

CHAPTER -III

GLOBALISATION AND ITS EFFECTS ON MIGRATION OF INDIAN IT PROFESSIONALS

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GLOBALISATION AND ITS EFFECTS ON MIGRATION OF INDIAN IT PROFESSIONALS

3.1: Introduction

Globalisation in general sense is the process of transformation of local or regional things into global ones. It is also used to describe a process by which the people of the world are unified into a single society and function together. This process is a combination of economic, technological, sociocultural and political forces. However globalisation is often used to refer to economic globalisation, that is, integration of national economies into the international economy through trade, foreign direct investment, capital flows, migration, and the spread of technology.

Due to globalisation the developed countries are doing their businesses all over the world. The companies of these countries are earning more money due to globalisation and investing more capitals. The software companies of these countries are also doing a worldwide business. After globalisation the technological development in economically developed countries like USA, Canada etc had attracted the Indian talent pool immensely. Due to globalisation, regional shortages of skilled workers, migration scenario, outsourcing scenario and the other factors like the methods of procuring skilled workers has changed in recent years. The countries have got a better infrastructure and wage policy which are due to the impact of globalisation and free trade among the countries and had attracted Indian IT professionals to these countries immensely. New technological development and the Universalisation of technology had given birth of so many software and hardware companies in USA and other developed countries where the demands of Indian IT professionals are huge. The Indian-American community now (2010) boasts 1.68 million people compared with 0.81 million in 1990—a growth of 106 percent after globalisation of Indian economy.

The launch of economic reforms in India in 1991 opened up new business opportunities for the Indian community in the United States. They have had an important role to play in high-tech development in India, focused primarily on the software industry. Many IT professionals rely heavily on strengths back home—the huge pool of skilled computer experts and software professionals—to subcontract work to their country of origin, thus creating a “virtuous” cycle for the Indian IT sector and economy. As an example, in the

software industry and IT-enabled services, investments of Diaspora members (those who are the permanent residents in foreign countries like USA) are quite limited (about 3 percent of FDI), but their contribution is mostly in the form of knowledge linkages, that is, with foreign markets, helping Indian firms to absorb technical and managerial knowledge. The initial momentum for outsourcing to India many times comes from the employees of Indian origin. The success of the Indian Diaspora has also attracted the attention of major MNCs to India's potential in the IT sector. India has attracted investment in many R&D centres wholly funded and established by GE, Cisco, Sun Microsystems, Microsoft, IBM, and Hughes Software. Intel has established their R&D centers in Delhi, Bangalore, and Mumbai for its global operations. Oracle Corporation has two development centers in Bangalore and Hyderabad. Phoenix Technologies, ABB Group, IBM, America Online, and J. P. Morgan Chase are in the process of setting up new R&D centres, and Lucent Technologies is also making inroads into India. All these events are the results of globalisation.

3.2 Globalisation, WTO and Migration of Software Professionals

The World Trade Organisation (WTO) is concerned with the rules of trade among nations. At its core there lies a body of trade agreements, of which the General Agreement on Trade in Services (GATS) is one of the main constituents. The GATS provides a set of predictable and legally enforceable conditions for services trade. The agreement aims to progressively expand the trade in services, as a means of promoting growth and development. The agreement applies not only to the traditional mode of trade, i.e. cross-border supply ("mode 1"), but encompasses three additional ways of trading services internationally: cross-border consumption ("mode 2"), establishment of a commercial presence ("mode 3") and, significantly, presence of natural persons ("mode 4"). As mode 4 involves the cross-border movement of people, the GATS is consequently concerned with international migration. Mode 4 encompasses the movement of natural persons who are either service suppliers (such as independent professionals) or who are employees of a service supplier, and who are present in the territory of another member for the purpose of supplying a service. This is especially affecting with respect to GATS Mode 4, because labour migration is strongly associated with transnational differentials in wages, social benefits and skills (Tomer Broude, International Law Forum of the Hebrew University of

Jerusalem Law Faculty, Research Paper, 2007).Due to globalisation a rapid development has been seen in the environmental, social, infrastructural areas in software sectors worldwide. At the period of globalisation (1991-2000) a boom in the software industries have been seen worldwide. Software companies like Intel, Cognizant Technologies, TCS, Google, Infosys etc have boomed up their business after 1991 and onwards.

Before 1993 the non-tariff trade barriers between India and USA was very strict. Like the H-1B Visa Global cap for the Indian professionals was not sufficient, wage parity was insisted upon by U.S.A which was discriminating, double taxation of social security (no benefits to Indian Employees), discriminating labour laws etc. After the formation of WTO in 1995 the scenario has changed. Now more H-1B visas are issued by US Govt., more transparency in visa program, totalisation agreement is signed by India and USA, new amendments to labour laws reducing discriminations, no insistence of wage parity. These are the latest policies taken by US Govt. for Indian talented IT professionals. And this is only because of the demands and impacts of globalisation.

Some factors of globalisation are taken for this study like Infrastructure, Working Environment, Quality of Work Life, Research Environment, Cost of Living, Social Security etc. for measuring the impact of globalisation on migration of Indian IT professionals to some of the developed countries.

Due to globalisation the rate of growth of GDP in India from the last five years at a stretch is among the highest in the world (Ray, 2008).The most significant aspect of this remarkable achievement in economic fortunes is the sharp rise in the share of the service sector in the GDP.The service sector now accounts for more than half of India's GDP having gained at the expense of both the agricultural and industrial sectors through the 1990s.

Table3.1: Percentage of shares of the different sectors of the economy in GDP

Sector	1990-91	1998-99	2006-07
Agriculture	30.93	26.83	18.50
Industry	25.38	22.01	19.60
Service	43.69	51.16	61.90

(Source: Glimpses of the Indian Economy (Select aspects of the Indian Economy))

The rise in the service sector's share in GDP marks a structural shift in the Indian economy and takes it closer to the fundamentals of a developed economy. Out of this service sector a major portion is captured by IT/ITES industries.

The story of India's information technology (IT) capacities is well known. The impulses of growth are now strengthening in other services as well such as engineering and consultancy, communication, entertainment, business, finance and information services as well as a host of personal services including tourism, health and hospitality.

The biggest contribution to this spectacular growth in the service sector has come from the jobs outsourced to India by the developed countries (BPO and KPO sectors) mainly USA. Outsourcing, off shoring and more specifically, offshore outsourcing are the buzz words in the modern globalized world.

India's IT export boom can trace its beginning back to the mid-1980s, when Texas Instruments opened a branch in Bangalore to focus on development, followed a year later by Motorola. Mainly American and West European multinationals from the electronics industry followed suit in the period to the middle of the 1990s; but it was not until the second half of the 1990s that big software houses such as Microsoft, SAP or Adobe opened development centers in India. In a parallel development, the number of Indian companies to which major American firms contracted out programming assignments has soared to more than 3000. India's export of software and services total more than USD 12 billion.

Liberalisation has taken roots in India and the Govt. has steadily lowered interest rates, eased up forex restrictions, and freed banks from their social obligations. With the rupee fully convertible, Indian businesses are now free to invest anywhere.

In a world of globalised labour markets, there has been an increase in mobility of qualified and educated human resources, among developing and developed countries. The out-flow or "brain drain" of highly skilled human resources from different sectors are the matter of concern for the developing country like India. Sectors such as health, IT, education and agriculture are the areas where migration rate of labour is highest. But for some countries the brain drain has become a brain gain through migrant investments. Lack of development

of an economy, lack of economic growth, rule and law of a country, good governance are the main causes of migration. However, a number of policies and initiatives have already taken by the countries of origin and destination to specifically help to train, retain and regain skilled personnel for development. Migration is not a simple action taken by an individual for betterment of life. One individual moves to other country due to the influences of some economic and non-economic factors. Migration and settlement tend to be a long process.

