Chapter III

A PROFILE OF INFORMATION TECHNOLOGY INDUSTRY IN INDIA

3.1 INTRODUCTION TO IT INDUSTRY IN INDIA

Information technology (IT) is amongst the fastest growing sectors in the country. Indian IT industry has been driven by the IT software and services and IT enabled services (ITES). The IT industry of India has been moving up the value chain, giving a formidable brand equity in the global markets. Business Process Outsourcing (ITES-BPO) sector has emerged as a key driver of growth for the Indian software and services industry. It has become the biggest employment generator amongst young college graduates. In addition, the industry helps to create millions of job opportunities through direct and induced employment in telecom, power, construction, facility management, IT, transportation, catering and other services.

Indian companies are expanding their service offerings, enabling customers to deepen their offshore engagements and shifting from low-end business processes to higher ones. They are also enhancing their global service delivery capabilities through a combination of Greenfield initiatives, cross-border mergers and acquisitions, as well as partnerships and alliances with local players. This has helped them execute end-to-end delivery of new services.

Also, a majority of companies have already aligned their internal processes and practices to international standards such as International Organization for Standardization (ISO); Capability Maturity Model (CMM); and Six Sigma. This has helped establish India as a credible sourcing destination.
Further, in order to ensure that the benefits of IT reach the common man, Government has initiated a move to make available tools and fonts in various Indian languages freely to the general public. Software tools and fonts for 10 Indian languages namely Hindi, Tamil, Telugu, Assamese, Kannada, Malayalam, Marathi, Oriya, Punjabi and Urdu languages have already been released.

As a result of all such efforts, India is placed among the fastest growing IT markets in the Asia-Pacific region. Global software giants such as Microsoft, Google, Oracle and SAP have established their captive development centres in here. Today, India is a preferred destination for ITES due to its distinct advantages, which lay in its supportive government policies; infrastructural facilities; low manpower cost; growing knowledge pool; specialized technical skills; higher productivity and quality of service; etc. This increasing attractiveness as an investment destination in IT has even led to a reversal of the brain drain i.e. the people of Indian origin who went to pursue careers abroad are now attracted to work in India itself.

### 3.2 EVOLUTION OF IT INDUSTRY IN INDIA

The evolution of the IT industry in India can be divided into five phases.

- **Phase I:** Prior to the year 1980
- **Phase II:** Year 1980- 1990
- **Phase III:** Year 1990- 2000
- **Phase IV:** Year 2000-2010
- **Phase V:** Posterior to the year 2010
**Phase I: Prior to the year 1980**

Indian IT industry was basically started with hardware products and software industry was literally non-existent in India until 1960. In the western parts of the world, there was greater demand for software development as the inbuilt software with the systems was found to be insufficient to perform all the operations.

India was motivated to try to develop self-sufficiency in computers and electronics largely by national security concerns related to border conflicts with China and Pakistan. The government created an Electronics Committee which devised a strategy for achieving self-sufficiency in electronics within ten years by "leapfrogging" ahead to absorb the most advanced products and technologies available. The goal was eventually to achieve indigenization of technology, whereby India would move away from dependence on foreign technology and produce its own. This approach not only responded to the perceived security risks, but also fit the ideology of self-sufficiency which drove much of India's post-independence political and economic agenda.

The Government of India realizing the potential of this sector to earn foreign exchange. In 1972, the government formulated a software export scheme in which it was decided to import hardware and export software. Tata Consultancy Services Ltd. became the first firm to agree to these conditions. The beginning of software exports was made in the year 1974.

With these as the humble beginnings, the Indian IT industry witnessed the Indian Government policies becoming more favorable in late 1980s, representative industry associations getting formed (one of which eventually became NASSCOM – the National Association of Software and Service Companies) and the IT training and education level gradually becoming strong enough for creating a full-fledged industry.
Finally, in the initial years, export of software initially meant a physical transfer either of the programmer himself called ‘body-shopping’ which means the provision of labor intensive, low value added programming services, such as coding and testing at client sites or of software on floppy disks.

**Phase II: Year 1980- 1990**

During this phase, in spite of the Government initiatives, the software exports could not reach the expected level because of two reasons. The export of software was dependant on the imports of hardware and the procedural aspects were too cumbersome. There were no proper infrastructural facilities for software development. In order to encourage more participants in this sector, relaxation to procedural activities and reduction in import duty was essential. To solve the prevailing problem a new computer policy was formulated to simplify the import procedures and reduce the import duty for import on hardware.

