mark up, today in algorithmic retailing, hundreds of factors like social media trends, demographics,
  competitor pricing, category specific variables, etc. are used to determine the optimal pricing for the item at that
  point of time, which enables dynamic pricing changes, multiple times during the day.
- This segment has grown at a CAGR of 12% from FY14-18 and by 1% Y-o-Y in FY18.

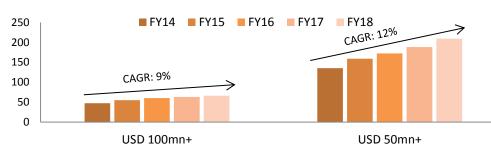
### Others:

- This segment includes industries such as life Sciences, healthcare & public services, energy, resources & utilities, etc.
- Growth in the segment was driven by spending on analytics, cloud adoption, automation, and cyber security, etc.
- This segment has seen a CAGR of 8% from FY14-18 and 2% Y-o-Y in FY18.

### b) Client base

(Analysis is based on data of 4 companies, namely, TCS, Infosys, Tech Mahindra and Wipro, which cumulatively account for ~80% of the total sales of the IT-software industry)

IT-software majors have seen a strong progression of client addition in existing as well as new geographies and verticals, on a quarterly as well as annual basis. Clients contributing to more than USD 100 mn and 50 mn in revenues have grown significantly at a CAGR of 9% and 12% respectively, in the past 5 years. The client metrics reflect the growth of clients and incremental spends, particularly in the new technology areas. Although a lot of digital revenues are seen to be coming from newly acquired clients, a significant portion is also seen from the existing customer base.



### **Chart 4: Number of clients**

Data based on 4 companies: TCS, Infosys, Tech Mahindra and Wipro Source: Annual reports of sample companies

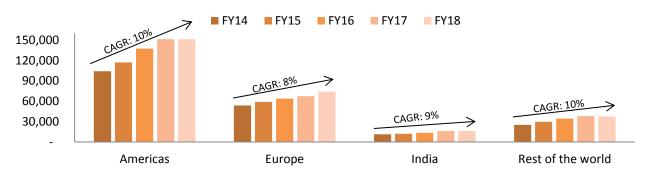
### c) Revenue by geography

(Analysis is based on data of 4 companies, namely, TCS, Infosys, Tech Mahindra and Wipro, which cumulatively account for ~80% of the total sales of the IT-software industry)

North America is the largest market for Indian IT majors as it contributes over ~50% of their revenues. An IT firm may witness seasonality with lower revenue booking in Q3 of every FY, due to holiday season in western countries who are generally its largest clients.



FY18 saw a soft growth in the US, where American companies especially in the financial services space, saw a slowdown in their IT spends, because of uncertainty in the business and poor business sentiments. Europe grew faster than Americas in FY18, where the momentum continued in Europe in Q1 and Q2-FY19, while a good recovery was seen in the North American geographical market supported mainly by BFSI and retail verticals. From FY14-18, Americas projected a CAGR of 10%, Europe 8%, India 9% and rest of the world 10%. Out of the total revenue in FY18, ~54% came from Americas, ~26% from Europe, ~6% from India and ~14% from rest of the world. Chart 5 depicts the geography wise revenue classification.



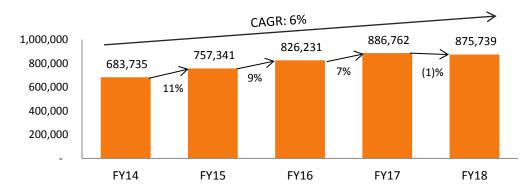
# Chart 5: Revenue by geography (Rs. crore)

Data based on 4 companies: TCS, Infosys, Tech Mahindra and Wipro Source: annual reports of sample companies

### **Employee costs**

(Analysis is based on data of 4 companies, namely, TCS, Infosys, Tech Mahindra and Wipro, which cumulatively account for ~80% of the total sales of the IT-software industry)

Employees account for one of the biggest proportion of expenses for every firm operating in this industry. An analysis of this component can be seen in chart 6, which depicts the aggregate headcount from FY14-18. A total workforce of ~1.9 lakh employees were added, establishing an overall growth of ~28% or 6% CAGR during the period.