3.3: Migration under conditions of globalisation

The economic barriers among different countries are broken due to globalisation. Capital can move to any country and the commodities can be produced anywhere due to globalisation. Natural resources can also be transported to long distances for processing without excessive cost. Several multinational companies (MNCs) and individual entrepreneurs are producing commodities in the less developed countries at a low cost using their cheap labour and other natural resources and then selling these products to other countries. However, for the process to work by the companies and entrepreneurs, the governments are expected to provide transparent and stable administration, maintain law and order and create a friendly and competitive economic environment. The state should thus facilitate entrepreneurs in taking their own decisions regarding output and employment mix, location, export, import, appropriation of profits, etc. Of course, some of the small entrepreneurs expect governments to provide certain infrastructural facilities and basic amenities. The big companies are, however, often willing to undertake this responsibility themselves, in exchange of long-term agreements or for certain special fiscal and administrative concessions. Economic liberalisation reduces economic inequality at the global level through acceleration of growth in less developed countries which affect the labour migration scenario. It is generally seen that the liberalisation policy is associated with the mobility of workforce from one country to another. Now it is impossible to analyse the impact of liberalisation programme on movement of population as no reliable data on migration are available after 1991, the year in which the programme was formally launched by the government of India. Our society is bound by caste and family system and the traditional values often act as a deterrent to migration. By the same logic, improvement in the levels of education and communication facilities would increase mobility.

Interestingly, however, an analysis of the trend in population mobility in India reveals that, despite significant improvements in education, transport and communication facilities, growth of industries, diversification of the economy, modernisation of norms and values, etc, population mobility has decreased during the recent decades.

Two main models of migration can throw some lights on migration and social relations. First, the '*Settler model*', according to which immigrants gradually integrated into economic and social relations, re-united or formed families and eventually became assimilated into the host society (sometimes over two or three generations); second, the '*Temporary Migration Model*', according to which migrant workers stayed in the host country for a limited period, and maintained their affiliation with their country of origin. Globalisation has changed the context for migration. New technologies of communication and transport allow frequent and multi-directional flows of people, ideas and cultural symbols to different countries.

Globalisation is not just an economic phenomenon. Flow of capital, goods and services cannot take place without parallel flow of ideas, cultural products and people. Under the conditions of globalisation skilled migration tends to increase and migrants to become more diverse in social and cultural characteristics. Countries encourage skilled and entrepreneurial migration but resist unskilled migration. Globalisation plays a very vital role in migration.

The four features of globalisation are:

1. The growth of digitalized technology and communication which has transformed production.
2. The expansion of market economy and world trade which has softened boundaries of national economies and integrated transnational trading zones.
3. The economic integration facilitates flow of capital, raw materials, goods, services and people across national boundaries and a freedom is associated with free trade materials.
4. Economic globalisation brings an increasing demand for highly trained human capital in advanced developed countries.

These features have direct or indirect linkages with migration and brain drain.

3.4: Growth of Indian born population in USA after Globalisation of Indian economy

According to WTO and World Bank Report the Indian Economy had started to get the fruits of Globalisation after 1998. So the migration of the skilled Indian population (basically the IT professionals) to the other countries due to the demand of the skilled labour and free trade also has increased. Table 3.2 shows that there was a paradigm growth of Indian born population in

different states of USA between 2000 and 2006. These Indian born population are well educated, well placed and skilled and many of them are IT professionals.

Table 3.2: Top 10 States for Growth of the Indian-Born Population in USA, 2000 to 2006

States in USA	2000	2006	Change 2000 to 2006
Wyoming	252	731	190.1%
Rhode Island	1,423	3,273	130.0%
District of Columbia	1,139	2,567	125.4%
Maine	590	1,323	124.2%
Arizona	9,134	19,982	118.8%
Washington	14,714	30,941	110.3%
Connecticut	15,108	29,437	94.8%
Alabama	4,280	7,858	83.6%
North Carolina	16,264	29,825	83.4%
Florida	32,295	58,090	79.9%

(Source: US Dept. of Labour, 2006)

3.5: India's Software Exports-Before and after Globalisation

In the year of 2008 India's software export reached to US \$40 billion. The growth is 72 percent comparing to the exports of \$23200 in 2007. Kiran Karnik, president of the association which has about 900 members, said the Indian software industry was on course to reach a target of \$US50 billion in sales by 2009. Software exports has major share in India's total exports. As of the year 2004-05, both software and services revenue grew by 32 percent to \$ 22 billions and \$ 28.5 billions in 2005-06.

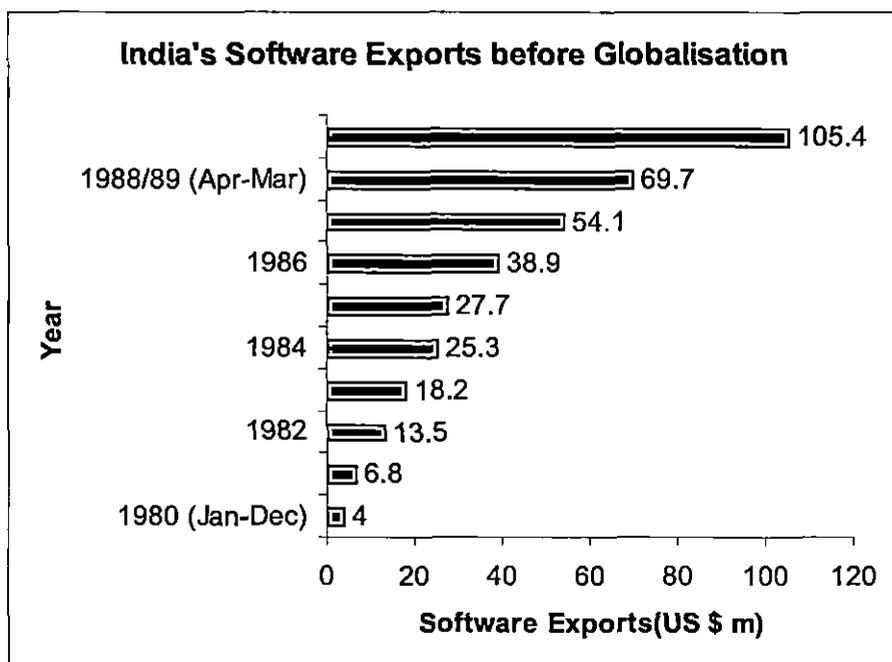
According to NASSCOM, India's domestic market grew by 24 percent. Presently Indian companies have concentrated on only two largest IT service markets. They are USA and the UK. Even Canada, Japan, Germany and France represent huge growth potential in the industry.

Table 3.3: Software Exports from India before Globalisation

Year	Software Exports (US \$m)	Export Growth (%)
1980 (Jan-Dec)	4	
1981	6.8	70%
1982	13.5	99%
1983	18.2	35%
1984	25.3	39%
1985	27.7	9%
1986	38.9	40%
1987	54.1	38%
1988/89 (Apr-Mar)	69.7	29%
1989/90	105.4	51%

(Source: NASSCOM Annual Report, 2001)

Fig 3.1: India's Software Exports before Globalisation



(Source: Based on Table 3.3)

Table 3.4: Software Exports from India after Globalisation

Year	Software Exports (US\$m)	Export Growth (%)
1990/91	131.2	24%
1991/92	173.9	33%
1992/93	219.8	26%
1993/94	314	43%
1994/95	480.9	53%
1995/96	668	39%
1996/97	997	49%
1997/98	1650	65%
1998/99	2180	32%
1999/2000	3600	65%
2000/01	5300	47%
2001/02	6200	17%
2002/03	7550	22%
2003/04	8800	17%
2004/05	12400	41%
2005/06	16800	35%
2006/07	23200	38%
2007/08	40000	72%

(Source: NASSCOM Annual Report, 2009)

