CHAPTER I
INTRODUCTION

The Prologue

The chapter first deals with the introduction. It gives the detailed information about the significance of the study, objectives of the study, hypothesis tested, research methodology with collection of data and the presentation of the study.

The information technology (IT) industry has become one of the most robust industries in the world. IT, more than any other industry or economic facet, has an increased productivity, particularly in the developed world, and therefore is a key driver of global economic growth. The Information Technology Association of America (ITAA) explains the “information technology” as encompassing all possible aspects of information systems based on computers. Both software development and the hardware involved in the IT industry include everything from computer systems, to the design, implementation, study and development of IT and management systems.

Owing to its easy accessibility and the wide range of IT products available, the demand for IT services has increased substantially over the years. The IT sector has emerged as a major global source of both growth and employment. The IT industry can serve as a medium of e-
governance, as it assures easy accessibility to information. The use of information technology in the service sector improves operational efficiency and adds to transparency. It also serves as a medium of skill formation.

**Features of the IT Industry at a Glance**

Economies of scale for the information technology industry are high. The marginal cost of each unit of additional software or hardware is insignificant compared to the value addition that results from it.

1. Unlike other common industries, the IT industry is knowledge-based.
2. Efficient utilization of skilled labor forces in the IT sector can help an economy achieve a rapid pace of economic growth.
3. The IT industry helps many other sectors in the growth process of the economy including the services and manufacturing sectors.

**Evolution of Information Technology in India**

Information Technology in India accounts for a substantial part of the country's GDP and export earnings while providing employment to a significant number of its tertiary sector workforce.¹ Technically proficient immigrants from India sought jobs in the western world from the 1950s onwards as India's education system produced more engineers than its industry could absorb.² India's growing stature in the
information age enabled it to form close ties with both the United States of America and the European Union.\textsuperscript{3,4} Out of 400,000 engineers produced per year in India, 100,000 possessed both technical competency and English language skills.\textsuperscript{5} India developed a number of outsourcing companies specializing in customer support via Internet or telephone connections.\textsuperscript{5} By 2008, India also has a total of 49,750,000 telephone lines in use,\textsuperscript{6} a total of 233,620,000 mobile phone connections,\textsuperscript{7} a total of 60,000,000 Internet users—comprising 6.0\% of the country's population,\textsuperscript{8} and 4,010,000 people in India have access to broadband Internet—making it the 18th largest country in the world in terms of broadband Internet users.\textsuperscript{9} Total fixed-line and wireless subscribers reached 325.78 million as of June, 2008.\textsuperscript{10}

**Establishment of IT Industries in India**

The Indian Government acquired the EVS EM computers from the Soviet Union, which were used in large companies and research laboratories.\textsuperscript{2} Tata Consultancy Services established in 1968 by the Tata Group—were the country's largest software producers during the 1960s.\textsuperscript{2} As an outcome of the various policies of Jawaharlal Nehru (office: 15 August 1947 – 27 May 1964) the economically beleaguered country was able to build a large scientific workforce, second in numbers only to that of the United States of America and the Soviet
On 18 August 1951 the minister of education Maulana Abul Kalam Azad, inaugurated the Indian Institute of Technology at Kharagpur in West Bengal. Possibly modeled after the Massachusetts Institute of Technology these institutions were conceived by a 22 member committee of scholars and entrepreneurs under the chairmanship of N. R. Sarkar. Relaxed immigration laws in the United States of America (1965) attracted a number of skilled Indian professionals aiming for research. By 1960 as many as 10,000 Indians were estimated to have settled in the US. The reason for this immigration was rooted in India producing more engineers through its education system—expanded during the 1950s—than its industry was able to absorb. By the 1980s a number of engineers from India were seeking employment in other countries. In response, the Indian companies realigned wages to retain their experienced staff. The National Informatics Centre was established in March 1975. The inception of The Computer Maintenance Company (CMC) followed in October 1976. Between 1977-1980 India's Information Technology companies Tata Infotech, Patni Computer Systems, and Wipro, had become visible. In the Encyclopedia of India, Kamdar (2006) reports on the role of Indian immigrants (1980 - early 1990s) in promoting technology-driven growth: The United States' technological lead was driven in no small part by the brain power of brilliant immigrants, many
of whom came from India. The inestimable contributions of thousands of highly trained Indian migrants in every area of American scientific and technological achievement culminated with the information technology revolution most associated with California's silicon valley in the 1980's and 1990's.\textsuperscript{15}