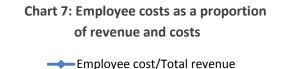
# Chart 6: Total headcount

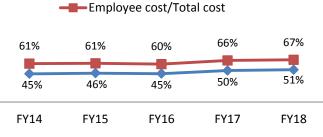
Data based on 5 companies: TCS, Infosys, Tech Mahindra and Wipro Source: annual reports, ACEequity



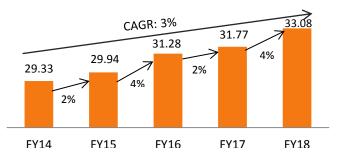
Chart 7 shows employee costs as a proportion of total revenues have grown over the period, from 61% in FY14 to 67% in FY18. At the same time, employee costs as a proportion of total costs have grown from 45% in FY14 to 51% in FY18. The aggregate employee costs have reached ~Rs. 1.7 lakh crores in FY18.

The revenue per employee as depicted in chart 8, continues to gain momentum, reaching a high of ~Rs. 33 lakhs in FY18, marking an overall growth of ~14% or 3% CAGR from FY14-18.





### Chart 8: Revenue per employee (Rs. Lakhs)



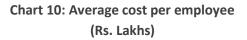
Data based on 5 companies: TCS, Infosys, Tech Mahindra and Wipro Source: annual reports

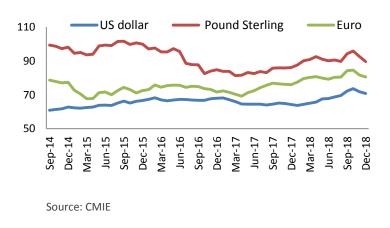
In recent years, the talent acquisition process is being re-imagined, from physically visiting hundreds of college campuses, to identifying and hiring individuals through gamified programming contests, hackathons, National Qualifier Test, etc. These processes are held at national level and attract a far larger pool of prospective employees, compared to the traditional processes of hiring.

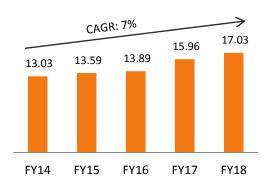
Primary reasons for growing employee costs are:

- a) Strengthening of foreign currencies against INR (chart 9).
- b) Increase in number of employees over the years, with increase in business contracts in specific geographical areas (chart 6).
- c) Growth in average cost per employee due to normal salary revisions (chart 10).









Data based on 4 companies: TCS, Infosys, Tech Mahindra and Wipro Source: annual reports of sample companies



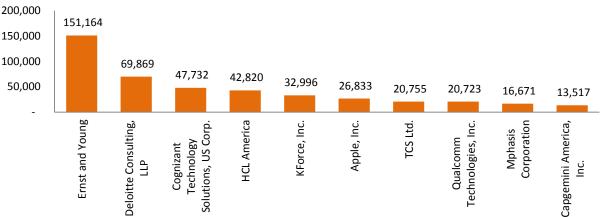
Recently top IT services companies have won work contracts worth billions of dollars, which requires employees to work on new-age technologies such as data science, machine learning, artificial intelligence, Internet of Things (IoT), cyber security, etc. As increasing number of companies shift their operations to the cloud infrastructure, the country is expected to add about 8-10 lakh employees in the field of cloud computing alone, in the next 5 years. For this, it is imperative to train youth, especially IT Engineers in such technologies. There is a necessity for educational institutions to bring about changes in their course syllabus, as well as companies to train their employees on developing such digital skills. These are the skills IT services firms seek in their employees and a willing to pay a premium for.

IT majors also plan to hire people from multiple backgrounds including design skills, Liberal Arts and other non-engineering degrees to work on new digital applications. In the newly signed deals, user experience is considered to be the key to solving business problems of clients and the skills needed for this are as much Arts as they are of Science.

### Concerns regarding non-immigrant visas

The H-1B visa is a non-immigrant visa that allows US companies to employ foreign workers in speciality occupations that require theoretical or technical expertise. As an H-1B non-immigrant, the applicant may be admitted for a period of up to 3 years, which may be extended, but not beyond a total of 6 years. This visa has an annual numerical limit cap of 65,000 each fiscal year. The first 20,000 petitions filed on behalf of beneficiaries with a US master's degree or higher are exempt from the cap. According to US Citizenship and Immigration Services (USCIS), there were 419,637 foreign nationals working in the US on H-1B visas (~74% of which were Indians, followed by China with 11%).

Consulting, audit and tax advisory firms have topped the list of those applying for H-1B visas in FY18. The top 10 applicants (chart 16) account for ~36% of the total applications filed. Charts 11, 12 and 13 highlights the applications filed for H-1B temporary Specialty Occupations Labour Condition Program for FY18.