In 1986, the Government of India took a step ahead to sustain and grow the benefits received as a result of the new computer policy. It formulated software policy and liberalized the IT industry. In this policy the imports of hardware were made duty free. This policy has reduced a number of entry barriers making the growth in this sector inevitable.

In 1990, the Government of India gave a thrust to establish Software Technology parks in India in order to increase the exports of software and services.

**Phase III: 1990- 2000**

After the economic reforms of 1991-92, major fiscal incentives provided by the Government of India and the State Governments, like, liberalization of external trade, elimination of duties on imports of information technology products, relaxation
of controls on both inward and outward investments and foreign exchange, setting up of Export Oriented Units (EOU), Software Technology Parks (STP), and Special Economic Zones (SEZ), has enabled India to flourish and acquire a dominant position in world’s IT scenario.

This period has witnessed intensified competition in the IT Industry with companies investing in research and development and variety of software services. This decade marked the beginning of significant changes in the economy, including trade liberalization, opening up of Indian economy for foreign investment, devaluation of the rupee and relaxation of the entry barriers. Due to the advantages, this policy had attracted foreign investment in India and MNCs in India were introduced. ‘Offshore Model’, ‘Onsite model’, ‘Global Delivery Model’ was introduced as a part of their distinguished services.

**Phase IV: Year 2000 - 2010**

The global problems like Y2k, the dotcom crash and the recession in the US economy has forced many US firms to utilize the services of the Indian firms. This has resulted in placing the Indian IT industry on the global map. Post 2002 – 03, the industry had registered a robust growth rate. During this period there was an increase in the Indian client base, large sized contracts and a strong global delivery model. Many Indian Universities offered exclusive course on IT and produced qualified software engineers. The rendering of IT services were multiplied by many manifolds.

The industry has grown in depth and scope. It is no longer confined to producing and exporting low-end software products and services. Several multinational companies (MNCs), including many leading ones, have established software development centers in India.

Leading Indian IT firms, such as Infosys and Wipro, are multinational and
have offices around the world and employ nationals in these countries. Infosys has alliances with the world’s leading firms, including IBM, Intel, Microsoft and Oracle, and also has made strategic acquisitions of foreign firms.

NASSCOM documents the increasing maturity of the industry following a large number of mergers and acquisitions it noted that traditional IT service players have added ITES-BPO portfolios to their existing offerings in order to provide a complete umbrella of end-to-end services. Multi-vendor and build-operate-transfer (BOT) contracts which offer customers advantages such as low risks, scalability and competitive pricing have increased. Indian vendors (IVs) are expanding the spectrum of their service offering in client locations and even setting up facilities in other low cost ITES -BPO destinations such as China and the Philippines in order to tap these markets. They are also moving up the value added ladder to offer high-end services such as equity research and analytics, insurance and technology support and development.

Moreover, Indian vendors have moved far beyond call centers into financial services, telecom, retailing and automotive segments of the ITES-BPO sector. In financial services, Indian companies are offering customers services centered around accounting, billing and payment services and transaction processing. Over the past few years, some Indian service providers have also been offering higher value services to customers in the areas of insurance claims processing and equity research support.

In addition to the IT giants like TCS Ltd, Infosys Technologies Ltd, Wipro Ltd, many small players were introduced in the IT sector. Liberalization of the norms had a great impact for sprouting of many new small IT firms in India. Their contribution to the Indian economy is not negligible.
Phase V: Posterior to the year 2010

The underlying theme of 2010 was that of steady recovery from recession. The accelerated recovery in emerging markets, worldwide spending in IT products and services increased significantly in 2011. In 2011, India’s growth has reflected new demand for IT goods and services, with a major surge in the use of private and public cloud and mobile computing on a variety of devices and through a range of new software applications.

High inflow of FDI in the IT sector is expected to continue in coming years. The inflow of huge volumes of FDI in the IT industry of India has not only boosted the industry but the entire Indian economy in recent years.

Foreign technology induction is also encouraged both through FDI and through foreign technology collaboration agreements. India welcomes investors in Information Technology sector. Greater transparency in policies and procedures has made India an investor friendly platform.