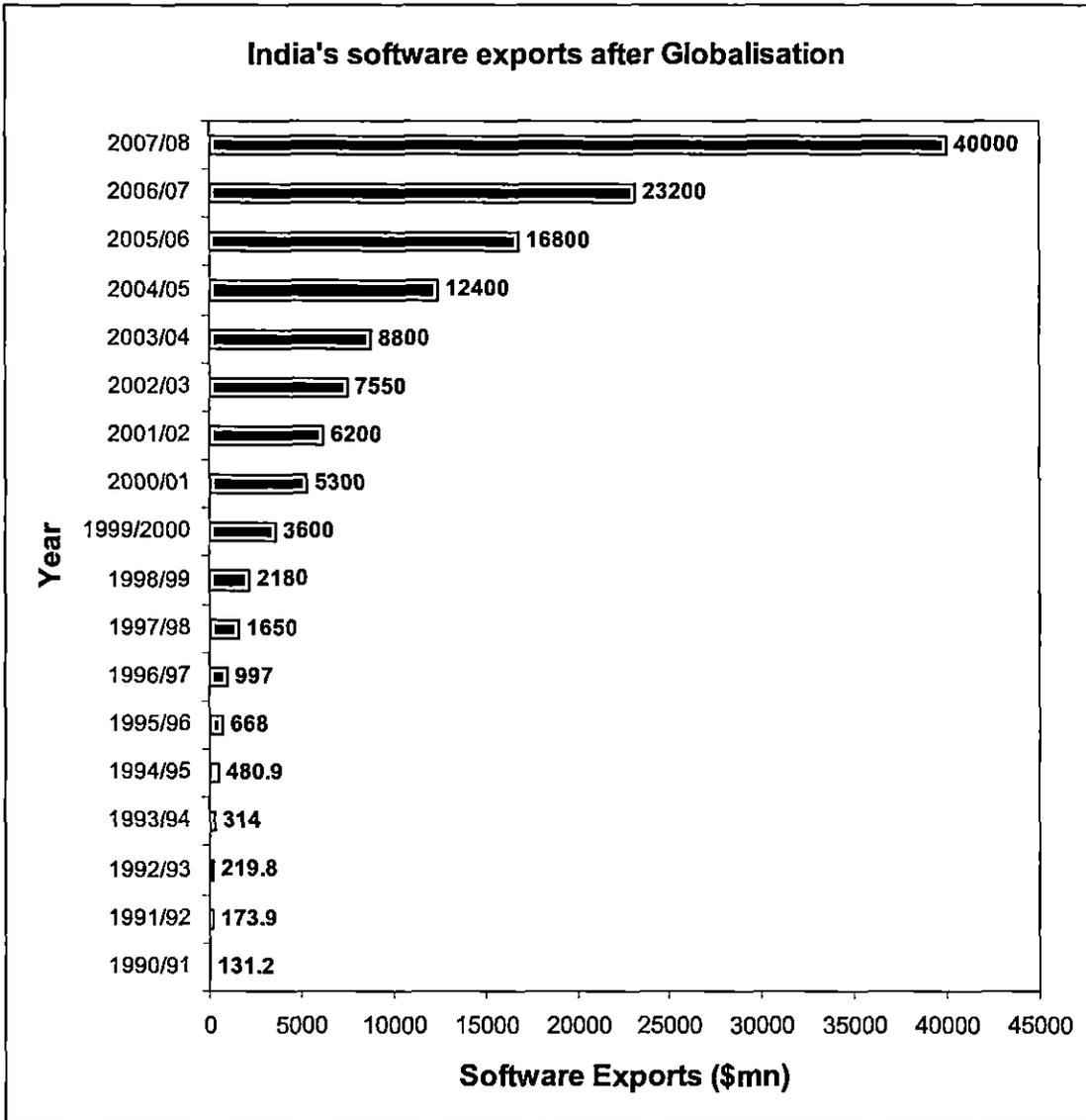
According to WTO the effect of Globalisation of Indian Economy can be seen from 1997. If we consider 1990-91 is the base year we can clearly see the export of Indian software was only \$131.2 mn. Whereas in the year of 1997 the export was \$ 1650.

Table 3.5: Top 10 Software Export Destinations (2001-02)

	Total SW Exports	
	(Rs crore)	(%)
USA	23,942	65.6
UK	5,149	14.1
Germany	940	2.6
Japan	912	2.5
Singapore	750	2
Netherlands	500	1.4
Canada	475	1.3
Australia	312	0.9
Switzerland	300	0.8
France	210	0.6

(Source: Data quest survey, 2002)

Fig 3.2: India's Software Export after Globalisation



(Source: Interviews, Indian Dept. of Electronics annual reports, Dataquest (India) surveys, 2009)

India's software and services exports have grown 32 percent to 31.3 billion U.S. dollars in 2006-07 and 40 billion in 2007-08, the Press Trust of India (PTI) reported, quoting the Indian information technology department. During 2006-07, electronics and IT exports went up to 35 percent over the previous fiscal, the PTI said. India's software and services export was estimated 31.3 billion U.S. dollars in 2006-07, compared to 23.6 billion U.S. dollars in 2005-06, an increase of over 32 percent in dollar terms and 36 percent in Indian rupee terms, the department said. In its forecast, IT association NASSCOM has said India's revenues from software and services will reach the 50 billion U.S. dollar mark in 2010-11.

3.6: Migration-Types and Patterns

Economic globalisation internationalizes national economies, encourages free movement of people/goods. Increased mobility not only from less to more developed regions but all among countries within integrated zone. EU maintains the principle of free movement first for migrant workers and then for all EU citizens. NAFTA signed 1994, has visa provision to allow professionals cross border employment. Economic globalisation removes mobility barriers and allows high trained human capital to move freely to different countries.

Since economic globalisation is premised on information technology, countries race to invest in the new economy in order to sustain future national growth and to capture a larger share of expanding world market. Hence, highly trained professionals responsible for the growth of the new economy --- those in information technology, finance, commerce, and advanced sciences --- are in great demand. Thus, economic globalisation creates the demand and the competition for highly trained professionals and skilled workers in the world labour pool.

World migration from less to more developed regions of the world is very common after globalisation. New demands are generated for immigrants in highly developed countries due to demographic transitions. Globalisation creates contradictory labour demands and displacements, creating mobility opportunities for some and uprooting others. Economic globalisation creates contradictory tendencies in international migration. World migration has added racial and cultural diversity to historically homogeneous populations

Some contradictory tendencies in migration are freedom of movement associated with free trade, high degree of mobility for those associated with the prosperity of the new economy, highly developed countries offer high remuneration and return to specialized human capital, hence movement from less to more developed regions. Developed countries also attract unskilled workers displaced by globalisation, who sought entry as illegal migrants & asylum seekers. Most immigrant countries define immigrants' value in terms of human capital. Competition for skilled immigrants leads to softening entry requirements. Avoiding unskilled immigrants leads to tightening border to bar the unwanted immigrants. Globalisation brings a contradictory response of border control: flexible and accommodating for high skilled workers towards unskilled workers and asylum seekers.

The migration of highly trained immigrants from less developed to more developed regions is a brain drain. But such a drain can not be carried as the economic disparities between regions get reduced. Countries which can maintain a competitive remuneration level and an enlightened policy of multiculturalism and integration will be better able to attract and retain immigrants. There is a need for international community to develop a universal framework to regulate international migration.

3.6.1: International Patterns of Migration

International migration occurs when persons cross state boundaries and stay in the host state for some minimum length of time. Migration occurs for many reasons. Many people leave their home countries in order to look for economic opportunities in another country. Others migrate to be with family members who have migrated or because of political conditions in their countries. Education is another reason for international migration, as students pursue their studies abroad. While there are several different potential systems for categorizing international migrants, one system organizes them into nine groups: temporary labour migrants; irregular, illegal, or undocumented migrants; highly skilled and business migrants; irregular migrants; refugees; asylum seekers; forced migration; family members; return migrants; and long-term, low-skilled migrants. These migrants can also be divided into two large groups, permanent and temporary. Permanent migrants intend to establish their permanent residence in a new country and possibly obtain that country's citizenship. Temporary migrants intend only to stay for a limited periods of time. Both types of migrants have a significant effect on the economies and societies of the chosen destination country and the country of origin.

Similarly, the countries which receive these migrants are often grouped into four categories: traditional settlement countries, European countries which encouraged labour migration after World War II, European countries which receive a significant portion of their immigrant populations from their former colonies, and countries which formerly were points of emigration but have recently emerged as immigrant destinations.

3.6.2: Internal Patterns

Internal migration occurs when persons migrate from one district to other district or one province to other province within a country's boundary. Generally the persons from rural

areas migrate to the big cities or urban areas for jobs, businesses and other purposes are also called Internal Pattern of migration.

3.6.3: Sectoral Patterns

Skilled personnel leave one sector and join to other sector in a country or in abroad. Low wages, working conditions and career prospects cause the professionals to move out of one job into other jobs including the Govt as well as private sector.