**Prime minister Rajiv Gandhi and IT**

The 'microchip revolution' of the 1980s had convinced both Indira Gandhi and her successor Rajiv Gandhi that electronics and telecommunications were vital to India's growth and development\textsuperscript{16} MTNL underwent technological improvements.\textsuperscript{16} Between 1986-1987, the Indian government embarked upon the creation of three wide-area computer networking schemes: INDONET (intended to serve the IBM mainframes in India), NICNET (the network for India's National Informatics Centre), and the academic research oriented Education and Research Network (ERNET).\textsuperscript{17}

Regulated VSAT links became visible in 1985.\textsuperscript{2} Desai (2006) describes the steps taken to relax regulations on linking in 1991:\textsuperscript{2}

In 1991 the Department of Electronics broke this impasse, creating a corporation called Software Technology Parks of India (STPI) that, being owned by the government, could provide VSAT communications without breaching its monopoly. STPI set up software
technology parks in different cities, each of which provided satellite links to be used by firms; the local link was a wireless radio link. In 1993 the government began to allow individual companies their own dedicated links, which allowed work done in India to be transmitted abroad directly. Indian firms soon convinced their American customers that a satellite link was as reliable as a team of programmers working in the clients’ office. Videsh Sanchar Nigam Limited (VSNL) introduced Gateway Electronic Mail Service in 1991, the 64 kbit/s leased line service in 1992, and commercial Internet access on a visible scale in 1992. Election results were displayed via National Informatics Centre's NICNET.

The Indian economy underwent economic reforms in 1991; leading to a new era of globalization and international economic integration. Economic growth of over 6% annually was seen between 1993-2002. The economic reforms were driven in part by significant the internet usage in India. The new administration under Atal Bihari Vajpayee—which placed the development of Information Technology among its top five priorities— formed the Indian National Task Force on Information Technology and Software Development. Wolcott & Goodman (2003) report on the role of the Indian National Task Force on Information Technology and Software Development. Within 90 days of its establishment, the Task Force produced an extensive background
report on the state of technology in India and an IT Action Plan with 108 recommendations. The Task Force could act quickly because it built upon the experience and frustrations of state governments, central government agencies, universities, and the software industry. Much of what it proposed was also consistent with the thinking and recommendations of international bodies like the World Trade Organization (WTO), International Telecommunications Union (ITU), and World Bank. In addition, the Task Force incorporated the experiences of Singapore and other nations, which implemented similar programs. It was less a task of invention than of sparking action on a consensus that had already evolved within the networking community and government.

The New Telecommunications Policy, 1999 (NTP 1999) helped further liberalize India's telecommunications sector.\textsuperscript{[20]} The Information Technology Act 2000 created legal procedures for electronic transactions and e-commerce.\textsuperscript{20}

Throughout the 1990s, another wave of Indian professionals entered the United States. The number of Indian Americans reached 1.7 million by 2000. This immigration consisted largely of highly educated technologically proficient workers.\textsuperscript{13} Within the United States, Indians fared well in science, engineering, and management. Graduates from the
Indian Institutes of Technology (IIT) became known for their technical skills.³

The success of Information Technology in India not only had economic repercussions but also had far-reaching political consequences. India's reputation both as a source and a destination for skilled workforce helped it improve its relations with a number of world economies.¹³ The relationship between economy and technology—valued in the western world—facilitated the growth of an entrepreneurial class of immigrant Indians, which further helped aid in promoting technology-driven growth.³

2001– Onwards

The economic effect of the technologically inclined services sector in India—accounting for 40% of India's GDP and 30% of export earnings as of 2006, while employing only 25% of its workforce—is summarized by Sharma (2006):¹

The share of IT (mainly software) in total exports increased from 1 percent in 1990 to 18 percent in 2001. IT-enabled services such as back office operations, remote maintenance, accounting, public call centers, medical transcription, insurance claims, and other bulk processing are rapidly expanding. The city of Hyderabad is now known
as Cyberabad, and Indian companies such as Infosys, Wipro, and Satyam may yet become household names around the world.