3.3 ROLE OF NASSCOM

The National Association of Software and Services Companies (NASSCOM) is a trade association of Indian Information Technology (IT) and Business Process Outsourcing (BPO) industry. It is registered under the Indian Societies Act, 1860. NASSCOM is headquartered in New Delhi, India, with regional offices in the cities of Mumbai, Chennai, Hyderabad, Bangalore, Pune, and Kolkata.

Vision of NASSCOM

To help the IT and IT enabled products and services industry in India to be a trustworthy, respected, innovative and society friendly industry in the world NASSCOM is the industry association for the IT-BPM sector in India.
A not-for-profit organisation funded by the industry, its objective is to build a growth led and sustainable technology and business services sector in the country.

Established in 1988, NASSCOM’s membership has grown over the years and currently stands at 1,400. These companies represent 95 percent of industry revenues and have enabled the association to spearhead initiatives and programs to build the sector in the country and globally.

NASSCOM members are active participants in the new global economy and are admired for their innovative business practices, social initiatives and thrust on emerging opportunities.

Activities of NASSCOM

- Set strategic direction for industry
- Best practices sharing and collaboration
- International partnership and policy
- Work force development
- Incubate and build new sectors

NASSCOM role has primarily been to make sure that service quality and enforcement of Intellectual Property Rights have been properly implemented in the Indian software and BPO industry. NASSCOM has a Mentorship Programme for the midsized companies. This is a six-month engagement, which will help the organisation to develop a better assessment of their strengths and weaknesses.

Insights of NASSCOM on industry trends

- Access to NASSCOM research and intelligence that tracks industry trends, growth opportunities and best practices.
- Access to industry presentations, blogs, discussions and articles.
• An opportunity to engage with the NASSCOM research team and share case studies or transformational stories.

**NASSCOM provides opportunities to enhance visibility of member companies**

• Visibility through features and interviews on the NASSCOM website, as well as the monthly newsletter, NASSCOM news line.

• Speak, sponsor or participant opportunities at NASSCOM events.

• Chance to contribute to blogs and newsletters as thought leaders.

• Brand building through NASSCOM awards and recognitions.

**NASSCOM provides opportunity to network, build and share best practices**

• Chance to use the member database on NASSCOM’s website to post a trade lead, or participate in one.

• Chance to share or learn best practices through city-level networking sessions on human capital development, data security, contract management, quality, diversity and more.

**NASSCOM enables global trade development**

• Members can participate in opportunities for global networking and build business at NASSCOM’s global events, and through delegations and road shows.

• Network with companies in other countries through their delegations to India.

• Receive information regularly about policy updates in countries.

• Understand issues related to visas, immigration through NASSCOM’s mobility best practices sessions.

• Learn about trends and opportunities in markets through country reports.
3.4 IT INDUSTRY IN TAMILNADU

Tamilnadu was one of the first states in India to formulate a comprehensive IT policy. As early as 1997, the State Government released an Industry-specific Policy for the IT industry to achieve the goals spelt out in the Ninth five year plan and to focus attention on the IT industry as an engine of growth in the State. However, the pace of change in the IT industry necessitated a revision of this plan. In the year 2002, the Government of Tamilnadu released a new IT policy geared towards leveraging IT to herald prosperity in the State and to turn Tamilnadu into a Knowledge-empowered State.

The advent of the Internet has transformed the world into a Global village and has ushered in an era of IT-enabled services delivery worldwide. As per the 2002 report of NASSCOM, IT and IT-enabled Services Industry will account for over 7% of India’s GDP and 30% of Foreign exchange within a decade. This revolution will also generate over four million jobs in the Knowledge sector (IT and ITES industries). Tamilnadu is uniquely poised to leverage this great opportunity due to its educated workforce and excellent administration. The Government of Tamilnadu released an ITES policy in 2005 to highlight the advantages of ITES investment in the state.

3.5 IT INDUSTRY IN CHENNAI

In the diversified economic foundation, software service has gained a major ground in the Chennai’s economy. The late 1990s, witnessed the birth of business process outsourcing and software development and within few years there was a prominent squirt of outgrowth in the number and magnitude of the software industries in the city.
This in turn created a great impact on the city's economy. Chennai is now one of the important software centres of India. Cheap IT labour is one of the main fact that has attracted multitude of multi-billion-rupee foreign software companies such as Microsoft to establish their business in the city as well as in other software centres of India like Bangalore, Hyderabad, Kolkata, and Delhi making the country a booming software exporter worldwide.

