CHAPTER 1

INTRODUCTION
INTRODUCTION

1.1 IT INDUSTRY IN INDIA

Information technology industry witnessed a tremendous growth over the past two decades. Computerization has become a much talked about subject in India and across the world. This scenario has boosted the pace of technological developments in the global IT market. It also diffused the usage of IT products to elevate the business standards. Most of the companies, irrespective of the scale of operations, went in for converting their manual operations into computerized versions. With abundant human resources of sky-scraping quality, India has occupied a pivotal role in the global IT market. Because of the cost advantages in the development of software solutions, all developed economies are showing enthusiasm to outsource in India. The successful software entrepreneurs such as Narayan Murthy, Ramalingaraju, Sabeer Bhatia, Ajeem Premji, the Indian software tycoons, have been recognized by the global software industry. Astonishingly software exports from India have grossed Rs. 47,500 Cr. in 2002-2003. In 2003-2004 it is expected to grow by 30% according to survey reports from NASSCOM. The ITES (information technology enabled services) exports have gone up to Rs. 10,500 Cr. this year and it is expected to reach Rs. 15,500 Cr. by next year. And by 2008 it is estimated to reach Rs. 72,900 Cr. The Ministry of human resources also estimated that there would be need of 2.5 Million IT experts by the year 2008. The Indian IT sector has proved to be the country's fastest growing segment, even in the recession it contributed its part to the gross domestic product of India. The software and services industry, a major component of India's IT sector, showed significant development, better than other industries in the country. India continued to be a convincing investment destination to the other part of the world. Outsourcing of IT requirements by leading global companies to Indian leaders also picked up its pace during 2002-03.
The performance of the Indian IT sector is determined by its growth in the following areas:

- IT software and services exports
- IT-enabled services
- The domestic IT market
- Telecom infrastructure

**IT software and services exports**

Software and services exports continued to remain on top of the IT industry's revenue table. The software exports sector has generated the revenue of Rs. 47,500 Crs. during 2002-03, a jump of around 30 percent, as compared to the previous year. In terms of software services delivery, offshore project revenues grew by a 49 percent as compared to on-site revenues, growth of which was 12 percent during 2002-03. In terms of geographies, Indian IT companies began tapping regions outside the US market, even though the country remained the largest user of software solutions from India. The revenue contributions by the US market continued to rise because of the large number of ITES/BPO projects getting outsourced to India.

**IT Enabled services (ITES)**

NASSCOM estimates indicate that during 2002-03, the IT-enabled services segment grew by 65 percent. Revenues from this sector increased from around Rs. 71 billion in 2001-02 to approximately Rs. 117 billion in 2002-03. Compared to other competing ITES nations such as Ireland, the Philippines and China, India could mobilize the bulk of the global ITES business because of its advantage in price, performance, and quality proposition.

The ITES industry spread in to all most all India's leading cities. Some of the leading centers of these services are NCR, Mumbai, Bangalore, Chennai, Kolkata, Hyderabad, Kochi, Ahmedabad and Pune. Some of the key players in this market are AMX, Convergys India Services, GE Capital, Standard
Chartered, Dell, Healthscribe India, EXL Services, Daksh eServices, Wipro Spectramind, 24/7 Customer, among others.

Some of the key ITES services lines include:

- Customer care
- Billing services
- Accounting
- Transaction document management
- Telesales/telemarketing
- HR hiring/administration
- Web sales/marketing
- Database marketing
- Transcription
- Tax processing
- Benefits administration
- Biotech research

**Domestic IT market**

The domestic IT market touched revenue of Rs. 317 billion during 2002-03, of which software and services accounted for around Rs. 137 billion. The IT market during 2001-02 has been worth Rs 291 billion. The Indian software and services sector continued to lag behind the export segment on account of issues such as higher piracy levels, pressure on software prices and lower level of IT spending for domestic companies. The growth in the domestic software market fell to around 13 percent during 2002-03 as compared to 2001-02 when it was at around 18 percent. A reduction in IT spending by key segments such as banking and manufacturing is stated to be responsible for this trend.

**Telecom infrastructure**

India's telecom infrastructure has become a priority area for the country, with the Government focus on making it world class. The turnover of the sector is estimated to have crossed US $ 9 billion in 2002. Since 1999, when the New Telecom Policy was introduced, the telecom market has witnessed the following changes:

- International Long Distance, National Long Distance and Basic Telephone services have been opened up for free competition
ISP have been granted licenses freely and are allowed to set up own international gateways and submarine cable landing stations. Internet telephony has been permitted Revenue sharing has been introduced

The Indian ITES-BPO industry – Overview

The Indian ITES-BPO industry was a key driver of the overall Indian IT software and services sector during 2003-04, recording revenues of US$ 3.6 billion in that period. According to recent studies by the National Association of Software and Services Companies (NASSCOM), the Indian ITES-BPO industry grew at about 54 percent during 2003-04.

Trends defining the Indian ITES-BPO market

The key trends that are defining and strengthening the Indian ITES-BPO market and will create future business opportunities for the industry include the following:

- **Increasing maturity:** The industry is rapidly gaining maturity and consolidation, following a large number of mergers and acquisitions during 2002-03. The trend towards maturity has been escalated by the entry of traditional IT services players, who have added the ITES-BPO portfolio to their existing offerings in order to provide customers with a complete umbrella of end-to-end services. The idea is to leverage the synergies between their ITES-BPO operations and the IT services offerings.