N. Chandrababu Naidu—chief minister of Andhra Pradesh (1995–2004)—integrated information technology into state governance. Naidu's 'e-governance' policies attracted the attention of then Microsoft CEO Bill Gates.\textsuperscript{21} Information Technologies also helped develop nuclear power in India and advancements made by India contributed to its own economy.\textsuperscript{3}

On 25 June 2002 India and the European Union agreed to bilateral cooperation in the field of science and technology. A joint EU-India group of scholars was formed on 23 November, 2001 to further promote joint research and development. India holds observer status at CERN while a joint India-EU Software Education and Development Center is due at Bangalore.\textsuperscript{4}

**Promotion of IT Industry**

A wide variety of services come under the domain of the information technology industry. Some of these services are as follows:

1. Systems architecture
2. Database design and development
3. Networking
4. Application development
The information technology industry has truly transformed the way the world looks at India. Rapidly capturing global imagination, the success of its IT industry has placed India at the forefront of the emerging global knowledge economy. [According to the National Association of Software and Service Companies (NASSCOM), the apex body for software services in India, the revenue of the information technology sector has grown from 1.2 per cent of the gross domestic product (GDP) in FY 1998 to an estimated 5.5 per cent in FY 2008. The net value added by this sector, to the economy, is estimated to be 3.3 to 3.9 per cent for FY 2008.]

India's IT growth in the world is primarily dominated by IT software and services such as Custom Application Development and Maintenance (CADM), System Integration, IT Consulting, Application Management, Infrastructure Management Services, Software testing, Service-oriented architecture and Web services.

The government expects the exports turnover to touch US$ 80 billion by 2011, growing at an annual rate of 30 per cent per annum, from the earlier few million dollars worth exports in early 1990s.
NASSCOM's latest findings

- Indian IT-BPO sector grew by 33 per cent in FY 2008 to reach US$ 64 billion in aggregate revenue (including hardware). Of this, the software and services segment accounted for US$ 52 billion, growing by 28 per cent over FY 2007.

- Software and services exports (including exports of IT services, BPO, engineering services and R&D and software products) reached US$ 40.4 billion, contributing nearly 63 per cent to the overall IT-BPO revenue aggregate.

- IT-BPO exports (including hardware exports) grew by 28 per cent from US$ 31.8 billion in FY 2007 to US$ 40.9 billion in FY 2008.

- While the US (61 per cent) and the UK (18 per cent) remained the largest IT-BPO export markets in FY 2007, the industry is now making a mark in other countries as well - with exports to Continental Europe in particular, growing at a compound annual growth rate (CAGR) of more than 55 per cent over FY 2004-2007.

- Domestic IT market (including hardware) reached US$ 23.1 billion in FY 2008 as against US$ 16.2 billion in FY 2007, a growth of 43 per cent. Hardware remained the largest segment of the domestic market with a growth rate of 44 per cent in FY 2008.
Software and services spending grew by over 41 per cent during the year.

- The industry's vertical market exposure was well diversified across several mature and emerging sectors. Banking, financial services and insurance (BFSI) remained the largest vertical market for Indian IT-BPO exports, followed by high-technology and telecom. These sectors together accounted for nearly 60 per cent of the Indian IT-BPO exports in FY 2007.

- Manufacturing, retail, media, healthcare, airlines and transportation, and utilities were the other key segments.

Moreover, according to a study by Springboard Research, the Indian IT services market is estimated to remain the fastest growing in the Asia-Pacific region with a CAGR of 18.6 per cent.

**OUTSOURCING**

A research by Gartner forecasts India as the undisputed leader in the outsourcing space in the year 2008. The Outsourcing Service Provider Performance Study 2007, undertaken by sourcing advisory firm Equa Terra, reported that the majority of UK businesses offshore all or parts of their IT functions to India and plan to continue with this strategy as India continued to be the favorite outsourcing destination for businesses in UK in terms of satisfaction.
India's most prized resource is its readily available technical workforce. India has the second largest English-speaking scientific professionals in the world, second only to the US. It is estimated that India has over 4 million technical workers, over 1,832 educational institutions and polytechnics, which train more than 67,785 computer software professionals every year. The enormous base of skilled manpower is a major draw for global customers. According to a Gartner study, India remains the undisputed leader in offshore services and tops the list of 30 countries on criteria's such as language, government support, labour pool, infrastructure, educational system, cost, political and economic environment, cultural compatibility, global and legal maturity, and data and intellectual property, security and privacy.

Twenty-nine India-based companies including Tata Consultancy Services, HCL Technologies, Genpact, and WNS Global Services amongst others, have been listed among the best 100 IT service providers in a new survey carried out with a view to assist business heads of major outsourcers identify reliable, innovative and tech-savvy partners.