3.6.4: Patterns of Female Migration

Most of the female labour migrants, both within and outside of Asia, are unskilled. Migrant women are concentrated in jobs regarded as 'typically female': those of domestic workers, entertainers (often a euphemism for prostitution), restaurant and hotel staff, and assembly-line workers in clothing and electronics. These jobs are low in pay, conditions and status, and are generally shunned by local women. Many are often associated with patriarchal stereotypes of female characteristics, such as docility, obedience and willingness to give personal service. Occupations like domestic service lead to isolation and vulnerability for young women migrants who often have little protection against the demands of their employers (Lim and Oishi 1996).

3.7: Types of Migrants

Migrants are of four categories: professional, skilled, semi-skilled, and unskilled. Doctors, engineers, teachers and nurses are considered professionals. Manufacturing or garment workers, drivers, computer operators and electricians are considered skilled, while tailors and masons are considered semi-skilled. Housemaids, cleaners and menial labourers are considered unskilled workers. During the early years of short-term labour migration, the proportion of professional and skilled workers was higher than that of semi-skilled and unskilled workers. In recent times, however, semi-skilled and unskilled workers have made up the majority of the migrants. In this study the IT professionals are the skilled workers who are taking migration to foreign countries. However the empirical data indicate that remittance flows did not increase significantly with a rise in the number of emigrants. For example, in 1997 emigration grew by 79 percent compared to the figure for 1996, and the remittance flow increased 12.52 percent, while in 1998 emigration grew by 29 percent while growth in remittances increased only by 4.86 percent. Wage rates have also fallen

drastically over the past decade. It is also to be noted that at present the structure of job requirements in the receiving countries is undergoing significant changes. Skill development and occupational diversification are expected to become crucial. The ability to access opportunities opening up in developing countries, such as India, and developed countries, such as the UK, USA, Canada, and Japan, are also going to play an important part in this process. It is also imperative to think about a planned labour migration policy to address the demand side of the international market. Taking into account its huge population resources, India needs to review and examine its human resource development strategy in the light of the new and challenging opportunities in the international labour market.

3.7.1: Skilled & Professional Migration

A skilled worker is any worker who has some special skill, knowledge, or (usually acquired) ability in his work. A skilled worker may have attended a college, university or technical school. Or, a skilled worker may have learned his skills on the job. Examples like Doctors, Pilots, IT professionals etc. The methods of procuring skilled workers has changed in recent years due to globalisation because of regional shortages of skilled workers, migration, outsourcing, and other factors. All countries are in a process of change and transition which makes possible the migration of skilled workers from places of lower to higher opportunities in training and better working conditions. Although materialistic rewards play a role in skilled workers migration, it is the lack of security, opportunity and suitable rewards in the homeland that fundamentally makes this massive movement of people possible, going from places of lesser development to affluent societies. Some developing countries see the migration of domestically trained professionals abroad not as a drain but as a gain because these "brain bank" will return with their accumulated skills to their homeland and will contribute to the growth of the country. The demand for Information Technology (IT) skilled workers is on the rise. This has led to a lessening of the immigration restrictions prevalent in various countries. Migration of skilled workers from Asia to the United States, Canada, the United Kingdom and Australia is common, especially among students and among IT skilled workers.

3.7.2: Semi Skilled Migration

Semi skilled workers are partly skilled or trained but not sufficiently so to perform specialized work. Generally the construction companies, plantation companies recruit semi-skilled workers world wide. They need not to pay hi-fi salaries like skilled workers.

3.7.3: International Migration from Independent India

Two distinct types of labour migration have been taking place from India since independence:

- People with technical skills and professional expertise migrate to countries such as the USA, Canada, UK and Australia as permanent migrants (since the early 1950s).
- Unskilled and semi-skilled workers migrate to oil exporting countries of the Middle East on temporary contracts, especially following the oil price increases of 1973–74 and 1979.

The emergence of India as an information superpower is definite. As a major part of the young Indian professionals are working in several information technology based companies, information technology enabled service companies, software based companies, which have their headquarters in other countries outside India, the future demand for the work force suggests that countries like India and China would supply to the requirement of skilled labour pertaining to the information technology sector, industrial sector, telecom sector, electronic sector, etc. The role of migration in globalisation suggests that India is going to be among the next economic superpower in the forth coming decades.

3.7.4: Some of the recent trends in migration of labour:

- The destinations of labour migration are changing.
- The migration of labour becomes temporary.
- The migration of labour is exhibiting a trend where more women labours are on the move.
- The migration of labour is tipping the scale in favour of the unskilled or semi-skilled labour.
- The migration of labour is not uniform in nature.
- The migration of skilled labour raises the total production and the gains in the developed and developing countries.
- The migration of skilled labour increases the effective use of resources across the world.

- The migration of skilled labour boosts business endeavors and rejuvenates the sagging economies of Europe, Asia and helps the United States to have sustainable growth.
- The migration of skilled labour increases the amount of investments, savings, and the formation of the human resources.
- The migration of skilled labour increases the remittals to the other under developed countries.
- The migration of skilled labour gears up the speed of innovation.
- The migration of skilled labour increases the per capita income in turn boosting the gross domestic product of the host country.

Beginning as a filter in the 1950s, the skilled migration to the developed countries picked up in the post-mid-1960s, and became more prominent with the more recent migration of the IT workers, and nurses in the twenty-first century, contributing to the concentration of skilled Indian migrants in the US and Canada, the UK and other European countries, Australia and New Zealand. Side by side with this skilled migration to the developed countries, the twentieth century had also witnessed large-scale migration of unskilled and semi-skilled Indian labour to the Gulf countries in west Asia.

In the developed countries today, the focus on the Indian skilled migration remains in the United States, with up to 80 percent of Indian skilled migration to all developed countries. Indian immigration in the US, which constituted a minuscule of less than 1 percent of global immigration from all countries during the 1950s and 1960s, crossed a mark of 7 percent in 2004. Even in 2003, when security concerns in the post 9/11 phase had brought in a restrictive immigration phase in this country, Indian share amongst global immigrants thus continued to increase (from 6.7 percent in 2002 to 7.1 percent in 2003). In the two top categories of skilled immigrants in 2001, viz., professional and technical, and executive, administrative and managerial occupations, Indians occupied very high proportions of 24 percent and 11 percent respectively. In 2003 and 2004, one in every four global immigrants with an occupation has been an Indian (25 percent for 2003, and 24.7 percent for 2004). The 1965 amendments to the US Immigration and Nationality Act, which formed the basis of all these, remained the principal determinant of Indian skilled immigration into the US for one quarter of a century between 1968 and 1992. The new legislation gave priority to highly trained and educated professionals, at least for the first seven to ten years explicitly.

As a result, urban, educated, and English speaking masses of Indian population became distinctly visible in the US, carrying a large share of India's human capital to the U.S., and causing brain drain for India because, as Jensen (1988, 280) recorded, almost a hundred thousand engineers, physicians, scientists, professors, teachers, and their dependents had entered the U.S. by 1975. India's brain drain to the US had become less after the mid-1970s. After 1992, it was the relatively less noticeable route of temporary migration that started to become predominant. The 1990 Amendments in US immigration law, brought into effect in 1992, explicitly favoured the building up of the human capital capabilities of America by fulfilling its current and future requirements of highly skilled knowledge workers. These amendments had few restrictive clauses, like the introduction of a new definition for the highly skilled temporary workers, viz., the well-known nonimmigrant H1-B visa category, with an annual cap of 65,000 visas per year worldwide etc.

The US Senate had to clear a bill for a limited expansion of these visas to 337,500 for the three-year period from 1999 to 2001. This was because the US had faced a decline in key undergraduate science degrees, and due to this there was an acute shortage of staff in high technology industries like software development. In 1998, two out of every five H-1B visas (42 percent) were issued to Indian IT software professionals. After 2001, the number of H-1B visas issued to Indians went down because of post-9/11 security concern in the U.S. The subsequent recession also burst the IT bubble and the skilled manpower need was drastically gone down. But now the U.S. government has been under continuous pressure of different lobby groups, including the American industry and business to increase the H1-B visa limit once again.