- **Growth in multiple vendor and BOT contracts:** The Indian ITES-BPO industry is witnessing an increase in multi-vendor and build-operate-transfer (BOT) contracts which offer customers advantages such as low risks, scalability and competitive pricing.

- **Expansion of the services footprint:** Indian ITES-BPO vendors 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

- **Higher value add offerings**: A number of Indian ITES-BPO vendors are moving up the value chain to offer high-end services such as equity research and analytics, insurance and technology support and development

- **Vendor polarization**: Growth within the ITES-BPO segment is getting centered on the larger players that can offer clients benefits such as scalability, delivery capability, track record, customer referrals, etc. Industry observers believe that by 2005 the Indian BPO industry will have eight to ten US$100 million third-party BPO companies. This will give companies a critical mass to compete against multinationals such as EDS, Computer Sciences Corporation (CSC), and Accenture. Further, it gives prospective clients enough confidence to trust them with larger contracts

- **Expanding capacity**: The Indian ITES-BPO industry, including MNC and third party service providers have been expanding their capacities during 2003-04. The number of seats has increased from 140,000 at the end of March 2003, to around 210,000 in March 2004. Captive units account for almost 65-70 percent of the existing capacity

**IT software and services Market**

IT software and services market in India continued to be driven by exports, which exhibited robust growth during the 2003-04 period. The export segment, which had generated the revenues of Rs.461 billion in 2002-03, accounted for around 60 percent of the total revenues of the IT industry that year. Software and services exports meanwhile are expected to cross Rs. 555.1 billion mark in 2003-04, a jump of 20.4 percent in rupee terms and 28 percent in dollar terms.

The high growth of the export sector, however, will not be matched by the domestic market, which is expected to log in momentum of around 15
percent, down from 23 percent in 2002-03. In terms of revenues, the domestic market will cross the Rs. 154 billion mark, with the packaged software segment logging in Rs. 21 billion worth of revenues and the software services touching Rs. 100 billion levels.

The Indian software and services market continued to build momentum, as an economic upturn began sweeping the global geographies. The sector, which had managed to sustain growth during the challenging 2000-02 periods, built up steam once again, reverting gradually to its performance levels prior to the global economic recession.

- Close to 60 percent of the revenues of the overall IT software and services market were accounted for by exports, which jumped from Rs. 461 billion in 2002-03 to an estimated Rs. 555.1 billion in 2003-04.
- The growth of the domestic software and services market lagged behind at around 15 percent in 2003-04, down from 23 percent in the previous year.
- The ITES/BPO industry grew at a rapid fire 52.3 percent during 2003-04, accounting for around 29.3 percent of the overall IT export revenues in this period.
- During 2002-03, the financial services sector accounted for the largest share of Indian software and services exports. IDC studies indicate that IT spending by US banks will touch US$ 60 billion by 2007.
- The telecom vertical accounted for around 13 percent of Indian software and services exports during 2002-03. The manufacturing segment contributed 12 percent of revenues to overall IT export earnings during 2002-03, while

- Healthcare accounted for an estimated five percent of Indian software exports in 2002-03.
- India continued to expand its presence in two of the 10 major IT services lines. Custom application development and maintenance and applications outsourcing accounted for nearly 88 percent of total software exports in 2003-
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04. More recently, Indian companies have begun moving up the value chain and are offering services in IT consulting, systems integration, network consulting and integration processing services and IS outsourcing.

- The Indian software and services industry’s global delivery model veered towards offshore outsourcing, which is expected to account for around Rs. 33,010 Cr. in 2003-04. On-site services will touch Rs. 22,500 Cr. in the same period.

- The Indian software and services export sector has a pyramid structure, with a handful of companies with revenues exceeding Rs. 10 billion (US$ 210 million). The number of companies with revenues above Rs. 1 billion (US$ 21 million) has grown from 52 in 2001-02 to 70 in 2002-03.

- Tier 1 companies within the industry (top five firms) account for about 32 percent of total software exports.

1.2 The global scenario

Business intelligence majors such as IDC state that the IT services market will grow at a CAGR of 5.4 percent over the next five years. Some of the other developments defining this segment include the following:

- A high growth IT outsourcing industry which will maintain a momentum of five percent in 2003-04. Application outsourcing will remain the focus within this segment

- A high growth Application Service Providers segment which is forecast to grow at a healthy five year CAGR of 25.3 percent

- A return to moderate growth of the custom applications development segment, which was the worst hit by the offshoring phenomenon

- A mild recovery by the US IT services market, which is expected to achieve growth of around two percent during 2003-04 and around six percent by 2005.
• A healthy growth of around 8.6 percent in the IT services market within the Asia Pac region, and a five year CAGR of 12.6 percent

• High growth rates of IT services in the rest of the world (including central and Eastern Europe, Middle East and Africa).