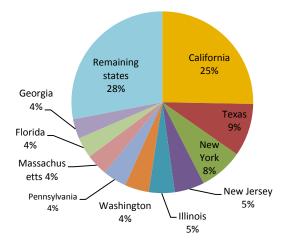


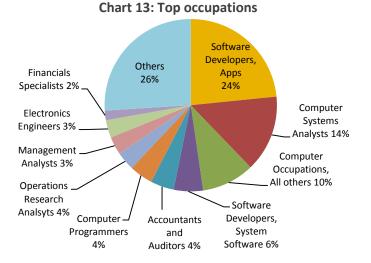
#### Chart 11: Top 10 employers

Source: Office of Foreign Labor Certification



Chart 12: Top states





Source: Office of Foreign Labor Certification

Note: Occupations based on Standard Occupational Classification (SOC) codes Source: Office of Foreign Labor Certification

Indian IT service companies have been big applicants for the US work visa in the past decade, but their application numbers are believed to be dropping recently, with pressures to hire locally. H-1B visa restrictions and resurgence in US business, driven largely by digital deals are the two primary reasons compelling many Indian IT services firms to increase their local hiring. As a result, many of them are now resorting to hiring and training fresh grads and deploying them on projects locally.

The US Department of Homeland Security (DHS) proposed a new visa rule, where the firms seeking to obtain H-1B visas will have to electronically register their petition in advance with USCIS. There will be a reverse selection process to include US masters or advanced degree holders within the 65,000 – cap. This move is expected to reduce the chance of Indian software engineers getting US visas.

US is believed to have taken this step with the goal of protecting the wages and job opportunities of US workers, along with ensuring that H-1B visas are awarded to the most skilled or highest paid. This proposal in President Donald Trump's fall agenda is consistent with the 'Buy American, Hire American'.

# Premium processing

Premium processing is a feature that shortens the usual processing time of H-1B visa petitions from an average of 6 months to 15 calendar days on payment of a fee. Premium processing was earlier scheduled to be suspended only till September 10, 2018, which was later extended till February 19, 2019 (estimated). This temporary suspension is for clearing the backlog help reduce overall H-1B processing times by allowing the authority to process long-pending petitions, which the agency said it has been unable to process due to the high volume of incoming petitions and premium processing requests over the past few months. As a result, companies such as TCS, Wipro, Infosys, etc. have ramped up local hiring in US.

Such initiative by the US government is expected to create cost pressures on IT services firms, which are H-1B visa dependent, due to increase in compliance and lobbying costs. Movement of low cost labour from India is expected to gradually reduce over a period of time as local hiring in US sees a rise.

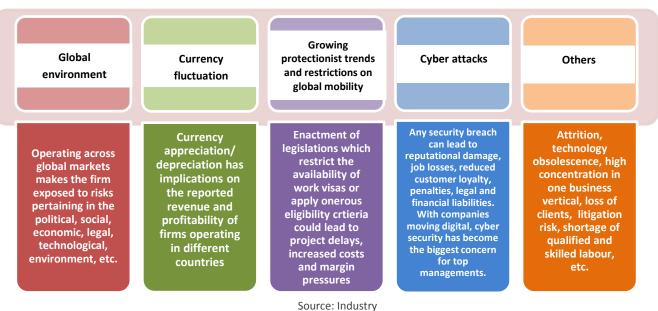


The revocation of work authorisation to H-4 visa holders, which are issued to the immediate family members (spouse and children under 21 years of age) of H-1B foreign workers, could act as another reason for IT services firms pushing local hiring in US, as significant majority of H-4 visa holders are Indian-Americans and women.