Major software companies in Chennai are like TCS, Wipro, CTS, Accenture, Tech Mahindra, HP, HCL, Infosys, IBM, Sun Microsystems, Symantec, Verizon, Oracle and many. At present Chennai is the second largest exporter of IT and IT enabled Services in India next to the Silicon Valley.

3.6 PROFILE OF COMPANIES SELECTED FOR THE STUDY

The IT companies taken for the present study are:

- Tata Consultancy Services Limited
- Infosys Technologies Limited
- Wipro Ltd
- HCL Technologies
- Tech Mahindra Ltd

3.6.1 Tata Consultancy Services Limited

Tata Consultancy Services Limited (TCS) is an Indian multinational information technology (IT) service, consulting and business solutions company headquartered in Mumbai, Maharashtra. TCS operates in 46 countries. It is a subsidiary of the Tata Group and is listed on the Bombay Stock Exchange and the
National Stock Exchange of India. TCS is the largest Indian company by market capitalization and is the largest India based IT Services Company by 2013 revenues.

Established in 1968, Tata Consultancy Services a member of the Tata Group has grown to its current position as the largest IT services firm in Asia based on its record of outstanding service, collaborative partnerships, innovation, and corporate responsibility. It was founded by Jamsetji Tata and it is one of India’s most respected institutions today. Their mission reflects the Tata Group's longstanding commitment to providing excellence. To help customers achieve their business objectives by providing innovative, best-in-class consulting, IT solutions and services, and to actively engage all stakeholders in a productive, collaborative, and mutually beneficial relationship.

TCS is now placed among the ‘Big 4’ most valuable IT services brands worldwide. In 2013, TCS is ranked 40th overall in the Forbes World’s Most Innovative Companies ranking, making it both the highest-ranked IT services company and the top Indian company. It is the world’s 10th largest IT services provider, measured by the revenues.

Tata Consultancy Services delivers real results to global businesses, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled services delivered through its unique Global Network Delivery Model, recognized as the benchmark of excellence in software development.

TCS and its 59 subsidiaries provide a wide range of information technology-related products and services including application development, business process outsourcing, capacity planning, consulting, enterprise software, hardware sizing, payment processing, software management and technology education services. Its established software products are TCS BaNCS and TCS MasterCraft.
In addition, TCS provides IPL Cricket team Rajasthan Royals with technology to help in analysis of player performance, simulation and use of RFID tags for tracking the players’ fitness levels and for security purposes in the stadiums. TCS sponsors an annual IT quiz for high school students called *TCS IT Wiz*.

**Products and services offered by the company:**

**Technology Products –**

- Exegenix Intelligent Document Conversion Solutions
- SupportCentral - Business Social Productivity Platform
- TCS Digital Certification Services / Public Key Infrastructure (PKI) Suite
- TCS Tax Mantra Integrated Tax Solution
- TCS Business Rules Engine
- TCS Experience Based KM (Knowledge Management)
- TCS Certificate Validation Server
- TCS eLearning Effectiveness Measurement Solution
- TCS Saakshi (Time Stamping Solution)
- TCS Stand Alone Post Processor
- TCS WebFACTORe (Web-enabled Plant Maintenance Management Tool)
- TCS Enterprise Integration and Control Environment
- TCS SmartBox (Next Generation Industrial Controller Development Framework)
- TCS Sevak - Self Service Terminals
- TCS Rapid Sigma (Six Sigma Solution for Continuous Improvement)
- TCS Teamcenter for Medical Devices

**Other Products -**

- TCS Clin-e2e
• TCS Hospital Management Solution
• TCS Silicone Ambulatory ECG Device and Solution
• TCS Enterprise Integration and Control Environment Solution/ Energy and Utilities
• TCS Bio-informatics Solution
• VERICUT - Machine Simulation Software

**Services:**

**IT Services:-**

• Custom Application Development
• Application Management
• Migration & Re-engineering
• System Integration
• Testing
• Performance Engineering

**Infrastructure Services:-**

• Infrastructure Readiness Assessment
• IT Service Desk
• Data Center Management
• End User Computing Services
• Database Services
• Application Management Services
• Command Center Services
• Managed Security Services

**Enterprise Solutions**

• Supply Chain Management
- Master Data Management
- Customer Relationship Management
- RFID
- Call Management
- Oracle
- SAP