• The rise of offshoring as a mainstream strategy based on overall savings of 30-60 percent for outsourcing companies. According to Morgan Stanley, the percentage of CIO's outsourcing software applications offshore is likely to triple to 28 percent from 8 percent in 2003. IDC expects offshore volumes to double to US$16 billion in 2004 and jump to US$ 40 billion by 2007.

1.3 Trends in Indian software and services exports

The Indian software and services market continued to remain export oriented, with sales to overseas customers accounting for the bulk of the sector's turnover for 2003-04. While software and services exports grew at a healthy 26 percent, logging in revenue of Rs. 461 billion during 2002-03, the numbers were estimated to touch Rs. 55.51 billion in the 2003-04 periods. This represented a jump of around 20.4 percent in Rupee terms and 28 percent in US dollar terms.

It was seen that:

• The contribution of the software and services export segment to India's overall invisible receipts rose from 59 percent in 2002-03 to around 73 percent in 2003-04.

• The Indian software and services industry continued to focus on North America, which remained the largest market for the sector.

• The other key export destinations for Indian software and services companies were the European and Asia Pac regions. The industry, in fact increased the export contribution from the European geo during 2003-04. The UK, Germany and France together accounted for over 75 percent of Indian exports to Europe.
• Within the Asia Pacific region, Japan, continued to be the largest market for Indian software and services players, followed by China, Hong Kong, Taiwan and South Korea.

• On the verticals front, the Indian software exporting companies focused primarily on the financial services segment, which leads the tally with an overall revenue contribution of around 39 percent during 2002-03. Companies developed banking solutions centered around the enterprise integration, security and enterprise portals, knowledge management and CRM (Customer Relationship Management).

• The telecom sector, meanwhile accounted for 13 percent of software and services exports in 2002-03, followed by manufacturing, at 12 percent, healthcare (5 percent) and utilities and retail.

• In the area of global service lines, India continued to play in two out of the ten major IT services segments. As in the past, custom application development and maintenance and application outsourcing services accounted for nearly 88 percent of the total software exports from India. However, there were some signs of movement in the higher end of the software services spectrum, with Indian software majors scaling to offer solutions in the areas of IT consulting and systems integration.

• Trends also indicated that the offshore delivery model became the preferred business model for the Indian software and services industry during 2003-04, with offshore revenues, as a proportion of the total revenues jumping by approximately 24.4 percent, as compared with 14.20 percent for onsite revenues over 2002-03.
Future trends and opportunities for the Indian software and services industry

According to leading global business intelligence analysts, the offshore outsourcing market, still in a nascent stage, is expected to witness substantial growth over the next few years.

- Forrester Research estimates that only 3-4 percent of the Fortune 500 companies offshore more than 10 percent of their IT services spending. Considering the mammoth IT budgets of these companies, there is a vast untapped potential that the segment offers Indian software and services vendors.

- Industry watchers are hopeful that industry pricing will remain relatively stable over the near-to-intermediate term and that Indian services firms may even be able to raise prices.

- Supply side factors indicate that India will continue to have a significant pool of “tech-ready” and “tech-trainable” students over the next few years. It was estimated that during 2003 around 375,000 students joined up engineering or other technical programs. This was in addition to the 500,000 non-engineering graduates that passed out of India's higher education institutions.

It is expected that over the next few years, Indian software and services companies will adopt a global delivery model based on four components: onshore (same country as client); on-site (at the client site), nearshore (country near to client country) and offshore (based in India)
Figure 1.1

IT Market in India: Software and Services

Source: Nasscom
Composition of IT Market in India

**2002-2003**
- Domestic Software and Services: 11,272
- Hardware, Peripherals 
  & Networking: 15,880
- Training: 1,150
- Software and Services Exports: 46,100

**2003-2004E**
- Domestic Software 
  and Services: 13,150
- Hardware, Peripherals 
  & Networking: 17,226
- Training: 1,200
- Software and Services Exports: 55,510

Source: DQ, NASSCOM
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Figure 1.3

India's Exports to North America

Figures in Rs. crore

<table>
<thead>
<tr>
<th>Year</th>
<th>Value (in Rs. crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998-99</td>
<td>6.629</td>
</tr>
<tr>
<td>1999-2000</td>
<td>10.630</td>
</tr>
<tr>
<td>2000-2001</td>
<td>12.761</td>
</tr>
<tr>
<td>2001-2002</td>
<td>24.401</td>
</tr>
<tr>
<td>2002-2003</td>
<td>67.10</td>
</tr>
<tr>
<td>2003-2004</td>
<td>69.05</td>
</tr>
</tbody>
</table>

Source: NASSCOM
Figure 1.4

India's Exports to Europe

- Figures in Rs. Crore
- India's total exports (value)

Source: NASSCOM
I.T. Applications

Adaptation of information Technology ensures not only the sophistication in the work place, but also the completion of projects with in the time scheduled and below the cost. Almost all the service industries like Banks, hospitals, tourism, financial institutions etc. have computerized their operations to offer better services with least possible cost. All Governmental bodies also computerized their services. The majority of the state Governments have announced their I.T. policies in the agenda and they are making all the arrangements for E-Governance. Internet and Intranet explosion brought the paradigm shift in the information storing and exchange. A.P. Govt. opened many E-Seva kendras with an enormous network. India also developed super computers like Param 10,000 and Aunupam, which are considered powerful than American Krey computers.