Only the skilled Indian professionals are not migrating to the developed countries, the Indian students are also migrating temporarily to the developed countries for their studies. Infact the number of Indian students in USA is the highest than the students from other countries. Data collated by the US Institute of International Education's *Open Doors 2005* survey revealed that in 2004-05 India retained its No. 1 position in the US university enrolments (followed by China, Korea, Japan, Canada, and Taiwan) for the fourth year in a row. In 2005-06, the numbers of applications from Indian students have been reported to have registered a 23 percent increase over the previous year, the highest amongst all countries (*Hindustan Times*, 23 March, 2006). To serve the dual purpose of sustaining an expensive higher education system, and meeting *short-term* labour shortages, both the UK

and the US, with other developed countries following suit, have adopted a policy of allowing foreign students in their universities respectively, to stay on and work, rather than return to their countries of origin on completion of their degrees (*The Hindustan Times*, March 2005; Khadria 2006). In addition, the destination countries gain political mileage in the form of a bonus that the foreign students become their long-term ambassadors in the international political arena. India has thus become a destination for internationally renowned educational institutions shopping for knowledge capital – i.e., to woo the Indian student (*The Hindu*, Nov 26, 2000). In October 2000, four countries had mounted education fairs in Delhi and other Indian cities, and since then it has become a regular feature of bilateral relations in India. Indian students accounted for 4 percent of all foreign students enrolled in tertiary education in OECD countries in 2001. Almost eighty percent of Indians migrating abroad for higher education went to the US in 2001, occupying a 10 percent share amongst all foreign students enrolled in the US. In 2004, this share of Indian students amongst all foreign students in the US went up to 14 percent.

The Socio-economic and political profile of the skilled Indian diaspora in the developed countries reflects the empowerment of the Indian migrants in the developed countries over time. Within the European Union (EU) – the largest economic entity in the world today – two-thirds of the entire Indian migrant community still resides in the UK. The Indian community is one of the highest-earning and best-educated groups, achieving eminence in business, information technology, the health sector, media, cuisine, and entertainment industries. In Canada, with just 3 percent share in a population of 30 million, Indo-Canadians have recorded high achievements in the fields of medicine, academia, management, and engineering. The Indian immigrants' average annual income in Canada is nearly 20 percent higher than the national average, and their educational levels are higher too. In the east, there are 30,000 Indian citizens in Australia and New Zealand and they are engaged in domestic retail trade, medical, hospitality, engineering, and Information Technology sectors. Countries like Japan, Korea, and Singapore are also trying to attract Indian talent. Migration of Indians to the US has been the backbone of Indian scientific diaspora formation there. No other diaspora preceding the Indian numerical rank acquired such positions in USA. It is hardly surprising therefore if in terms of the place in the US economy indexed by employment, occupation, education and income of the immigrants, the Indian diaspora had continued to rank amongst the top all through the 1970s till the present. There are over 1000 US-based organizations of Indians in North America, with

branches in Canada. These represent various interest groups in India, ranging from regions to states to languages, etc. Religion, caste, cultural and linguistic identities find significant space in these associations and networks. However, some professional groups are involved in grass-root development activities in India as well as in the welfare of their members abroad in the professions. India had a moderate number of universities at the time of independence but it lacked highly trained scientific and technical human resources and an institutional base in science and technology (S&T) to embark upon the industrialization and modernization planned under the Nehruvian leadership of the early decades. The first Indian Institute of Technology was established nine years after India's independence, at Kharagpur in 1956. The five IITs, modeled on the Massachusetts Institute of Technology (MIT), were created to train the best engineers who would play an important role in assimilating technological change and revolutionizing India's industrialisation programme. The IITs not only created space for hundreds of faculty members, but also attracted a good number of them back from abroad. As all the IITs in the beginning had intellectual and material support from various advanced donor countries such as the USA, USSR, Germany, and the UK, they introduced the guest faculty system from the respective countries. The exchange put Indian scientists in touch with the cutting-edge of technological research and advanced training (Indiresan and Nigamm 1993). The Council for Scientific and Industrial Research (CSIR) which instituted a National Register of Scientific and Technical Personnel in the late 1940s, created a special section – the Indians Abroad section of the National Register in 1957 towards this end, which of course did not succeed.

The migration of the highly skilled professionals from India to the developed countries was first seen as brain drain when the Nobel Prize of 1968 in medicine brought global recognition to gifted Indian scientists Har Gobind Khorana who had migrated to the United States and naturalized as an American citizen around that time. However, the IT bubble burst in the wake of the American recession and hordes of techies were sent back to India, having lost their H-1B visa contracts.

Western European countries in the EU, including the UK looked as a more sustainable destination, and East/South East Asia looked at as an emerging destination. However, Germany's Chancellor Gerhard Schroeder's scheme of issuing 20,000 Green Cards to computer specialist from non-EU countries, mainly India (between 7,000 to 10,000) and

Eastern Europe launched in August, 2000. Eventually, opportunities of employment multiplied within India under the emergence of business process outsourcing (BPO). Now MNCs are moving their capital to India rather than labour moving out of India. In fact, the latest NASSCOM Strategic Review (2005a) and the NASSCOM–McKinsey Report (2005b), apprehends huge shortage of IT-related as well as BPO-related skills in India. The report said that currently only about 25 percent of the technical graduates and 10–15 percent of general college students were suitable for employment in the offshore IT and BPO industries respectively, and estimated that by 2010 the two industries would have to employ an additional workforce of about one million workers near five Tier-I cities, viz., New Delhi, Bangalore, Hyderabad, Chennai and Mumbai, and about 600,000 workers across other towns in India (*Economic Times*, 17 Dec, 2005) will get jobs. On talent supply, it is said that India would need a 2.3 million strong IT and BPO workforce by 2010 to maintain its current market share. The report projected a potential shortfall of nearly 0.5 million qualified employees – nearly 70 percent of which would be concentrated in the BPO industry.

3.7.5: High-Tech Migration

While information technologies have been used to control migration across international borders, international migration has facilitated the development of information technologies of the “new economy” that have boosted globalisation. To encourage the information revolution which actually increasing the growth of their economies, the US, Canada, Australia, New Zealand, Germany, Ireland, the U.K. and the Czech Republic have planned special visas and programmes to attract highly skilled computer programmers and other IT professionals from developing countries such as India and China as well as East European countries and Russia. Moreover, a rapidly growing cyberspace of multiplying websites developed by these and other IT workers has globalized the market for skilled workers themselves as high tech job recruiting and placement has gone online.

The impact of international migration on the development of information technologies in USA is displayed in the epicentre of the information revolution, Silicon Valley. For example, about a third of the valley’s engineers are foreign born. Chinese and Indian immigrants to Silicon Valley alone have started some 2,700 companies since 1980, accounting for a sixth of the total sales seen in the valley in the last 20 years (Zachary 2000; Saxenian 2002). None other than Federal Reserve Chairman Alan Greenspan has

argued that the 11 million immigrants who came during the 1990s have been crucial to sustaining the US' longest-ever economic boom.

Largely due to the influence of the IT lobby, Congress passed the "American Competitiveness and Work Force Improvement Act" in 1998. This legislation increased the number of temporary employment (H-1B) visas from 65,000 to 115,000 per year for fiscal years 1999, 2000 and 2001. Under the H-1B program, employers sponsor workers for a three-year visa that is renewable to six years total.

The role of the IT industry in immigration to the U.S. is highlighted in the changing demographics of the recipients of visas for temporary workers. Of the H1-B visas granted in 1999, 53.3 percent were for systems analysts and programmers, 4.9 percent for electrical engineers, 3.4 percent for other computer occupations. Moreover, the major countries of origin had shifted dramatically as well. While Great Britain and the Philippines were the top countries of origin in 1989, Indian nationals received 55,047 of the 116,695 H-1B visas in issued in 1999. British high-skilled workers came in second with 6,665 and China third with 5,779. After the internet economy bubble popped, post-Sept 11th uncertainties over the economic and security environments reduced hiring of H1-B workers and foreign student enrollment in U.S. universities dropped off. Other countries were waiting with open arms for experienced high-tech workers leaving American shores and computer science and engineering students opting against study in the U.S. For some time now, Canada, Australia and New Zealand have had immigration policies based on point systems, in which desired skills count toward attaining permanent resident status. Additionally, the New Zealand Immigration Service has a special unit in India to help IT professionals interested in immigrating.

3.7.6: Body Shopping and Onsite/Online Labour Migration

Basically there are two types of IT professionals who are migrated to other countries. One is called the Body Shoppers and another is called as Onsite Labour. Body shoppers or Body Migration means the physical migration. The software professionals hired through body shopping are required to be present physically at the site of work. Body shopping is generally done through some kind of recruitment agencies in India for providing people on a temporary basis.