#### Some of the recent investments in the industry:

- HCL Technologies plans to acquire select IBM software products for USD 1.8 bn in an all-cash deal. The deal is
  expected to close by mid-2019.
- Tech Mahindra has bagged Rs.2.7 bn project from Coal India to deploy modern technologies in the company. The
  project will be completed over a period of 5 years. The implementation of the project will be done in phases. The
  phase 1 of the project includes ERP software implementation in Coal India and its 2 subsidiaries Mahanadi
  Coalfields and Western Coalfields.
- Infosys has opened a Technology and Innovation Hub in Hartford, US. The centre will serve as the global hub for the company's InsurTech and HealthTech efforts and help Infosys work more closely with its clients in the region. The company is in the process of setting up more similar hubs across US. It expects to hire 10,000 local workers by 2019.
- To create jobs, attract investment and boost software exports, the Kerala government plans to increase IT park space from 13 mn sq. ft. to 23 mn sq. ft. This would enable creation of 2.5 lakh direct jobs besides increasing software export and attracting investors to the state.
- Tech Mahindra has collaborated with Microsoft to develop a blockchain-based technology to curb pesky calls and SMS as recommended by the TRAI. The partnership is likely to create a Distributed Ledger Technology (DLT)-based solution to build a robust ecosystem in line with the regulations issued by the telecom regulator.
- Wipro will start its BPO operations in Mysuru by the end of the year. The company will complete work on the Software Technology Parks of India (STPI) building and incubation centre, which began in Oct-16 in the next few months. The BPO and incubation centre has been set up at a cost of Rs. 24 crore and is expected to provide jobs to about 750 people.

### **Key risks**



### Chart 14: Key risks faced by companies operating in the IT industry

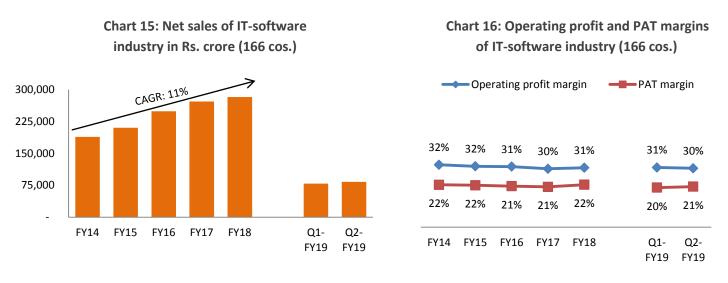


# Financials- IT software industry

Net sales as shown in chart 15, have grown to ~2.8 lakh crores in FY18 (~50% overall growth over the past 5 years and a CAGR of ~11%). The top 5 companies account for more than 85% of the industry's total revenue and the overall industry has noted a 4% Y-o-Y growth in FY18.

The industry witnessed faster growth in FY19, where the highest quarterly growth of past 10 quarters was seen in Q1-FY19 at ~7%. Out of the total 166 companies analysed in our sample, 78 companies reported a Y-o-Y growth in sales in FY18, 64 companies reported a decline in sales, while remaining companies were at the year ago levels or did report any rise/decline. The growth can be attributed to acceleration in digital adoption and implementation.

The operating profit margins (chart 16) were in the range of 30-32% and PAT margins in the range of 20-22% during the period. IT majors benefitted from Rupee depreciation during Q2-FY19. However, impact differs across individual companies, depending on their hedging policies and levels of offshoring. We expect the currency advantage to continue in Q3-FY19.





A recent decision by Authority for Advance Ruling (AAR) that services rendered to overseas clients did not qualify as exports and would face GST of 18%, would completely derail the cost dynamics of the back-office model that operates on thin margins and increasingly face challenges from other low-cost jurisdiction such as the Philippines.

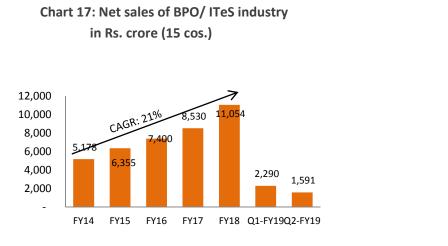
# Financials – BPO/ITeS

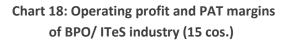
The BPO/ITeS industry sales (chart 17) have more than doubled in the past 5 years, crossing ~Rs.11,000 crores in FY18. However, the growth in net sales has been decelerating since Sept-17 quarter. The revenues dropped 11% in Q1-FY19 on a Y-o-Y basis and further decelerated 42% in Q2-FY19 on a Y-o-Y basis. The reduction in sales growth was mainly on account of rising protectionism in developed countries and an increase in automation and artificial intelligence. Out of the 15 companies analysed in our sample, 4 companies reported growth in sales in Q2-FY19 on a Y-o-Y basis, while 6 companies posted a decline, remaining companies saw no growth/decline during the period.

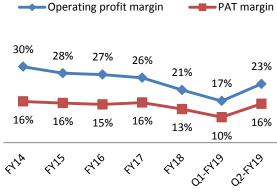
PAT margins (chart 18) have remained in the range of 13-16%, whereas, the operating profit margin has seen a decline over the past 5 years. The fall in operating profit is attributed to a faster rise in the operating expenses compared to the growth



in sales, owing to a rise in salary and wages expenses, taking a hit on the operating margins. The industry's PAT remained stable through the period on account of fall in depreciation charges and interest expense.