**Multinationals in India**

Information technology has been a promising sector for India, generating revenues both for the domestic as well as the global market.
India's IT potential and markets with very high returns have attracted multinationals to grab a share of the pie and cash in on the IT boom. Also, the increase in purchasing power and the rapid business expansion of the small and medium enterprises (SMEs) holds promise for global IT giants who look at a 100 per cent year-on-year growth in their small and medium businesses (SMBs) market in India. In fact, the total IT spends of Indian SMBs is expected to touch US$ 10 billion this year, of which US$ 1.1 billion is expected to be spent on IT services alone.

Also, according to a study by consulting firm Zinnov, India's IT spending is likely to grow between 17.6-24 per cent by 2010 from the current IT spending totaling US$ 17 billion.

- Cap Gemini, Europe's largest consulting and computer services firm is gradually moving its internal support services to India.
- Intel, the globally renowned chip maker, is looking to invest more than US$ 1 billion in India over the next three years in partnership with Indian and foreign hardware firms to prepare light weight personal computers.
- Cisco posted over 100 per cent year-on-year growth in its SME business in India in FY2008.
- Oracle is expecting over 100 per cent growth in India for its CRM business on the back of increased technology awareness and need for cost-effective customer servicing.
• Yahoo! Inc and Tata Sons' subsidiary firm Computational Research Laboratories (CRL) have entered into a joint agreement to make available-EKA, a supercomputer (the fourth fastest) in the world- for cloud computing research in India.

• Dell, which not only manufactures and sells hardware in India but also has a service and support arm, saw a volume growth of 99 per cent year-on-year in the first quarter of 2008. It had ended the year 2007 with revenues of US$ 638.96 million and expects to touch the billion dollar mark next year.

• World's leading chip designer firm, ARM, is expanding its India design center to make it the largest outside Britain.

• US-based, US$ 1-billion dollar-chip maker, Microchip Technology, will invest US$ 65 million in its India development center over the next five years.

**IT Domestic Markets**

India's domestic market has also become a force to reckon with, as the existing IT infrastructure evolves both in terms of technology and depth of penetration. Global as well as domestic IT companies like IBM, Accenture, HP, TCS, HCL and Wipro have witnessed a remarkable growth in their business.
The domestic information technology business has become far too attractive to ignore. India Inc's demand for IT services and products has bolstered growth in the domestic sector with deal sizes going up remarkably and contracts worth US$ 50 million-100 million up for grabs.

Such growth in the software and services sector has been achieved because of spectacular growths in some segments. For instance, 680,000 notebooks were sold in the first half of 2007-08, registering an increase of 59 per cent.

In the next couple of years, global market intelligence and consulting firm, IDC, sees a higher local demand driven by growth of broadband, expansion of Software-as-a-Service (SaaS), service oriented architecture, virtualization as also networking projects. The net margins in the domestic market are at about 9-11 per cent which has improved considerably in recent years. Of late IT service providers, MNC's and domestic firms have developed strategies exclusively for the domestic market according to a research by Gartner.

Further, India's homegrown IT mammoths are looking at buying companies abroad. In one of the biggest acquisitions ever, HCL Technologies has proposed to acquire UK-based Axon with a US$ 811-million bid at 650 p per share.
Growth of IT

The Indian information technology sector continues to be one of the sunshine sectors of the Indian economy showing rapid growth and promise. Though worldwide IT budgets are expected to increase by 3.3 per cent in 2008, slightly higher than 2007, the Indian firms would report stronger-than-average IT budget increases of around 13 per cent, according to Gartner.

- According to NASSCOM, the Indian IT-BPO sector is on track to reach a target of US$ 60 billion in exports and US$ 73-75 billion in overall software and services revenues by 2010.

- With small and mid-sized businesses driven by the increased use of technology India’s information and communication technology market is estimated to grow 20.3 per cent annually to reach US$ 24.3 billion by 2011.