Whereas On-line Labour or On-line IT professionals can have three types of features:

i) the programmers in India are connected to clients' machines in the US through 64 Kbps and above satellite links and Internet/e-mail; ii) where the situation demands, the client is able to monitor the progress on a continuous basis, implement quality checks and communicate with the programmers and analysts, as if they were on site; iii) since the US and India have an average 12-hour time zone difference, the client enjoys—for certain software projects—virtual round-the-clock office hours. Lots of companies in India organize programmers to provide on-line software labour to the companies in the United States and other countries. By December 1998, more than 109 Indian software firms had acquired international quality certification (Nasscom 1999). Some well-known U.S. firms that figure in the client list of these Indian firms are Intel, Merrill Lynch, AT&T, and IBM among many others. According to *The Economist* (1996, p. 32), "More than 100 of America's top 500 firms buy software services from firms in India, where programmers are typically paid less than a quarter of the American rate." By 1998, Indian software providers have already captured an 18.5 percent market share in global cross-country customized software work, and the Indian IT sector has consistently achieved more than 50 percent compounded annual growth rate since 1991 (Nasscom 1999). National Task Force on Information Technology—a support arm of the Indian government—has set a target of \$50 billion of exports by 2008 (Nasscom 1999). And the export earnings in FY08 stood at approximately USD 40.0 billion with a growth of 36 percent. It must be noted that these US dollar earnings assume even bigger proportions on conversion into the Indian currency (Rupee) in terms of their purchasing power. The software relationship between India and the U.S. is particularly significant. Just as India is becoming the largest supplier of software labour to the United States both in terms of body shopping and of online labour. And U.S. has turned out to be the largest source of foreign exchange earnings for India.

The mutual importance of the US and India for each other is reflected in the following statement of one of my informants, a spokesperson for the National Association of Software and Service Companies (NASSCOM): we can't deny the fact that the U.S. is a major market for our software industry. So we just can't deny the fact that it's the largest market in the world. If the Indian software engineers were to go back home, the U.S. IT industry would collapse the next morning. Infact India has become a powerful supplier of IT professionals and about 70,000 H1B visas were offered to IT specialists from India to USA in recent years. Before 2001, UK was the best option for migration for the Indian IT

professionals. But after 2001 USA has become first preference of the *IT* professionals for migration destination. In 2000, 19.7 percent of work permits granted by the UK went to the computer industry, which was the six times bigger than the numbers in between 1995 and 2000.

3.8: Migration to Industrialised Countries-An overview

Although labour flows to the industrialised countries have continued for a long time, information on them is insufficient. Whatever analyses have been carried out to date on the composition of these flows is based on immigration statistics of destination countries. Nayyar (1994) provides an analysis of the trends in migration flows from India to three industrialised countries, the USA, Canada and the UK, for the period between 1951 and 1990. The USA received the largest number of Indian emigrants.

The general trend shows that Indian immigration, which constituted a negligible proportion to the total immigrants in the USA and Canada, increased rapidly during the 1960s and 1970s. Of the total immigrants in the United States and Canada, Indians constituted migration, the impact on pro-poor growth should be maximised through appropriate institutional and policy measures.

Four major categories of interventions can be envisaged, which will differ for internal and external migration. These categories relate to:

- addressing underdevelopment and improving the synergy between migration and development;
- improving labour market outcomes;
- ensuring basic entitlements to migrant workers; and
- improving the social and political environment for migration.

The proportion of Indian immigrants to the UK declined drastically from around 20 percent during the 1960s to about 10 percent during the 1980s. Migration flows to industrialised countries during the 1990s, considered as the most critical phase of contemporary globalisation, are of great importance both for theoretical and policy reasons. However, there is hardly any detailed analysis of the changing nature of this flow. The information in relation to major destinations like USA, UK, Canada and it is evident that the annual inflow of Indian immigrants in the USA and Canada increased in the 1990s. The average annual inflow of Indian immigrants to the USA increased from 26,184

persons during the 1980s to 38,330 (3.5 percent of total immigrants) during the 1990s. In the case of Canada, the average annual inflow of Indian immigrants increased from 7,930 during the 1980s (6 percent of its total immigrants) to 13,770 during the 1990s (7 percent of total immigrants).

Table 3.6: Stock of India-born Population (2001) in Different Countries

USA	11,00,000(Approx)
Canada	2,40,560 (1996)
UK	8,84,000
France	60,000 (approx)
Netherland	8,265
Germany	37,000 (approx)
Australia	95,455

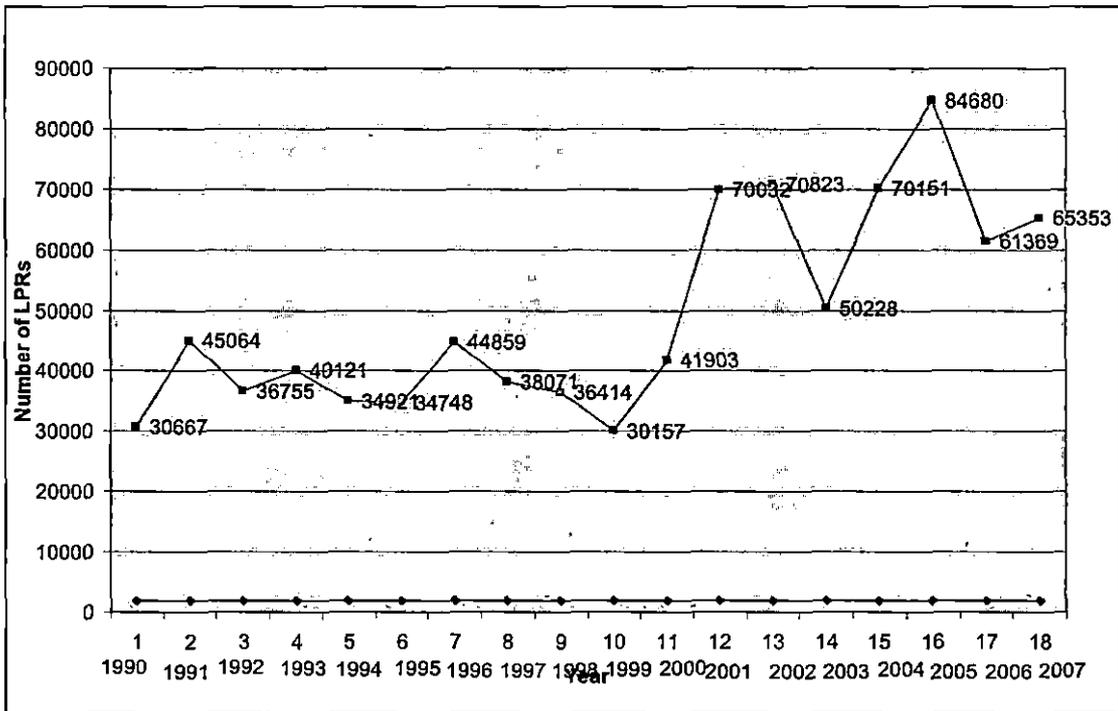
(Source: DOL Govt of India, 2001)

After 1990 there was a significant flow of Indian professionals, especially IT professionals, to countries such as Australia, Germany, Japan, and Malaysia. For instance, nearly 40,000 Indians migrated to Australia, accounting for 4.1 percent of total immigrants during this period. Migration from India to industrialised countries, though modest in scale, grew steadily between 1950 and 2000. Nearly 1.25 million Indians have migrated to the principal destinations. The flow was especially impressive during the 1990s, a period that incidentally witnessed tightening of immigration policies in many industrialised countries. The average inflow of Indian immigrants to these principal destinations have in fact increased from around 10,300 persons per annum in the 1950s to around 60,000 persons per annum during 1990s. The growth during the 1990s is especially striking as it took place in a period when immigration laws were made more restrictive in many industrialised countries. *Occupational distribution and skill composition* analysis of the occupational distribution of the Indians immigrating to industrialised countries shows that in the first half of 1970s, persons with professional expertise, technical qualifications and managerial talents constituted a large proportion of the emigrant workforce from India to the USA.