**Consulting**

- Business Consulting
- IT Consulting
- Business Solutions

**TCS' directly-held subsidiaries include:**

- AP Online Limited (India)
- C-Edge Technologies Limited (India)
- CMC Limited (India)
- Diligenta Limited (UK)
- Tata Consultancy Services Canada Inc. (Canada)
- Tata America International Corporation (USA)
- Tata Consultancy Services Asia Pacific Pte Limited (Singapore)
- Tata Consultancy Services Belgium S.A. (Belgium)
- Tata Consultancy Services Deutschland GmbH (Germany)
- Tata Consultancy Services France S.A. (France)
- Tata Consultancy Services Netherlands B.V. (Netherlands)
- Tata Consultancy Services Sverige AB (Sweden)
- Tata Consultancy Services Switzerland Ltd (Switzerland)
- Tata Infotech (Singapore) Pte. Limited * (Singapore)
- Tata Infotech Deutschland GmbH * (Germany)
- TCS FNS Pty. Limited (Australia)
- TCS Iberoamerica S.A. (Uruguay)
- WTI Advanced Technology Limited (India)

**TCS' indirectly held subsidiaries include:**

- CMC Americas Inc. (USA)
- Swedish Indian IT Resources AB (Sweden)
- Tata Information Technology (Shanghai) (China)
- Tata Consultancy Services Solution Center S.A. (Uruguay)
- TCS Argentina S.A. (Argentina)
- TCS Brazil S/C Limitada (Brazil)
- Tata Consultancy Services de Mexico S.A. De. C.V. (Mexico)
- TCS Inversiones Chile Limitada (Chile)
- Tata Consultancy Services de Espana S.A. (Spain)
- Tata Consultancy Services Do Brasil S.A. (Brazil)
- Tata Consultancy Services Chile S.A. (Chile)
- TCS Italia SRL (Italy)
- Tata Consultancy Services Japan Limited (Japan)
- Tata Consultancy Services Malaysia SDN. BHD. (Malaysia)
- Tata Consultancy Services Luxembourg S.A Capellen (G.D. de Luxembourg)
- Tata Consultancy Services Portugal Unipesoal Limitada (Portugal)
- Tata Consultancy Services Chile Limitada (Chile)
- Comicrom S.A. (Chile)
- Sisteco S.A. (Chile)
• Syscrom S.A. (Chile)
• Pentacrom S.A. (Chile)
• Pentacrom Servicios S.A. (Chile)
• Custodia De Documentos Intres Limitada (Chile)
• Financial Network Services (Holdings) Pty Limited (Australia)
• Financial Network Services Pty Limited (Australia)
• Financial Network Services (Facilities Management) Pty Limited (Australia)
• Financial Network Services (Europe) plc (UK)
• Financial Network Services Malaysia Sdn Bhd (Malaysia)
• TCS Financial Network Services (Indonesia)
• Chong Wan Investments Limited (Hong Kong)
• Financial Network Services (Africa) Pty Ltd. (South Africa)
• Financial Network Services Chile Limitada (Chile)

3.6.2 Infosys Technologies Limited

Infosys Technologies Limited is an Indian multinational corporation that provides business consulting, information technology, software engineering and outsourcing services. It is headquartered in Bangalore, Karnataka. Infosys is the third-largest India-based IT services company by 2014 revenues, and the fifth largest employer of H-1B visa professionals in the United States in FY 2013. On 31 March 2014, its market capitalization was 188,510 crores ($31.11 billion), making it India’s fifth largest publicly traded company.

Infosys was co-founded in 1981 by Narayan Murthy, Nandan Nilekani, N. S. Raghavan, S. Gopalakrishnan, S. D. Shibulal, K. Dinesh and Ashok Arora after they resigned from Patni Computer Systems. The company was incorporated as “Infosys
Consultants Pvt Ltd.” with a capital of Rs. 10,000 (roughly $250) in Model Colony, Pune as the registered office. It signed its first client, Data Basics Corporation, in New York. In 1983, the company’s corporate headquarters was relocated from Pune to Bangalore.

The name “Infosys Consultants Pvt Ltd.” was changed to “Infosys Technologies Private Limited” in April 1992 and to “Infosys Technologies Limited” when it became a public limited company in June 1992. It was later renamed to “Infosys Limited” in June 2011.