Emergence of H.R. Management problems:

In parallel with the industry development, problems of managing Human Resource are also greater than before. Empirically speaking, management of knowledge workers has become a thorny task for the human resource department. This is because of the poor technical knowledge of H.R. Managers. They do not know the technical process of the projects. As software engineers are fully professional, they are questioning the ability of H.R. managers. Even in the educational qualifications, software engineers are better qualified in technology than the HR managers. This scenario increased the intensity of the problem. To solve these problems, the project managers have taken away the important areas of management from H.R. Managers. So, in the Human resource strategy management the importance of H.R. Managers is reduced. They are forced to consult employees and other technology managers in the organization for all the decisions.
Change of structure:

I.T industry is the best example for understanding the structural changes. In every information technology company there is either project structure or matrix structure but not the traditional structure. This is because; the business in I.T. is done only on projects form different clients. So the structure of the project teams has to be modified for every new project. In this situation, to get the compatibility and harmony between project management and functional management, all companies favored the matrix structure. In traditional structure, functional managers will have more power of regulating the work progress. The same is not feasible for I.T. Companies, as work is fully technology based and restricted to specific project only. Therefore, lot more structural changes have taken place in managing Human Resource to meet the escalating standards.

Role of management personnel

Role of management personnel is reduced to a very low because of frequent technological changes. Only bird's eye view control is given to management people and the direct control is vested on to the technical managers. This increased the distance between employees and H.R. manager. Interaction of HR managers with the employees is reduced and it is limited to only Human Resource Development programs.

Emergence of work teams

Team is a group of small number of people with complementary skills who strive for the common objective. The usage of the team concept in the industry is more than in other industry. Almost all IT companies developed the teams and imparted the team culture in their employees. Teams are made self-managed; they have autonomy in procuring their required resources, planning the work and it’s allotment, execution and control of the planned activities.
Some companies are using the X-teams (cross teams) and many others are using the virtual teams. The success rate and the effectiveness of teams are very well recognized in IT industry. The implementation of team concept helped all the companies to multiply their productivity by increasing the quality of the output.

**Employee Partnership**

In the last decade there was a concept by name Workers Participation In Management that was introduced to facilitate the respect and the regard. But now all are talking about the latest concept of employee partnership. Under this concept employees of the company are made partners of the company by offering ESOP's (Employee stock Option Plan). It is the IT companies who popularized the concept of ESOP's after the introduction by Pepsi. By making employees partners, the feeling of accountability is increased. Shift, in the mindsets of employees, has taken place from 'our responsibility' to 'my responsibility'. Because of this strategic change, employee retention has become very easy task. Drain of intellect in to competitors companies is limited to some extent. Attrition rate also has come down to satisfactory level.

**Software engineers in boom and recession.**

Software engineers are treated as son-in-laws in the periods of boom and they are getting completely opposite treatment in the times of recession. Strategic planning itself went wrong in procurement of human resource in boom periods. They use to recruit more number of people than actual needs. It is because; the attrition rate in IT is more than any other industry. So to fill the future vacancy positions, management used to take additional number of employees. Another reason for this is, in IT industry human resource procurement will be based on not only the present needs but also future needs (future projects). Because of these reasons, at any particular time, the volume of human resource will be more than what actually needed by the company.
But problem comes in recession times as margins come down to very low and everybody will be forced to go for downsizing. In recession times all companies go for the H.R. audit to control the cost. So they plan for employee retrenchment programs on the basis of some funny appraisal reports. This will be very embarrassing situation for people who are asked to leave the company. So, some strategic thinking is needed to rectify this problem and stop the hasty recruitment and selection policies.

Need for technocrats:

IT industry needs technocrats, not just technicians or just managers. Neither technical people nor managerial people alone can help in laying strategies for the growth and survival. One has to be expertised in both the disciplines. So transformation of technical people in to managerial abilities will fetch a positive result. It is very difficult and costly to transform a managerial person to the technical abilities to produce technocrats. So, strategies should be laid to impart the managerial skills to technical people to transform them as future executives. Vision & mission, along with the conceptual knowledge, should be clearly explained to all technical people to provide base for strategic thinking.

1.4 THE PRESENT POSITION OF INDIAN IT INDUSTRY

Today, the total world is coming forward to invest in India considering India as a future leader in global IT industry, which is expected long before. In the words of Paul S. Otettini, President, Intel said "he was not surprised over the big investments made by MNC's in recent times to expand their development centers in India. In addition, he announced that his company would increase its head count to 3000 from existing 1000 with in 2 to 3 years in India."

Accenture, the global consulting firm, intends to double its software and back office staff in the country to 2500 people with in two years while world largest IT firm IBM which has currently about 5000 people in India has plans to
boost its local operations in a big way. EDS, one of leading global IT sources, planning to range up its staff strength to 2600 in Gurgaon and Chennai centers.

Oracle, another global leader, is hiring people for different areas such as software development, product support, consulting and back office services and intends to be about 4000 people by the end of this year.