3.9: Some Other Migration Statistics and Impact of Globalisation on Migration

The Indian foreign born accounted for about 4.2 percent of all lawful permanent residents living in the United States in 2006. According to data from the Office of Immigration Statistics (OIS), the Indian foreign born accounted for 4.2 percent (510,000) of the 12.1 million lawful permanent residents (LPRs, also known as green card holders) living in the United States in 2006. They are the third-largest LPR group after the Mexican born (27.3 percent or 3.3 million) and Filipino born (4.5 percent or 540,000). About 886,000 Indians have gained lawful permanent residence in the United States since 1990. Between 1990 and 2007, 886,316 Indian-born immigrants obtained lawful permanent residence in the United States (see Figure 12). This figure shows that the impact of globalisation had boomed up the permanent migration of Indian skilled professionals to USA. The Indian born accounted for 6.2 percent (or 65,353) of the total 1.1 million immigrants who received lawful permanent residence in 2007.

Figure 3.3: Number of Indian Born Who Received Lawful Permanent Residence in the United States, 1990 to 2007



(Source: US Dept. of Labour, 2008)

Nearly half of Indian-born lawful permanent residents in 2007 were employment-sponsored immigrants. Of the 65,353 Indian born granted LPR status in 2007, 43.9 percent (28,703) were employment-sponsored immigrants, 27.9 percent (18,205) were immediate

relatives of US citizens, 23.8 percent (15,551) were family-sponsored immigrants, and 4.1 percent (2,680) were refugees. Indian-born lawful permanent residents accounted for 2.4 percent of all those eligible to naturalize as of 2006. Indian-born LPRs are the 10th-largest group of permanent residents eligible to naturalize. According to OIS estimates, of the 8.3 million LPRs eligible to apply for citizenship as of 2006, 200,000 (2.4 percent) were born in India.

The Indian born were the fourth-largest group of student and exchange visitors admitted to the United States in 2006. In 2006, the United States admitted 69,790 student and exchange visitors and their families from India, or 6.0 percent of the total. They are the fourth-largest student and exchange visitor group after the South Korean born (11.6 percent or 135,265), Japanese born (7.7 percent or 90,490), and Chinese born (6.0 percent or 70,503). Trends in the annual outflow of migrant labour from India to the Middle East for the period 1976 to 2001 based on the available statistics, although an underestimate, are outlined in Figure 3.3. The data show that out migration increased at a phenomenal rate through the late 1970s, peaking in 1981. From 1979 to 1982, nearly 234,064 persons per annum had migrated from India to the Middle East for employment purpose. The period during 1983 to 1990, however, witnessed a significant reduction in the number of Indian workers migrating to the Middle East with the average number of persons migrating per annum declining to 155,401. Such a decline could mainly be attributed to the reduction in demand for migrant workers in the Middle East emanating mainly from the oil glut of the early 1980s. Viewing this trend, apprehensions were expressed in many quarters as to whether Indian labour migration to the Middle East would be sustained in a significant manner in the next couple of decades.

These apprehensions were further aggravated by the events relating to the Gulf crisis of 1990-1991 which forced nearly 160,000 Indians to return home from the warzones in distressed conditions (Sasikumar, 1995). Contrary to apprehensions of declining out migration, evidence indicates that labour migration from India to the Middle East has picked up substantial momentum since the initial hiatus in the early 1990s. During 1992–2001, nearly 360,000 persons per annum migrated from India to the Gulf countries. This is significantly higher than the quantum of labour outflows from India attained even during the ‘Gulf boom’ of the late 1970s and early 1980s. Within India, migration to the Middle East originates from a number of states. A detailed review of the migration literature in India, however, reveals Kerala has always had a dominant position in terms of the export

of manpower to the Middle East. Three states, Kerala, Tamil Nadu and Andhra Pradesh together contribute to about 60 percent of those who have obtained emigration clearance. In terms of the share of these prominent states, there has been a steady decline in Kerala's contribution where as the share of Tamil Nadu and Andhra Pradesh has registered considerable increases. This could also mean that larger numbers of people who are migrating from Kerala are now engaged in skilled/professional related activities in the Middle East where as there is a larger outflow of unskilled labourers who require emigration clearance emigrate from the other states. Return migration is an inevitable aspect of temporary or contract migration. In the case of Indian labour migration to the Middle East, return migration has assumed important dimensions since the mid 1980s.

After 1991 and in that period US had announced an increase in the H1B visa or the work permit visa from a mere 65,000 to 2 lakh for the Indian IT professionals and then Germany also announced a raise in its visa numbers to 20,000, which are specifically for IT related jobs. This move, in fact followed the German Chancellor's call to Indian IT professionals to take up opportunities in his country. Not to be left behind, Japan and Australia also followed suit. Though the UK was already in the reckoning, it was only in recent times that it is pitching for IT in a big way. The Japanese proposal, which too came in during its Prime Minister's visit to Bangalore, includes issue of multiple-entry visas valid for three years to Indian IT specialists.

A National Association of Software and Services Companies (NASSCOM) report says that in 1991, when the exports of the IT companies were close to \$100 million, almost 95 percent of the exports were to the USA with Europe accounting for the rest. Now, at the end of the decade, when software and services worth \$2.65 billion dollars were exported, almost 23 percent went to Europe and 60 percent to the US. The figure is expected to rise by another 10-15 percent in the next five years in favor of Europe. Still, many were cryptic when questioned about a shift in exports from the US to newly opened European and other traditionally closed markets such as the Middle East. But Indian professionals, who have always worked to stretch their horizons towards newer and better opportunities, seem to welcome the opening up of new opportunities with its associated challenges. This is evident from the fact that software companies are beginning to see a steady increase in their software exports to Europe and other countries. The US no longer has a monopoly hold over our software exports.

Though IT in a larger sense consists of many related fields like e-commerce, telecom and wireless, when it comes to software exports, the perceived notion is that e-commerce related exports form a large chunk of the US market and wireless application software dominate the European market. By and large, e-commerce solutions dominate the US market whereas wireless holds the swing in the European market. Embedded technology solutions form a core area of the European segment and we have had excellent track record in this area. A marketing professional from a leading software company says that his company ventured into the German market in the area of Y2K and e-biz solutions even before the now hyped up visa boom. He admits that though his company faced problems initially, it is now being acknowledged for the quality project carried out and is now one of the sought after solution providers. The company's software exports to Europe, mainly to the UK and Germany, account for 30-40 percent of its revenues. And, this figure is expected to improve in the coming years.

According to a report, the Indian IT sector can clinch a major share of the \$2-3 trillion market for e-commerce and other IT enabled services such as medical transcription and call centers including many outsourcing works. Another report, in fact says that IT is now heading to be the major revenue earner and could contribute significantly to the country's GDP in the coming years. Though, many of them attribute this to the cheap labour available, it's an established fact that recognition has come at last although late for all the hard work and quality inputs.

India has one of the brightest, skilled, experienced, English speaking pools of Software & Hardware professionals in the world. The Indian IT professionals are adaptable, hard-working, intelligent and dedicated and they have proven their courage all over the globe. Top Indian and Multi-national organisations are finding consistently effective, experienced and competent IT Software Programmers, Specialists and Administrators for work in U.S., Europe, Australia, Far-East and India.

3.10: Migration of Software Professionals from Indian IT Companies in Globalised Regime

Indian IT professionals are high in demand in all over the world. After 1991 the establishment of IT Companies in India and in other developed countries the number was gone up drastically. The rate of migration of skilled software professionals from Indian IT companies was also very high in that period. The Indian IT professionals are well recognised by USA, Canada, Australia, New Zealand and Gulf Countries. The German Green Card, the American H1-B visa, the British work permit, the Canadian investment visa, the Australian student visa, the New Zealand citizenship, all are encouraging to acquire the Indian talents. USA has become a popular destination for migration of IT professionals. Out of total IT migration from India, 70 percent migration takes place in the USA only. Now the question is: why the IT professionals from India are in a great demand? The main reason is cost to company (CTC) of an Indian IT professional in USA is \$60000-70000 per annum, whereas for an American professional the CTC is near about \$100000. It caters the economy of the software houses. Next reason is the education level of the Indian IT professionals. Indian education system is highly recognised by the world. IITs, IIMs, IISCs, RECs are the reputed Institutions in all over the world. The English speaking capabilities of the students are very good. So for these reasons the demand of the Indian IT professionals is very high. Most of the Indian IT professionals are migrated to USA only. Out of the total migration takes place every year, 70 percent takes place in USA only.