It provides software development, maintenance and independent validation services to companies in banking, finance, insurance, manufacturing and other domains. One of its known products is Finacle which is a universal banking solution with various modules for retail and corporate banking.

Software Engineering & Technology Labs (SETLabs) is the research arm of Infosys. It is at the forefront of anticipating and shaping the evolution of technology and its impact on business. Infosys SETLabs undertakes targeted R&D to address your business problems. Our researchers are engaged in cutting-edge research to share insights with clients. They focus on research areas such as Malleable Architecture, Pervasive Access, Flexible Processes and Personalized Information. These areas constitute the fundamental business technology components of a progressive, information-centered enterprise.
Products and Services offered by Infosys Ltd.:

**IT Services**
- Application Services
- Architecture Services
- Enterprise Quality Services
- Independent Validation Services
- Information Management Services
- Infrastructure Services
- Packaged Application Services
- SOA Services
- Systems Integration Services

**Engineering Services**
- Product Engineering
- Manufacturing Process and Plant Solutions
- Lifecycle Management
- Consulting Services
- Information & Technology Strategies
- Product Innovation
- Next Generation Commerce
- Core Process Excellence
- Learning & Complex Change

**BPO Services**
- Business Platforms
- Customer Service Outsourcing
- Finance and Accounting
- Human Resource Outsourcing
- Knowledge Services
- Legal Services
- Order Management
- Sourcing and Procurement Outsourcing

**Product and Platforms**

- Collaborative Analytics
- Finacle
- Infosys ActiveDesk
- Infosys mConnect
- Infosys Unified Communications and Collaboration (UC)

**Subsidiaries of the company:**

- Infosys BPO
- Infosys Consulting
- Infosys Australia
- Infosys China
- Infosys Mexico

### 3.6.3 Wipro Ltd

Wipro Limited (Western India Products Limited) is a multinational IT Consulting and System Integration services company headquartered in Bangalore, India. As of December 2014, the company has 154,297 employees servicing over 900 large enterprise & Fortune 1000 corporations with a presence in 61 countries. On 31 March 2014, its market capitalization was approximately 1.27 trillion ($20.8 billion), making it one of India’s largest publicly traded company and seventh largest IT services firm globally.
Recently Wipro has also identified Brazil, Canada & Australia as rapidly growing markets globally and has committed to strengthen the presence in the respective countries over the next 5 years.

Wipro Limited is a global company provider of comprehensive IT solutions and services, including Systems Integration, Consulting, Information Systems outsourcing, IT-enabled services, and R&D services. It is also a value added reseller of desktops, servers, notebooks, storage products, networking solutions and packaged software for international brands.

Wipro entered into the technology business in 1981 and has over 140,000 employees and clients across 54 countries today. IT revenues stood at $6.2 billion for the year ended 31 March 2013, with a repeat business ratio of over 95%. The business model at Wipro Technologies Ltd is an industry aligned customer facing model which gives greater understanding of customers’ businesses to build industry specific solutions.

Wipro is globally recognized for its innovative approach towards delivering business value and its commitment to sustainability. Wipro champions optimized utilization of natural resources, capital and talent. Today Wipro is a trusted partner of choice for global businesses looking to ‘differentiate at the front’ and ‘standardize at the core’ through technology interventions.

In today’s world, organizations will have to rapidly reengineer themselves and be more responsive to changing customer needs. Wipro is well positioned to be a partner and co-innovator to businesses in their transformation journey, identify new growth opportunities and facilitate their foray into new sectors and markets.
To focus on core IT Business, it demerged its non-IT businesses into a separate company named Wipro Enterprises Limited with effect from 31 March 2013. The demerged company offers consumer care, lighting, healthcare and infrastructure engineering and contributed to approx.

3.6.4 HCL Technologies Ltd

HCL Technologies Limited is an Indian global IT services company headquartered in Noida, Uttar Pradesh. Shiv Nadar is the founder of HCL Technologies Ltd. It offers services including software consulting, enterprise transformation, remote infrastructure management, engineering and R&D services, and business process outsourcing.

HCL Technologies is a leading global IT services company, working with clients in the areas that impact and redefine the core of their businesses. Since its inception into the global landscape after its IPO in 1999, HCL focuses on 'transformational outsourcing', underlined by innovation and value creation, and offers integrated portfolio of services including software-led IT solutions, remote infrastructure management, engineering and R&D services and BPO.