Why demand for India in the global level

Skills at low cost

Why this mad rush for the Indian software. Does it imply this global tech spending is booming? Answer to this question is yes and no. Uncertainty over the recovery of global economy increased the price competitiveness. And there is no better offshore destination than India as it has cost advantage. For instance, Indian companies can hire software engineers with two to three years of experience for about Rs. 20,000 per month while a guy with similar skills in US cost at least Rs 1,00,000.

The savings

A mind boggling 80% on the wage cost alone. Besides SE's here equally competent, if not more, and they are far more hard working than their counterparts in the USA. It is a common knowledge that a typical working day rarely stretches beyond 8 hr in US, while our guys here slog it out almost every day for 12 to 14 hours. Som mittal, President & CEO, Digital Global soft, says "when a job moves from USA to India the replacement is not 1: 1 but 1: 0.7. One Indian Engineer can do work equal to one and half American, thus helps to compress time to delivery, save more money and make business responses quicker.

Companies Of Quality

India is known for its quality and effective project management. To prove this, India is having highest number of CMM level 5 certifications, an indicator of best software practices in the world. About 50 Indian companies have obtained this highest level of certification.
Ashoka Soota, IT industry veteran and chairman of Mind treo consulting says, "I am surprised, what took them so long to understand this advantage that India offers? It was inevitable".

Amith Ray, Director, IBM global services India, says "recognizing the strength of Indian IT talent, IBM was one of the earliest MNC’s to establish an unique continuous of world class R & D centers and global delivery centers to create world class products.

**Competitive edge and challenges**

Though there are many MNC’s coming in to India and challenging Indian IT companies, it is not a cake walk for them to challenge and chase the Rs. 50,000 cr. and work force of 2 lakh IT industry. Mr. Banerjee of WIPRO says "in my opinion it will take at least two to three years for these MNC’s to mature the global delivery model. It is not an easy task to open shop in India and start executing prospect through global delivery. MNC’s have to learn the ropes, make investment and make required changes in sales delivery and marketing".

Today in global market arena our software companies like TCS, WIPRO, HCL and INFOSYS are not only competing with the global majors like IBM, EDS but also they are snatching jobs from large global clients. This forced MNC’s to cut their rates and achieve lower cost to meet the competition. Mr. Banerjee, President ESD, Wipro technologies, says "there is no doubt that we have disrupted global IT services industry to our advantage".

The reaction of MNC’s will prove this. Mr. Chaitanya, Head Indian delivery center, Accenture accepted that "our operations in India are price-competitive with those of Indian based IT companies".

Another reason for competitive edge is that customers have had first hand experience on offshore model and enjoyed its cost advantages provided by the Indian IT Companies. Customers who have limited budgets on tech spending are forcing MNC’s to offer solution at lower rates in which India is only choice.
Challenges

Since MNC’s have invaded Indian shore and fighting them on their own soil, they are posing more challenges. With MNC’s matching the prices offered by Indian companies there is bound to be a price war in the market. Indian IT leaders have already anticipated pressure on their margins. Infosys in April in its guidance note said that its profit growth in the current financial year would be lower. Similarly Wipro also warned of drop in profit margins because of wage inflation, higher sales and marketing budgets. Now the companies should depend on volume not price to have growth. Mr. Kiran Karnik, President Nasscom, says "the profit margins are clearly not sustainable in the long run, they should also spend more on marketing and brand building exercise which hurts again the margins which are already under pressure".

Aggressive hiring by MNC’s has put pressure on Indian IT companies to retain its talent. Salaries in MNC’s are 20 - 30 % more than Indian companies. Jobs at MNC’s are lucrative. They have already attracted the employees of Indian companies. The table below will explain the strategies of MNC’s as they are planning to increase their head count.

TABLE 1.1
Future plans of companies to increase the number of employees

<table>
<thead>
<tr>
<th>Companies</th>
<th>Present Man-Power</th>
<th>Target (in the next 3 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accenture</td>
<td>1100</td>
<td>2500</td>
</tr>
<tr>
<td>CSC</td>
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<td>IBM</td>
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<td>Intel</td>
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</tr>
<tr>
<td>Oracle</td>
<td>2500</td>
<td>4000</td>
</tr>
</tbody>
</table>

1.5 Strategic Human Resource issues:

There are number of issues which should be addressed in strategic human resource management. Above every thing, the alignment of strategic HR with business strategy is a challenge for strategic planners. In the ever changing IT industry, linking strategic HR practices to overall organization performance is very much needed practice.

Following are the major strategies of HRM issues as per Delery & Doty (1996)¹

- Internal career opportunities.
- Formal training systems.
- Appraisal measures.
- Profit sharing.
- Employment security
- Employee voice mechanism.

Others included
- Employee ownership.
- General information sharing.
- Symbolic egalitarianism / status differentiator.
- The use of dispute resolution process.
- Attitude assessment.
- Labor management participation.

Christopher Mabey & Graeme salaman
- Managing change.
- Performance Management.
- Culture, organizational performance and human resource strategies.
- Training & development strategies.
- Industrial & work place relations.
- Learning organizations.

1.6 Strategic HR Practices in Indian I.T. Industry

With the increase of sophistication in working environment and severe competition among I.T. Companies, a Paradigm shift has taken place in Information Technology Management. With the result, many strategic changes have taken place in the Human Resource Management. In the following paragraphs a brief analysis is presented on what is happening in Indian I.T. Industry.