- According to the global Infotech analyst, International Data Corporation, the Indian IT and ITeS market is estimated to grow at the rate of over 16 per cent to become a US$ 132 billion industry, significantly, the domestic market alone is expected to become over US$ 50 billion, with a CAGR of about 18.4 per cent. Simultaneously, the IT and ITeS exports are estimated to more than double to US$ 78.62 billion by 2012.
Human Resource

Human resources is a term with which many organizations describe the combination of traditionally administrative personnel functions with performance, Employee Relations and resource planning. The field draws upon concepts developed in Industrial/Organizational Psychology. Human resources has at least two related interpretations depending on context. The original usage derives from political economy and economics, where it was traditionally called labor, one of four factors of production. The more common usage within corporations and businesses refers to the individuals within the firm, and to the portion of the firm's organization that deals with hiring, firing, training, and other personnel issues. Though human resources have been part of business and organizations since the first days of agriculture, the modern concept of human resources began in reaction to the efficiency focus of Taylorism in the early 1900s. By 1920, psychologists and employment experts in the United States started the human relations movement, which viewed workers in terms of their psychology and fit with companies, rather than as interchangeable parts. This movement grew throughout the middle of the 20th century, placing emphasis on how leadership, cohesion, and loyalty played important roles in organizational success. Although this view was increasingly challenged by more quantitatively rigorous and less "soft" management techniques
in the 1960s and beyond, human resources had gained a permanent role within an organization.

**Human Resource Management**

Human resource management (HRM) is the strategic and coherent approach to the management of an organization's most valued assets - the people working there who individually and collectively contribute to the achievement of the objectives of the business. The terms "human resource management" and "human resources" (HR) have largely replaced the term "personnel management" as a description of the processes involved in managing people in organizations.\(^{22}\)

**Features of HRM**

Its features include:

- Personnel administration
- Personnel management
- Manpower management
- Industrial management

But these traditional expressions are becoming less common for the theoretical discipline. Sometimes even industrial relations and employee relations are confusingly listed as synonyms\(^ {23}\), although these normally refer to the relationship between management and workers and the behavior of workers in companies.
The theoretical discipline is based primarily on the assumption that employees are individuals with varying goals and needs, and as such should not be thought of as basic business resources, such as trucks and filing cabinets. The field takes a positive view of workers, assuming that virtually all wish to contribute to the enterprise productively, and that the main obstacles to their endeavors are lack of knowledge, insufficient training, and failures of process.

HRM is seen by practitioners in the field as a more innovative view of workplace management than the traditional approach. Its techniques force the managers of an enterprise to express their goals with specificity so that they can be understood and undertaken by the workforce and to provide the resources needed for them to successfully accomplish their assignments. As such, HRM techniques, when properly practiced, are expressive of the goals and operating practices of the enterprise overall. HRM is also seen by many to have a key role in risk reduction within Organisations.24 Synonyms such as personnel management are often used in a more restricted sense to describe activities that are necessary in the recruiting of a workforce, providing its members with payroll and benefits, and administrating their work-life needs.

The goal of human resource management is to help an organization to meet strategic goals by attracting, and maintaining
employees and also to manage them effectively. The key word here perhaps is "fit", i.e. a HRM approach seeks to ensure a fit between the management of an organization's employees, and the overall strategic direction of the company.

The basic premise of the academic theory of HRM is that humans are not machines, therefore we need to have an interdisciplinary examination of people in the workplace. Fields such as psychology, industrial engineering, industrial, Legal/Paralegal Studies and organizational psychology, industrial relations, sociology, and critical theories: postmodernism, post-structuralism play a major role. Many colleges and universities offer bachelor and master degrees in Human Resources Management.

One widely used scheme to describe the role of HRM, developed by Dave Ulrich, defines 4 fields for the HRM function:\(^{25}\)

- Strategic business partner
- Change agent
- Employee champion
- Administration

However, many HR functions these days struggle to get beyond the roles of administration and employee champion, and are seen rather as reactive as strategically proactive partners for the top management. In addition, HR organizations also have the difficulty in proving how their activities and processes add value to the company. Only in the recent
years HR scholars and HR professionals are focusing to develop models that can measure if HR adds value.  

**Critical Academic Theory**

Postmodernism plays an important part in Academic Theory and particularly in Critical Theory. The Karen Legge in 'Human Resource Management: Rhetoric's and Realities' possess the debate of whether HRM is a modernist project or a postmodern discourse. In many ways, critically or not, many writers contend that HRM itself is an attempt to move away from the modernist traditions of personnel (man as machine) towards a postmodernist view of HRM (man as individuals). Critiques include the notion that because 'Human' is the subject we should recognize that people are complex and that it is only through various discourses that we understand the world. Man is not Machine, no matter what attempts are made to change it i.e. Fordism / Taylorism, McDonaldisation (Modernism)  