HCL takes pride in its philosophy of 'Employees First, Customers Second'. By engaging HCL employees in a way that allows them to deliver business value – whether it involves enterprise application services, IT infrastructure management, custom application services, engineering and R&D services, business services or enterprise transformation services - they turn technology into a distinct competitive advantage their our customers.
HCL has offices in 31 countries to provide services across industry verticals, including aerospace & defense, energy & utilities, independent software vendors, manufacturing, professional services, servers & storage, automotive, financial services, industrial manufacturing, media & entertainment, retail & consumer, telecom, consumer electronics, government, life sciences & healthcare, medical devices, semiconductors, and travel, transportation & logistics.

HCL Enterprise developed India’s first indigenous micro-computer at the same time as Apple. The company has been a leader in technological innovation with many world firsts to its credit, including the first Relational Database Management System (RDBMS) in 1983, client-server architecture in 1984, and fine-grained multiprocessor UNIX installation in 1989. HCL Enterprise’s R&D division was spun off as HCL Technologies in 1991 to mark its advent into the software services arena.

HCL Technologies has portfolio of services including software-led IT solutions, remote infrastructure management, engineering and R&D services and BPO. HCL has global partnerships with several leading Fortune 1000 firms, including several IT and technology majors. It provides services to industry sectors including financial services, manufacturing, aerospace & defense, telecom, retail & CPG, life sciences & healthcare, media & entertainment, travel, transportation & logistics, automotive, government and energies & utilities.

HCL leverages its extensive global offshore infrastructure and network of offices in 26 countries to provide holistic, multi-service delivery in key industry verticals including Financial Services, Manufacturing, Consumer Services, Public Services and Healthcare. HCL Technologies is leader in providing IT services to its clients restructuring the core of their businesses.
3.6.5 Tech Mahindra Ltd.

Tech Mahindra Limited is an Indian multinational provider of information technology, networking technology solutions and business support services to the telecommunications industry. Tech Mahindra is a part of the Mahindra Group conglomerate. Tech Mahindra is a leading global systems integrator and business transformation consulting organization. Tech Mahindra has recently expanded its IT portfolio by acquiring the leading global business and information technology services company, Mahindra Satyam (earlier known as Satyam Computer Services).

Anand Mahindra is the founder of Tech Mahindra. It is headquartered at Pune, Maharashtra, India.

The combined entity has 95,729 employees across 51 countries, servicing 632 customers globally. It has 15 overseas offices for BPO operations and software development. Its revenue for 2012-13 was put at $2.7 billion (Rs. 162 billion).

Tech Mahindra’s activities spread across a broad spectrum, including Business Support Systems (BSS), Operations Support Systems (OSS), Network Design & Engineering, Next Generation Networks, Mobility Solutions, Security consulting and Testing. The “solutions portfolio” includes Consulting, Application Development & Management, Network Services, Solution Integration, Product Engineering, Infrastructure Managed Services, Remote Infrastructure Management and BSG (comprises BPO, Services and Consulting). Tech Mahindra has implemented more than 15 Greenfield Operations globally and has over 128 active customer engagements mostly in the Telecom sector. The company has been involved in about 8 transformation programs of incumbent telecom operators and an array of service offerings for TSPs, TEMs and ISVs.
Acquisition of Satyam Computer Services Ltd.

After the Satyam scandal of 2008-09 Tech Mahindra bid for Satyam Computer Services, and emerged as a top bidder with an offer of Rs 58.90 a share for a 31 per cent stake in the company, beating a strong rival Larsen & Toubro. Through a subsidiary Mahindra Satyam has emerged victorious in Satyam sell-off, a company probably two times its size in number of people. This was one of the largest merger deals in India’s tech industry.

Merger with Mahindra Satyam

Tech Mahindra announced its merger with Mahindra Satyam on March 21, 2012, after the board of two companies gave the approval, to build a 2.5-billion $ IT Company in India. On June 25, 2013, Tech Mahindra announced completion of Mahindra Satyam’s merger with itself to create nation’s fifth largest software services company with a turnover of USD 2.7 billion.

Services

IT Services- It offers various services such as solution integration, application development and management, consulting, application management, infrastructure management, and revenue management services.

