# A Study on Some Major Issues and Challenges in Indian Information Technology Sector

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**Abstract:**

The modern age can be termed as 'The Age of Information' due to the dramatic growth of the Global IT industries during the past decades and in the meanwhile India sets its position in the global IT industries starting from the year 1991, when It declared itself open to the Liberalization. Liberalization resulted in the rapid growth and transformation of different industries and Business sectors in India including the IT sectors, which attracted the Global Media and termed itself as the Information Technology Superpower. The question of survival always arises in this hypercompetitive environment where in a fraction of second the technology upgrades and provides a new, innovative and cost efficient ways of solutions to the business problems. "The twentieth century was the age of machine; the twenty-first century will be the age of people". Human Resource is one of the major factors for the growth of Indian IT Industries. The aim of this paper is to identify few of the major issues and challenges faced by these knowledge workers of the Information Technology Industry in India not only from the external world but also from the internal world.
*Keywords: issues, challenges, information technology*

## I. INTRODUCTION

The Information Technology Enterprises (ITE) is one among the highly developed enterprises globally. In comparison to any other enterprises, ITE are playing greater role in economic development. There is development of both hardware and software that are engaged in the IT industry hence the appeal for IT services rised extensively within the years. The IT sector has emanated as a bigger global source of occupation. The industry of Indian information now employs more than one million and a good potentiality of providing more employment to eradicate the problem of unemployment among youth.

The era of growth in Indian IT Sectors can be broadly divided into two segments: The Pre-Liberalization era and The Post-Liberalization era.

## II. The Pre-Liberalization Era

The Period from 1965 to 1991, till India declared it opened to the Liberalization, can be named as the Pre-Liberalization Era. In the year 1965, USA modified its immigration laws and gave tremendous opportunity to the research scholars in worldwide to migrate and provided them an effective environment to research. As a result many Indian scholars migrated to USA and contributed their knowledge, skills through research and actively participated in the IT revolution during 80s and 90s. The

unbelievable and unpredictable growth of IT industries in USA required huge number of IT professionals and USA was not ready to provide the manpower. This forced the IT industries in USA to outsource IT professionals from the external world. Indian IT professionals were suitable for these jobs because of the skills possessed by them and the low cost for the skill. They were also preferred due to the ability to communicate in English and the adoptable nature in any environment. This resulted in a huge boom in the Indian IT sector, whose primary work was to export skilled IT professionals to USA.

In the year 1967, Tata Sons Limited, an Indian based company with collaboration to Burroughs Corporation, A USA based company, for the first time started its IT firm in the name of "Tata Consultancy Service (TCS)" in India. The primary job of TCS was to develop punch card facilities for Tata Steel employees, to outsource IT professionals and to develop software products for Burroughs Corporation. In 1980, In Pune it established Indian first software research and development centre "the Tata Research Development and Design Centre (TRDDC)". After that achieving one by one milestone, it named itself as the 4th Biggest IT Company in the world and the best IT Company of India having the market capitalization of $80 billion as of today.

In 1981, Infosys was founded by Mr. Narayan Murthy and his colleagues, which eventually become the second largest IT firm of India by providing quality software products and contributed a higher portion to the economic and IT growth of India. It is for the first time developed an IT business model, which was later on followed by almost all IT firms of India.

In the year 1983, WIPRO established its IT firm "Wipro Systems Ltd" after the joining of Mr. Ajim Premji as the chairman of the company and as of today has a turnover rate of about $8 billion per year. Likewise in the year 1986 Mahindra & Mahindra established "Tech Mahindra" with collaboration to British Telecom and with its tremendous growth became a US$4.4 billion company by the year 2017.

However in the Pre-Liberalization Era, The Private Business sectors were directly under control of the Indian Government. The rules and regulations for the Private Business sectors were very strict and it was very difficult for an organization to function under the purview of the Indian Government.

## III.     The Post-Liberalization Era

In 1991, India's former Finance Minister, Dr. Manmohan Singh introduced a major economic change and declared India as an open market. Different rules governing the private business sectors were amended which in result provided a backbone for the private industries to grow up in a faster manner. In this era not only there is a remarkable growth in the industries which were established in the Pre-Liberalization era but also different IT industries are formed and grown up contributing a higher percentage to the economic growth of India.

The India Government in 1991 created a corporation named as Software Technology Park of India (STPI) and linked different IT firms with Satellite Communication which eventually reduce the communication cost and helped the Private firms to grow up as they could now transfer and retrieve data from worldwide in a faster way and in a cost efficient way. In this year HCL technologies Limited founded by Shiv Nadar, which became the king of hardware and software development company for a limited time period, growing its business to revenue of about US$6.975 billion.

Another IT revolution took place in 90s due to a historical discovery of Y2K bug and USA Corporation outsourced the upgrading work to India IT firms. It resulted in a revolutionary change in the IT industries. Many small firms were established to rewrite the software codes and to implement it worldwide. India IT market was growing with a rate of 200% each year and made it an Information Technology Super power.

In 1997, Larsen & Toubro Limited founded its own IT industry and named it as "Larsen & Toubro InfoTech (LTI)" and provided the services like

Digital & Automation Solutions, IT service management and IT consulting.

In the year 1999, the telecom policy was modified by the NDA government and gave a scope to the private organizations to win their own networks and as a result there was a boom in the telecommunication sectors, a major part of the IT firms.