Critical Theory also questions whether HRM is the pursuit of "attitudinal shaping" particularly when considering empowerment, or perhaps more precisely pseudo-empowerment - as the critical perspective notes. Many critics note the move away from Man as Machine is often in many ways, more a Linguistic (discursive) move
away than a real attempt to recognise the Human in Human Resource Management.²⁸

Critical Theory, in particular postmodernism (poststructuralism), recognises that because the subject is people in the workplace, the subject is a complex one, and therefore simplistic notions of 'the best way' or a unitary perspective on the subject are too simplistic. It also considers the complex subject of power, power games, and office politics. Power in the workplace is a vast and complex subject that cannot be easily defined. This leaves many critics to suggest that Management 'Gurus', consultants, 'best practice' and HR models are often overly simplistic, but in order to sell an idea, they are simplified, and often lead Management as a whole to fall into the trap of oversimplifying the relationship.

**Business Practice**

Human resources management comprises several processes. Together they are supposed to achieve the above mentioned goal. These processes can be performed in an HR department, but some tasks can also be outsourced or performed by line-managers or other departments.

- Workforce planning
- Recruitment (sometimes separated into attraction and selection)
- Induction and Orientation
- Skills management
- Training and development
- Personnel administration
- Compensation in wage or salary
- Time management
- Travel management (sometimes assigned to accounting rather than HRM)
- Payroll (sometimes assigned to accounting rather than HRM)
- Employee benefits administration
- Personnel cost planning
- Performance appraisal

**Careers in HRM**

The sorts of careers available in HRM are varied. Human resource assistant are generalist HRM. There are careers involved with employment, recruitment and placement. Training and development specialism is often conducted by trainers and orientation specialists. Compensation and benefits tasks are handled by compensation analysts, salary administrators, and benefits administrators.
Human Resource Management - Approaches

The term Human Resource management came to prominence during 1980s as a pressure grew to give priority for the effective management of people at work. The pressure which led to greater interest in 1980s still persists today which include growing market competition, changing expectations of the employee, complex management process, availability of 'excellence' and 'quality' models. Competitive market pressures demands full use of human resources and a higher quality of goods and services arguably provided the main pressure, while a key trigger was provided in accounts of success stories of companies. Analysis of Japanese companies appeared to demonstrate that they succeeded through a distinctive approach to management of human resources. The importance of human resources was reinforced by American perspective by Peters and Waterman's book In search of excellence. This claimed that the best American company succeeded by emphasizing the soft side of management, that is management of human resources. Reinforced by hyperbole and rhetoric became popular in industry and came to offer a counter to the growing Japanese competition.  

One of the distinctive feature of Human Resource management is that as the critical success factor it is too important to be left to human resource specialist. What was needed is to present human resource management an approach appealed to line managers. This
means the traditional personnel management has to be repackaged and extended. Organisations have choices about how they want to pursue human resource activities according to the policy goals to which they give priority. They accept an open systems approach indicating that range of influences are likely to determine policy priorities. The distinctive feature of HRM is that it links HRM policy and HRM strategy to business strategy, shifting the emphasis from the traditional administrative, fire-fighting and problem-solving activities of personnel management to a more proactive and strategically oriented role.

HRM as an approach based on a distinctive set of values is the contrast between traditional management values which emphasize compliance and control of the workforce with HRM values based on employee commitment and workforce Autonomy. This implies a different kind of Psychological contract based on reciprocal commitment and high trust. Employees have interesting and challenging jobs but at the same time are fully utilized to the benefit of the company. Workers are encouraged to contribute to Innovation and change in return for implicit guarantees of job security. The contrast between the more traditional values and those associated with this view of HRM are perhaps more marked in a country like the United Kingdom rather than the United States because of the stronger United Kingdom tradition of pluralist industrial relations with its heavy Trade Union influence. The
HRM policies pursued most notably in the 1980s by a number of American high technology companies such as IBM, Hewlett Packard, and DEC provided a vivid contrast and offered a distinctly different approach. Indeed HRM attracted the suspicion of trade union sympathizers since, by inducing employee commitment to organization, it threatened to reduce commitment to the union and diminish the union role. This distinctive approach to HRM, built around commitment to the organization emphasizes the need to give greater priority to human resource issues and acknowledges multiple stakeholder perspectives, including the possibility of Dual commitment to both company and union.33

The approach to HRM taken by American high-technology companies had the policy goals of securing a workforce highly committed to the company, highly flexible in skills and roles, and of high quality. These goals were achieved through careful attention to key policy levers such as selection, Socialization, Training and development, Communicating, Employee involvement, and rewards systems. Success depended on achieving careful integrating between corporate and human resource strategy; integration between the various human resource policies and practices; and integration of human resource and line management values. Line managers in these organizations had internalized the human resource values, were eager to own them and
make them work. The question then arises as to whether these distinctive HRM values and the policy goals associated with them should be advocated for all organizations or only under specific conditions. Some believe that they should apply in all organization's other advocated generic strategies such as a basis for determining when this distinctive set of HRM goals might be appropriate.