1. Recruitment Strategies

In the present era getting wired is the ultimate strategy, which we call as E-Recruitment. The recruiters and the job seekers are seeing the web as their 'Kalpa vruksha'. Rather than scanning the news papers for job advertisements and looking in to other traditional means. The past couple of years witnessed a spurt in the number of career sites with India specific sites alone numbering 30. At the global level there are more than 240,000\(^2\).

However, how far is the trend relevant in a country like India, where the infrastructure is not on par with the international standards? Many companies stopped giving their street address, example BFL Software & Aditi Technologies just give their email address where resumes can be posted. Another noticeable change is the companies now host a site and provides a link to the career section on its site.

As K.R. Suresh, Head HRM, BFL Software says “we provide a link on our web sites to the career section we have received a great response from it. It helps us in maintaining a database of prospective candidates”\(^3\).

But sites have to improve and provide more specific segments and also have the Quality resumes in its database, which is considered as USP of career sites.

E. Abraham Mathew President CIOL says, “Unless a site gives value added services besides hosting resumes, there is no scope for success”.

**Future of Career Sites**

What will be the future of these career sites? In coming years-online recruitment will be the big thing. Sanjeev Bickchandani of Naukri.Com says, “we expect a double turnover and traffic each year for next three years”. This site will have 5000 jobs listed at any point of time. Most sites offer free posting of resumes with revenue being targeted from ad’s and corporate memberships.

**2. Training Strategies**

With the emergence of Information Technology, the training modes and methodologies have drastically changed. Now-a-days E-Learning is being viewed as an increasing competitive weapon. “The dynamism of skill enhancement requirements will force training managers to evaluate and adopt virtual class rooms”, says Joseph Chacko, head operations, education services, Tata Infotech. In addition, he says “online learning amounts to the clearly visible paradigm shift in the methodology and acceptance of new modes of training”.

The India online learning market scenario is dominated by IT training with non-IT training is yet to establish. The reason for this is twofold, according to Shantanu Prakash CEO, Educomp Datamatics; he says, “Except in the field of IT training, there are very few content creation companies available and fewer solution providers, also setting up an e-learning site is an extremely complicated task.

In India training majors like NIIT and Aptech have taken e-learning initiatives. NIIT has netvarisity.com and Aptech has aptechonlinevarsity.com. They provide courses ranging from computer fundamentals to designing web pages to Java. Though the e-learning market is increasing day by day there are some serious problems, which are identified by the service providers. The problems are Regulations, Bureaucracy, Poor infrastructure, Limited bandwidth and slow download speed. These problems must be resolved to facilitate the growth of e-learning market. The bigger problem than this is the mindset of Indians. They don't believe in online training. They believe that the education will be best when it is received from the teacher who drills into students with required repetitions or personal attention or even punishing students.

However, these could be the things of past as people increasingly realizing the advantages of e-learning. Experts say that online training can enable a 50% of time saving and a 40 - 60 % cost saving compared to regular classroom training. More than everything, it is convenient - students can effectively learn by sparing some time wherever they are.

Another paradigm shift in training is the emergence of 'Network Learning' or 'Inter-organizational learning'. According to this system of learning, group of organizations come together and forms a network of learning. As each organization will be effective in one specific area all organizations can learn and get specialized in almost all areas. The polarization of expertise of various organizations is the key factor for the success of network learning system.


Organizational performance, team performance and individual performance are all critical to the survival and growth of an organization. So, performance management system will play a key role in Strategic Human Resource Management of Information Technology Industry.
Performance management in I.T. Industry

Is performance evaluation system in the industry effective, To what extent the appraisers are trying to get the truth in to the analysis. In the views of Prabhakar Kamath ,a consultant with P3HR Solutions 4, appraisers who work with employees are the best judges of employee performance. But in his observation they are very busy in hiding themselves from talking to employees about the true happenings and their observations. His experience with a shopfloor manager explains it more elaborately. Manager, who could not complete dozen of appraisals in fortnight, completed his all appraisals in one day. When Kamath asked for how he could able to complete all the appraisals in one day, the manager answered, “I was traveling to Mumbai and the flight got delayed by two hours and so I could clear the all appraisals”.

Looking at this example, how can a performance evaluation system be successful? How can supervisors have conviction to deliver the rewards to the appraisee?

If the performance evaluation systems have to serve the purpose, there need to be an appropriate and timely feedback on performance which needs timeliness and record keeping of the employee performance continuously.


Every company has to develop effective and attractive career paths to retain good employees. Most of IT companies, because of poor vision, fail in this matter which results in increase rate of attrition rate, which can’t be controlled after some stage. But companies with vision are providing their employees fair chances of continuing. Nilekani, CEO, Infosys Technologies says, “every employee who is selected will have equal chance of becoming chairman of the company if they meet expectations continually”.

Along with high growth rate most organizations in software industry are experiencing a common problem, which is high employee turnover rate. They are increasingly finding it difficult holding on to experience. In fact, large numbers of organizations are creating separate departments, which are given responsibility of recruiting employees at a pace to match the high attrition rate.