In 18th August 1999, another IT firm "Mind tree Limited" founded by Mr. Subroto Bagchi and 9 other IT professionals, whose current revenue is more than $780+ million. The company is specialized in the development of Applications both for computer systems and Mobile phones operating in various Operating systems. In this year UST global extended its business to India, by establishing one of its corporate office in India.

## IV. ISSUES AND CHALLENGES IN IT COMPANY

Information Technology Industry in India is always facing Challenges not only from the external world but also from the internal world. Some major Issues and Challenges faced by the IT companies are as follows:

### 1. Customer Service

The primary goal of the IT industry is to satisfy the needs and wants of its client. It is one of the most challenging jobs to satisfy a customer, at least when the choice changes frequently. IT industries have to provide a better and quicker service and keeping the eye on the budget of the customer. Some customer demands more with fewer budgets and some in a limited time. Hence it becomes a challenge for the IT industries to deliver better customer service.

### 2. Human Resource

An IT industry Constitutes by combing people, process and Technology. Human resource is the heart of IT industry. The technology is developed by the people and implemented by the people. Again It is important to place right people in right position at right time. It is also important to manage the human resource and take care of their difficulties. Again the industry has to provide facilities according to its financial capacity. Hence Human Resource Management is another major challenge for an IT industry. It includes the following aspects of HR:

a) **Recruitment Planning:** IT industries required highly talented and technological expertise people to provide qualitative products and services. Hence recruitment is a major challenge for an IT industry. It has to plan according to the talent and skills required and according to the development plans of the industry. The industry has to attract and hire the best talents for the industry; hence planning is an important aspect in IT industries.

b) **Performance Management:** The next challenge is to manage the performance of the employees. "Stress" is one of the major aspects which the industry has to deal with due to the high work load and the pressure to complete the work in time and in budget.

c) **Training and Development:** It is the responsibility of the industry to develop the skills of the employees and provide them adequate training which will be helpful to the employees as well as to the organization. It is the challenge for the IT industries to provide adequate training especially in the field of technology when it upgrades so fast that in one or two years the old technology becomes obsolete and replaced by new and modern technologies.

d) **Compensation Management:** "Pay" is one of the components for which people works for and they need additional facilities except payment. Although IT industries in India is one of the highest paying Industry, however the demand for additional compensation is there due to highly skilful works  and due to additional work pressure. It is a challenge for the IT industries to alight the HR cost with the budget.

e) **Attrition and Retention:** The turnover rate of employees in IT industries is more than of any other industries in India. Hence retention of skilled employees is a major challenge for the IT industries. To retain the IT professionals It has to provide some lavish schemes to them with additional benefits by understanding their needs and wants.

## 3. Productivity and Complexity

IT industries has to be productive by adopting new and modern technologies and by developing new effective policies and procedures. Security and privacy is one of the major challenges in these industries at least when it under goes continues change in its shape, size and structure. Another challenge is to cope with the change due to the organizational complexity in these industries. Managing the human resource and departmentation is also a big challenge, which will enhance productivity and reduce the complexity.

## 4. Budget

Budget is the heart of the organization, on which every other plan depends. Budget is nothing but a financial plan for the organization which is made usually for a year. Preparing the budget in IT industries is a big challenge because the industry has to consider all the possible costs and expected revenues for the future. In the changing environment when the costs are dynamic and future is unknown, Budgeting is the biggest challenge of the IT industries.

## 5. Marketing & Public Relations

IT industries has to satisfy the specific needs of its customer, which can only be possible through a effective public relations and by marketing the best features of the services and software products of the specific industry. Hence maintain an effective public relation is a challenge for the IT industries as the taste of every individual is different than other.

## 6. Multinational Operation:

Most of the IT industries have multinational operations. They usually collect the projects from different countries and work it out in a suitable country where the cost per skill is less. Hence IT industries has to develop their own establishments for inter communication amongst different branch offices. Again one of the major activities of the IT industries is to outsource Human Resource. Hence one of the major problems is to handle a single industry from one place and develop HR practices for different region as people in different regions are different and their choices are different too. The major challenge is to align the goal of the individuals with the organizational goal. Again different culture of different people does not make it easy to implement the plans and policies. Organizations have to minimize the culture shocks and develop their human resource in a different country, which creates tremendous challenge for the IT industries.

## 7. Data Storage and Retrieval:

The organization has to record all the data starting from the employee details to the revenue details. In IT industries except the above information, it has to store the details of the software products consisting of thousands of code developed though programing languages and efforts by the software engineers. A software industry has to provide support for its software products till it is in use. Hence it has to upgrade its software product in a timely manner. For this purpose, an IT industry has to incorporate a voluminous database and has to maintain the database, which is not cost friendly. Hence it creates a challenge for the industry.

## V. Conclusion

This paper lighted upon the growth of the IT industries in India by dividing the growth into two parts- Growth in Pre-Liberalization Era and in Post-Liberalization era. It is found that the IT industries boomed up in the pre-Liberalization era however its real growth took place after the Liberalization in India. The roles, challenges of the IT industries in

India are also discussed in brief. There is a continuous change in environment and for which the HR practices changes in a timely manner. With the flow of time, Human started understanding its own value; hence HR practices become more people oriented day by day in the IT industries.

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