One further element in the development of HRM has been the emergence of a number of techniques with demonstrated benefits for performance. To take just a few illustrations, there has been major progress through application of utility analysis in demonstrating the benefits of the use of selection tests; Goal setting, when properly used, does appear, as its advocated suggest to be an effective motivational technique; and careful job design has a demonstrated capacity to improve individual satisfaction and well-being. It is, of course, possible to apply the techniques without pursuing distinctive HRM policy goals. The HRM argument is that their impact will be greater if they are part of a coherent philosophy and strategy.

Evidence taken from the United States and from the United Kingdom confirms that there has been a great deal of innovative activity. However there appears to be risk that HRM becomes the umbrella under which variety of techniques are tried and tested without ever achieving the strategic integration or congruence which the more
sophisticated models call for. One context within which it might be expected that HRM would come into its own is in Greenfield sites—newly built factories and offices—where managers have an opportunity to introduce the best contemporary practice with relative freedom for the constraints of custom and practice. Evidence from the United States suggests that where this opportunity is taken it can result in sustained high performance over a long period.37 In the United Kingdom there are also well-known cases, usually of foreign-owned manufacturing plants which have successfully applied HRM on Greenfield sites38. However, many managers still prefer the traditional approach, pursuing high performance through efficiency and tight control rather than by using HRM to ensure full utilization of human resources.

The impact of a number of techniques which might be expected to contribute to HRM policy goals has sometimes been disappointing. For example Quality circles have rarely made a sustained contribution and Employee involvement initiatives have often failed to improve initiatives have often failed to improve commitment to the organization. Explanations for failure can be found in the short-term, partial, and unenthusiastic application of these techniques. However a fuller explanation can be linked with the idea of strategic integration. The case is that the positive impact will only arrive when there is real commitment to philosophy of full utilization of human resources to what
he terms "total involvement management". This requires comprehensive strategic integration to the point where HRM is a core part of the business strategy. There is a critical mass of cohering and mutually supportive HRM policies, and top management displays full commitment and ownership to ensure the culture reinforces the application of HRM.39

Achieving success through a full utilization model of HRM is an extremely difficult long-term endeavor. The prizes are great but the organizations frequently cited as the models for the success of this approach, the high-technology companies, are currently experiencing huge problems in the marketplace. Any doubts this raises in the minds of some managers are likely to be reinforced by fashions such as Business process re-engineering or lean management which place greater weight on efficiency. It may be that as the initial gloss wears off, it is time to reshape the concept of HRM to reflect changing circumstances, in which speed of response is a key to success. This requires new kind of psychological contract. The bedrock of job security can no longer provide the ground on which to build HRM.

It is in these backdrop of conceptual framework the present research study try to evaluate human resource strategies regarding recruitment, selection, retention and re-training in the field of
information technology in industrial units of Aurangabad, Shendra and, Waluj MIDC Area of Maharashtra state.

OBJECTIVES OF THE STUDY

The proposed study is to fulfill the following objectives-

1. To assess the current status of employment in the field of information technology and IT enabled services in Aurangabad District.

2. To evaluate the sources of manpower for such industries.

3. To study the procedure of selection of such manpower in Aurangabad district and to compare it with procedure of selection of other employees.

4. To study the strategies followed by the industries to retain such skilled professionals.

5. To evaluate the requirements of re-training of these employees and to study the strategies followed for re-training.

6. To assess the current status of satisfaction of these employees.
7. To suggest suitable guidelines to the policy makers for the better selection, retention and retraining of professional in the field of information technology.

**LIMITATIONS OF THE STUDY**

1. This study includes industries specialized in information technology. It also includes the IT departments of other industries like trade, insurance and banking, infotainment, security, Government offices, real estate, technical and management consultancy, etc. in Aurangabad district.