Employee turnover rate is an indication of threat to the productivity, stability, functioning and development of organization. Salaries keep raising, the facilities keep improving and yet employees continue to leave the organization. As such it can be said that employees are leaving not only because of monitory reasons but also many non-monetary reasons. When their expectations miss-match, people start thinking of leaving. A solution for this problem is introduction of family concept and not just organization concept in Human Resource management. Sugate Mitra, Head (R&D) NIIT, says "it is much easier to prevent the thought of leaving than to persuade an employee to withdraw a resignation. It needs sensitivity, understanding, friendship and respect. Most of the people in India do not know about these things. They think that they are a waste of time and effort.

5. Knowledge management strategies:

"Mere Knowledge is not power. Creating, sharing and acting on knowledge is power". Knowledge management over the past couple of years gained prominence. However the use of knowledge management can be traced as back as the society. Rishi Veda vyas converted the tacit knowledge of ages into explicit by writing the Gita. In the contemporary business world people today are using knowledge management to justify that further computerization would deliver the benefits of increased productivity. The realization of the fact that organization's knowledge provides a synergistic advantage. This has led to various knowledge-based systems and knowledge acquiring and storing techniques. It is not just cybernetics, it is a business philosophy. It is an emerging set of principles, processes, organization
structures and technology application that help people share and leverage their knowledge to meet their business objectives.

Anderson consulting defines knowledge management as "the systematic process of acquiring, creating, capturing, synthesizing, learning and using information, insights and experience to enable performance. In this way, KM is the engine that transforms ideas into business value". According to some authors, KM is not a domain of HR or IT but a strategic development issue. Survey conducted by Davos Economic Forum among C.E.O's in USA to understand their priority areas, 94% CEO's mentioned the Globalization, 88% quoted the knowledge management, 79% mentioned the cost reduction and 78% mentioned global supply chain. According to Dr.Dede Bonner, President New Century Management Inc, the number of chief knowledge officers (CKO) is growing fast. Who are the focal points to leverage the organization knowledge into tangible business results and to gain competitive market advantage. The process of knowledge management involves capture; organization and storage, distribution or sharing and application or leverage. Computer conferencing has special significance for KM for the simple reason that when a team uses computer conferencing to collaborate a permanent, sharable, record of what they write and send to each other is recorded. That record captures the knowledge that the team created and apply to its work and is the basis for managing teams knowledge.

6. Change Management Strategies

The notion of continuous improvement has increased the frequency and pace of change. Change is only thing, which is constant in business strategies. Businesses, which can't change, will perish soon. But to what extent it is possible for organizations to initiate change in to a proactive and purposeful manner.

Why do the simplest of change interventions so quickly become problematic and unworkable? Why within the same organization people will have different assessments of the same change initiative. To answer all the questions strategists have to identify and address the assumption of their employees.

Individuals generally feel change as more threatening than desirable. Research by Dopson and Stewart (1993)\(^6\) found middle managers in UK more resistant to change in the public than private sector. They linked change more negatively. They saw change as caused by a political decision rather than competitive strategy. And they felt it as abnormal. So, these assumptions of employees should be addressed properly to manage the resistance.

In today's information technology industry there are two major changes occurring, one is **cultural change** and the other one is **structural change**. First the cultural change, cultural change is often prescribed but more difficult to achieve in practice. What Payne (1991)\(^7\) calls "**underlying values or implicit cultures are somewhat difficult to shift and usually require a heavy investment in education and training over a sustained period of time.**"

The second, which is noticed more, is structural change. The link between strategy and structure is well established in the literature starting from Chandler (1962)\(^8\). He argued convincingly that structural change is triggered by an organization's inability to fully realize the strategy; it is following due to administrative deficiencies caused by a mismatch between the new strategy and existing structure.

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At the workplace level, early organization analysis in the UK (Trist et all 1963)⁹ had an impact on programs to structure under the 'Quality of Working Life' (QWL). Cameron et al (1992)¹⁰ reports that despite some resistance, the team concept is spreading rapidly in industries like electronics and computer, aerospace etc. team concept now extended to the concept of x-teams and virtual teams. Because these concepts are more suitable for IT industry. Therefore, almost all IT companies are following these structural change strategies to gain competitive advantage.

Another important work place change is the death of 9 to 5 working hours; it is nothing but introduction of Flexi work. Under this system employees are given freedom to choose their convenient working hours especially in IT industry work is done on projects, which will be divided by work break down structure (WBS) in to assign work packages. The work packages are the individual jobs, which will be later interfaced one by one to complete all the modules and finally the project. So, this type of work structure allowed strategist to think about Flexi work where employees can work on their convenient working hours.

7. Relations Management Strategies

Today in IT industry, the biggest challenge faced in Relations Management is the relation between corporate business managers and IT managers. Both the groups are unable to understand the others expectations, views and objectives. It is because both are not aware of other's concepts. Consultants are working hard to bridge this gap. As it is a strategic problem, lot of attention and investment is required to train both the groups in corporate management as well as technology management. The following paragraphs will concentrate on how to cope with this problem.