Research and Development services- It provides technological solutions such as software development, testing, hardware development, network offering etc to leading telecom equipment manufacturers across the globe.
BPO- It also provides outsourcing services in the areas finance and accounting, HR Outsourcing, order management, contract management, inventory management, are among others.

3.6 FUTURE PROSPECTS OF IT INDUSTRY IN INDIA

Globalization has had a profound impact in shaping the Indian Information Technology industry. Over the years, verticals like manufacturing, telecom, insurance, banking, finance and lately the retail, have been the growth drivers for this sector. But it is very fast getting clear that the future growth of IT and IT enabled services will be fuelled by the verticals of climate change, mobile applications, healthcare, energy efficiency and sustainable energy.

The near future of Indian IT industry sees a significant rise in share of technology spend as more and more service providers both Indian and global target new segments and provide low cost, flexible solutions to customers.

By 2015, IT sector is expected to generate revenues of USD 130 billion (NASSCOM) which will create a transformational impact on the overall economy. IT spending is expected to significantly increase in verticals like automotive and healthcare while the government, with its focus on e-governance, will continue to be a major spender.

However, to achieve this growth, the sector has to continue to re-invent itself and strive for that extra mile, through new business models, global delivery, partnerships and transformation. A collaborative effort from all stakeholders will be needed to ensure future growth of India’s IT-ITES sector. They will need to rise up to the new challenges and put in dedicated efforts toward providing more and more of end-to-end solutions to the clients to keep the momentum going.
E-Governance

E-government is the application of Information and Communication Technology (ICT) by government agencies. Its use promises to enhance the effectiveness and efficiency of government and alter its relationship with the public. E-government is evolving through four stages: from posting information to a two-way communication, and from exchange of value to an integrated service and exchange. Introduction of Digital Governance is a way to ensure that common citizens have equal right to be a part of decision-making processes which affect them directly or indirectly, and influence them in a manner which best improves their conditions and the quality of lives.

The new form of governance will ensure that citizens are no longer passive consumers of services offered to them and would transform them to play a decisive role in deciding the kind of services they want and the structure which could best provide the same. ICT can influence the process of Governance in various ways and in varying degrees, from improving the current mechanisms of delivery of services to transforming the entire mechanism and the nature of services themselves. The role could be:

- Technical role, in terms of automation of tedious tasks earlier done by humans.
- Facilitating role, leading to participatory and all encompassing decision-making and implementation processes.
- Innovative role, involving new services and mechanisms to deliver these.

Computerisation of the Indian Railways’ Passenger Reservation System may be branded a success. Not only did it significantly increase the efficiency of the reservation process, but it also reduced corruption, increased rail staff morale,
and improved the quality of customer service. Beyond these reform components, it also gave Indian Railways (and India more widely) a more modern image, and it helped to build information age capabilities within the country.

**E-Parliament as a tool for fostering parliamentarian networks**

The declining confidence in political institutions, including legislature and laws calls for the establishment of a Parliament and government’s public relation strategy; then, this new dynamically changing environment will require new strategies for political planning and action. It is quite obvious that the press and electronic media make a contribution to making political decision making process more transparent as well as simplifying the political and legislative information to the ordinary citizen.

**Electronic Commerce**

E-Commerce primarily refers to buying, selling, marketing and servicing of products or services over internet and other computer networks. E-Commerce in India is just taking off with the advent of Railway and Online Air bookings and Net banking. The business is likely to grow to Rs 2300 crore by 2007 according to Internet and Mobile Association of India.

Increasingly the development of electronic marketplaces will become an intrinsic feature of any government’s success in a global economy. Electronic commerce allows efficient interactions among customer, suppliers and development partners cutting down on transaction time and reducing the costs of doing business.

The role of government will be to enable its business community to obtain the most valuable information and apply it in a timely manner to the production and sale of goods and services. However there are a number of legal issues related to E-commerce which need to be immediately addressed. Issues relating to taxation of
goods and services traversing over electronic networks have to be resolved without further delay.

The Ministry of Commerce is supporting “Electronic Commerce (EC) / Electronic Data Interchange (EDI) for Trade” project for facilitating international trade. The community partners of this project are various trade regulatory and facilitating agencies like the Customs Department, the Directorate General of Foreign Trade (DGFT)Ports, Airports, the Reserve Bank of India (RBI), Export Promotion Organisations (EPOs), Exporters, Importers, Agents, Container Corporation of India (CONCOR) and Banks.
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