2. The reliability of the study depends on the authenticity of the information supplied by the respondents.

3. As the study requires huge data from allover the district, cost and time constraints may have affected the effectiveness of the study though every attempt is made to keep the spirit of the objectives and research methodology.

**SCOPE OF THE STUDY**

**Temporal Scope**

For the purpose of data collection and study, mainly the duration of 2000 to 2005 was considered. Where ever necessary reference was made to the previous circumstances.
Geographical Scope

The proposed study is confined to Aurangabad district only. However every attempt was made to generalize the findings wherever situation permits.

Functional Scope

The purpose of the study is to go into the depth of strategies followed by leading organizations to select retain and retrain appropriately skilled professional in the field of IT and to obtain a guideline for the future by accurately analyzing the data on the past and present situation of the industrial trends.

HYPOTHESES TESTED

1. Human resources are the efforts, skills and capabilities that people contribute to an employing organization which enable it to continue in existence. In today's competitive and global market place human resource is vital to secure competitive advantage.

2. Recruitment, Selection, Retention and Retraining are the Human Resource activities that direct strategies to process and pursue a course of action that helps the Organisation to achieve its objective realization.

3. Human Resource Management of IT Professionals is more strategic than the other employees.
DATA COLLECTION AND ANALYSIS

Primary data

Observations, interviews, questionnaires, were used for primary data collection.

Secondary data

Governmental and other publications; journals; books, magazines, and newspapers; reports and research studies; other relevant documents were used for secondary data collection.

The sampling Method

Multi-stage, simple random sampling method was used for the study at various levels.

Data Analysis

In the study multivariate descriptive analysis by using Statistical software SPSS latest version was undertaken to draw inferences and arrive at suitable conclusions.

CHAPTER SCHEME

The entire study is summarized in following six chapters-

1. Introduction

This chapter provides the basic premise for the research study. The chapter begins with a prologue where IT industry is discussed
brief. This chapter also explains the features of IT. It traces the evolution and development of IT in India from its formative years to the present scenario. Major steps taken for promotion of IT in India, NASSCOM’s latest findings, outsourcing, Multinationals in India, IT domestic markets, Growth of IT. The concept of Human Resource, Human Resource Management (HRM), Features of HRM and approaches to HRM are discussed in this chapter. Objectives of the study, hypothesis, methods and tools of data collection and analysis of data.

2. Review of Literature

The review of literature pertinent to the research study is also undertaken in this chapter.

3. Analysis of Employment related to IT in Aurangabad District

This chapter describes the industrial development of Aurangabad in brief and IT in detail. In this the socio-economic context of industry is also emphasized. The pattern of employment and types of employment prevalent in various industrial areas of Aurangabad is dealt in detail. The factors related to the employment in IT in Aurangabad district are evaluated. The profile and practices of the IT companies in Aurangabad are also mentioned in this chapter.
4. Issues Regarding Recruitment, Selection, Retention and Retraining of Professionals in the Field of IT

This topic covers the principles of Recruitment, Selection, Retention and Retraining of Professionals in the field of IT industry in Aurangabad district. To be more specific, this chapter includes Recruitment, process distinguished between selection and Recruitment, Sources of Recruitment, Evolution and Recruitment pattern in India, Influences of Recruitment, Alternatives to Recruitment, and Analysis of Recruitment, Regarding Selection, the chapter includes selection strategy, procedure, process, Criteria, and Analysis. The chapter further unfolds the concept of Retention, challenges to employee retention, reasons for retention etc. The concept of Retraining methods, types and problems are also highlighted. The chapter in concluded by analyzing its repercussion on the IT industry of Aurangabad.

5. Strategies for Sustained Supply of Skilled Manpower in the Field of IT

In this chapter various strategies for the sustained supply of skilled manpower in the field of IT industry are streamlined. Discussed and elaborated so as to bring out influences and challenges. It also traces the genesis and need for skilled manpower and manpower planning, utilization is discussed at length.
6. Concluding Remarks and Suggestions

This chapter mainly contains the summary, conclusion and, suggestions mainly drawn from the analysis done by closely exploring the date compiled and constructed in the previous chapters.

Overall information technology and I.T. employees in the industry has became more robust in the field of I.T. In overall features of I.T. industry, establishment of I.T. Industry and the initiator of this I.T. sector in India, late Hon. Then Prime Minister Mr. Rajiv Gandhi is the pionner of the computer world and I.T. field.
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