1.7 Realignment of Information Technology as a Team Player

Old paradigms die-hard. The old paradigms of IT are inflexible, reactive processor of customer requests must yield to a new attitude of involvement and teamwork. No longer should IT staff develop systems and solutions based on system requirements framed by analysts who are not directly working with the applications. Instead, IT staff should be involved in customer applications as early as possible, visiting customer sites to learn first hand information about what are the requirements and how to educate end-users.

Transform IT methodologies

If IT hopes to develop relevant and successful applications, it has to respond much faster than ever before to emerging business needs. Traditional methodologies simply will not meet rapidly changing business requirements. Chief information officers (CIO's) who grew up in technocentric data centers must learn the new paradigm. CIO's who rose to current positions from non-IT disciplines must familiarize themselves with both old and new complex technologies to be effective in discharging their role as chief information officers.

Increase CIO participation in strategic planning

The appointment of a CIO alone will not bring about realignment of the organization. The role of CIO was created to bring together all information resources under one chief. Just as the chief financial officer is the chief executive in charge of the financial health of the business, the CIO is responsible for the million of dollars already invested and million more that will be invested in IT. So, the participation of CIO in strategy formulation must be ensured and also the relationship between CEO and CIO increased. CIO's should work close to the CEO's to represent information to the policymaking.
Over come the techno illiteracy crisis

Business executives and technical managers must learn to speak each other's languages. CEO and other business executives must overcome the techno-illiteracy problems by becoming comfortable with technical terms and concepts. IT managers intern must become familiar with at least the elementary business concepts and they must use business concepts to solve technology and project management problems.

Creating an environment where mistakes are welcomed

Driving fear out of the work place is one of the key ingredients to create a successful work environment. Creativity and efficiency will come only on the basis of trial and error experimentation method. If this is true, committing mistakes is a common phenomenon, which should be welcomed to initiate accurate learning. As Henry Eric Firdman 11, former director of Strategic Information Systems at pacific Bell, notes "IT is a statistical process and statistics tell us that process some times fail. One of my challenges is to prepare senior management for the potential failures of some systems."

Build the trust

Let us understand what Tom Peter says in liberation Management, "Trust is essential. Given project autonomy, mutual dependence, contact with outsiders and work away from home, an atmosphere of trust is an absolute must and more of stumbling block to future organizational success than, say, getting the IT schema right". The type of corporate environment we are striving for is to build up on unprecedented layers of trust: between corporate and technical management, between company and its partners, between company and is customers. With out trust there is no harmony, cooperation, well-being and even existence.

Have fun in the work place.

The biggest challenge of tomorrow's managers is finding the outstanding people to do the work. This is very much true in the IT field where the challenge is to find individuals with first class technical skills and management instincts. To attract, keep and motivate high quality work force, companies will have to create an environment of challenge, stimulation and fun. Employees persist in having fun on the job. Therefore, manager's job is to optimize, but not maximize, the opportunity for fun. That means creating small teams is essential because fun is impossible in vacuum. In addition, give them freedom from rules of thumb

Human capital valuation

Leaders in Indian IT industry are going for strategic revolution of Human Capital evaluation, which is the valuation of all the human Resources of the company. The model values the employees' future earnings ignoring the attrition. Infosys Technologies Ltd.(ITL) is the first Indian Company to go for Human Capital Valuation.

According to this model the following values will be calculated.

> Value of Human Resources
> Ratio of total revenue to H.R.Value
> The ratio of value added to HR value
> The ratio of employee cost to HR value
> The return on HR value

The above calculation will indicate the companies' maturity in strategic H.R. Management and consideration of HR in strategic thinking.
Developing India’s human resource is key to our progress. The most visible – and successful – demonstration of this is our IT industry. In this sector, human resources comprise both the raw material and the “technology”, and is therefore of prime importance. Availability of a sufficient number of high quality manpower is a key requirement to ensure the on-going and sustainable growth of India’s IT industry. It is in this context that NASSCOM was particularly delighted when the Department of IT initiated a Task Force on ‘strengthening the human resource foundation of the Indian ITES / IT industry. We at NASSCOM felt that this was not to be just one more of those reports, particularly as the Task Force comprised representatives of some of the leading ITES and IT companies in India, in addition to representatives from various government bodies and educational institutions.

NASSCOM, as the overall representative of the Indian ITES / IT industry, decided that the best way to support the Task Force was by providing industry inputs and past research, while leveraging its relationship with KPMG to look at present and future needs.

The study was expected to cover a vast and seemingly unconnected range of areas including human power requirements for R&D, IT services and IT-enabled Service. NASSCOM, with able support from the team at KPMG as well as the co-operation shown by various industry players, managed this within a short time. The report is organized as per the specific requirements of the ‘Terms of Reference’ and aimed at supporting the Task Force’s deliberations on recommendations.

The level of detail adopted for this study is exemplary and indicates the focus on implementation as maintained by the Task Force and the project team throughout its deliberations. Implementing these will however be another challenge, considering the nature of change required and the multiplicity of stakeholders involved.
NASSCOM, however, is committed to supporting the implementation of these recommendations. The first step in this context is to establish this report as a common source of reference and mobilization amongst policy-makers, industry players and potential employees. The next step is to concretize specific, action-oriented pans with definite responsibilities and time-frames. Kindly, these need to be implemented and monitored with appropriate correctives based on feedback.