#### Source: ACEequity

The total headcount of BPO/ITeS industry of 8 companies analysed in our sample, as shown in chart 19, has grown at a CAGR of 4% over the past 5 years. The total headcount declined 7% in FY18 on a Y-o-Y basis. The industry is undergoing transformation as it uses technology to automate the process. By deploying Robotic Process Automation (RPA), the need to outsource back office or customer call centre operations will be reduced, as chat-bots and mobile applications will address customer queries without requiring any human interaction. In addition to this, the recent implementation of minimum wage hike may lead to inflation of employee costs and the industry could see job cuts in the coming quarters.

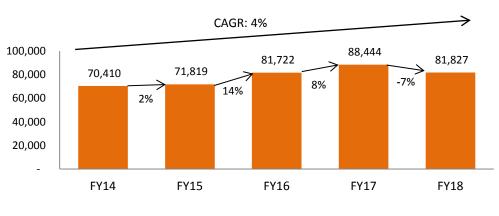


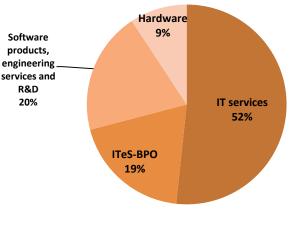
Chart 19: Total headcount (8 cos.)

Source: Ace Equity



# IT – hardware industry

In FY18, the Indian IT- hardware industry stood at ~USD 15.4 bn, of which the domestic market accounts for almost the entire share. As seen in chart 20, IT-hardware industry generated ~9% revenues for the overall Indian IT industry in FY18.



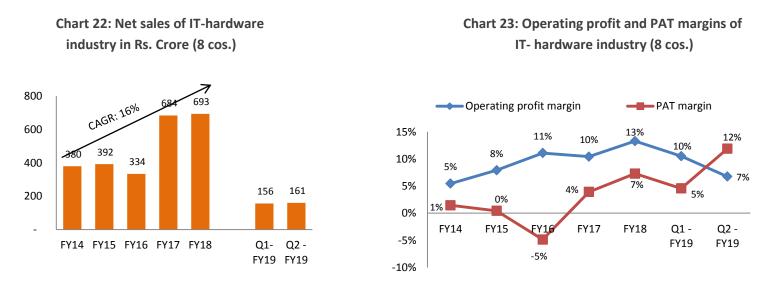
# Chart 20: Share of IT-hardware industry in overall IT industry (FY18)



IT-hardware comprises of desktops, laptops, tablets, servers, microprocessor based systems and computer peripherals, etc. With the advent of technology and varieties of smart phones, the usage of conventional desktops has diminished for personal purposes. However, the usage of the computers and its peripherals in commercial, industrial and offices is likely to stay and grow at a steady pace.

# **Financials**

The analysis of a sample of 8 companies operating in IT-hardware industry can be seen in chart 22 and 23. The net sales of the IT-hardware industry grew at a CAGR of 16% from FY14-18. The operating profit and PAT margins have been volatile through the period, where the operating profit margin fell in FY18, whereas, the PAT margin picked up during the year.



Source: ACEequity



### Outlook

- Indian IT-ITeS industry is expected to grow between 8-11% in FY19, driven by an increase in discretionary spends in the IT space, growth across emerging verticals and healthy client additions, with increase in Total Contract Value (TCV) of new deal wins.
- Digital business for most firms is growing faster than the rest of the business, where its share in total revenues has been growing consistently over the years, indicating that digital continues to be the topmost agenda for both customers and service providers, which will act as a catalyst for revenue growth of the industry in coming years.
- As top IT majors win large contracts requiring employees to work on new-age technologies such as data science, machine learning, artificial intelligence, Internet of Things (IoT), cyber security, etc., new hiring will be focused on individuals possessing such skills, as these are currently the highest paid technology areas.
- The BPO/ITeS industry may see a slowdown in hiring in the coming quarters due to introduction of minimum wage hikes in the country and automation taking over. Though automation leads to higher efficiency and accuracy, it is cutting down on jobs and talent acquisition in the BPO sector at an overall level.
- With rising protectionist measures in the form of H1-B visa restrictions, we foresee a rise in local hiring in US, payment of higher wages, which will take a hit on the margins of IT majors.

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