For migration of the IT professionals to USA two types of visas are required. H-1B visa and L-1 visa. Both H-1B and L-1 visas are temporary in nature but the 'Green Card' holders are the permanent residents of USA. Indian technology majors received the maximum number of H-1B work permits (Rediffmail.com, 5th March, 2009), according to the statistics for 2008 published by US immigration authorities.

The figures provided more ammunition to the critics of the H-1B visa programme who have opposed the dominance of Indian firms when it comes to bagging H-1B visas.

The statistics is for the fiscal year which ended September 30, 2008. In 2007 also Indian companies topped the list of H-1B recipients. Six of the top 10 visa recipients that year were based in India.

Seven Indian firms (Wednesday, Feb 25 2009), including fraud-hit Satyam, are among the top 10 companies which were issued maximum H1B visas in 2008, allowing professionals to work in the US for up to six years. These companies include IT firms Infosys, Wipro, fraud-hit Satyam, Tata Consultancy Services (TCS), Cognizant and IBM India, and engineering and construction major Larsen and Toubro, which altogether received 11,944 H1B work permits in 2008.

On April 1, 2009 the US Citizenship & Immigration Service (USCIS) began accepting applications for H-1B visas for skilled workers. The number of applications revealed US employers' current appetite for overseas workers. Because of the recession, the overall volume of applications is expected to be down from the previous two years, in which the offices were instantly flooded with applications from tech companies, outsourcing firms, school districts, and a variety of other employers. Still, it's widely believed that the 85,000 visas available under the cap will be used before the fiscal year begins on Oct. 1. That's because there is some pent-up demand from 2008 applicants who didn't receive visas, and because employers say there are positions they can't fill with U.S. labour, even as unemployment rises.

The Senators of Govt. of USA have planned to introduce legislation in the US Congress to change the programme, as they feel it has benefited the foreign workers. The stimulus bill, the American Recovery and Reinvestment Act, prevents the US companies receiving federal bailout money from hiring those on H1B visas. It is being argued that at a time when as many as 3.6 million Americans have lost their jobs in recession, the US companies are given preference to natives rather than hiring foreign workers

Four Indian IT outsourcers - Infosys Technologies, Wipro Technologies, Satyam Computer Services and Tata Consultancy Services (TCS) - dominate the list of companies who won H-1B visas in 2008 (Washington, March 4, 2009, IANS). The four together used more than 10,000 of the visas for skilled professional limited to 65,000 foreign-educated workers per year, according to the US Citizenship and Immigration Services (USCIS). Microsoft was the only US company with more than 1,000 H-1B visas, while Cognizant Technology Solutions and Cisco Systems made the top 10 list of H-1B visa users. Other US companies grabbing H-1B visas in 2008 were Google, Oracle, Yahoo, Motorola, IBM and Apple.

Leading the list of 2008 H-1B visas was Infosys Technologies with 4,559 visas. It was followed by Wipro Technologies with 2,678 H-1B visas, Satyam Computer Services with 1,917 H-1B visas and TCS with 1,539 H-1B visas. Microsoft clocked in with 1,307 H-1B visas in 2008. Cognizant Technology Solutions (467 visas) and Cisco Systems (422) were the only other US companies making the top 10 list of H-1B users. Other notable US technology firms using H-1B visas in 2008 included Google (207), Oracle (168), Yahoo (139), Motorola (112), IBM (104) and Apple (70).

American technology companies use the H-1B visas for a temporary work programme allowing American companies and universities to employ foreign guest workers who have the equivalent of a US bachelor's degree in a job category that is considered by the USCIS to be a "specialty occupation." The H-1B programme has been dogged by controversy over the last decade as Silicon Valley companies have repeatedly urged Congress to raise the cap on the number of visas allowed, currently set at 65,000 visas per fiscal year. Lawmakers have resisted, citing concerns over fraud in the H-1B programme.

In October 2008, a USCIS report was published where it was reported that the H-1B programme had a more than 20 percent violation rate. The fraud identified in the report included jobs not being located where employers claimed, H-1B visa holders not being paid the prevailing wage, forged documents, fraudulent degrees and "shell businesses."

Even before the report was issued, three senators, Chuck Grassley of Iowa, Dick Durbin of Illinois and Bernie Sanders of Vermont were seeking reform of the H-1B visa programme.

The Programmers Guild and Hire Americans First groups opposed H-1B visa programme, always cite the dominance of Indian firms to oppose it. They advocate that only the US business should be allowed to bring workers on H-1B visa.

Critics point out the difference between Indian companies and the US companies which use the visa. Most of the US companies will keep the H-1 workers and sponsor them for Permanent Residence. But the Indian companies bring them for only a brief period with low wages. They will get training in the offices of US clients, and go back after some time.

With the expertise gained from the US they can work for the US companies from India.

Meanwhile, companies and job seekers are again gearing up for applying for the H-1B visas, which will become available in financial year 2010, which begins in October. The

USCIS will receive application for the 65,000 visas on April 1, 2009. If they get more applications as in earlier years, winners will be selected in a lottery.

Every now and then, the H1B visa has been in the eye of a storm as anti-immigration lobbies get to work. In recent times, however, a lot of attention is being directed at L1 visas also, which are also used by Indian IT services providers. Now the question is what is H-1B and L1 visa? A brief description of these two visas is discussed below.

3.11: A Brief Idea of H-1B & L-1 Visa Statistics for the IT-Professionals for Migration to USA

For migration to the USA it is very essential for the IT professionals to get H-1B & L-1 visa from the US Govt. Basically the software firms who have their business in India as well as in USA apply for the bulk of H-1B and L-1 visa. As because 70-80 percent of IT migration takes place USA only ,so these visa statistics are very important.

3.11.1: The H-1B Visa

It is one of the most regulated immigration visas to the US. This is a temporary work visa. The Professionals are allowed to take wage employment for six years under this visa. If an H1B loses his/her job, he/she has to return to India immediately. If he/she changes job, an H1B transfer from the new employer is required. Any company that has more than 15 percent of its workforce on US soil on H1B visas is called an H1B Dependent company. (All large Indian software houses for instance would be H1B dependent).Previously applicants had to pay Rs.1, 06,000 towards fees. Now they will have to pay Rs.1, 98,000 as per the new decision taken by US Government (Jhunjunwala, The Statesman, 16th Sept, 2010) H1B employers have to show two things: An NDA (non- displacement attestation): That is, companies have to show that no American employee with similar skill sets was fired 90 days before or after an H1B with those skill sets was hired. A Recruitment Attestation: That is, show a "good faith" effort to find similar kind of employee locally. Some minimum wage requirements have to be met.

USA is going to give only 65000 H-1B visa for the skilled professionals in the year 2009.Due to financial recession and security purpose the US Govt. has taken this decision. It was 1, 20,000 in the year of 2006. At the end of 2006, more than 1 million skilled

professionals (engineers, scientists, doctors, researchers) and their families were in line for a yearly allotment of only 120,000 permanent resident visas.

Regarding the elimination of H-1B visa by United States in recent days the Foreign Secretary of Govt. of India Shiv Shankar Menon said in Washington (Times of India, Feb, 2010) that there is absolutely nothing India can do about it because it's the sovereign prerogative of the US.

The US move could adversely affect Indian IT professionals who have been the major beneficiaries of the programme.

While there were about 124,000 applications in 2008, the number this year i.e in 2010 may cross 150,000, Michael Phulwani, one of the first Indian origin immigration lawyers in the US, told IANS. Many will also be vying for the 20,000 H-1B visas meant for foreigners with US-earned masters' or higher degrees. "About 60-70 percent of all applications are expected to be on behalf of Indians," said Naresh Gehi, a New York lawyer, who is filing about 40 applications. The flow is unaffected by the recent downturn in the US economy or improved prospects in India, he believed.

Recently USCIS has issued a new rule that prohibits employers from filing more than one petition for a single employee in a fiscal year. Indian outsourcing companies attracted criticism recently when the federal government released data showing that they accounted for nearly 80 percent of the visa petitions approved last year for the top 10 participants in the H1B programme.

Infosys had 4,559 and Wipro 2,567 approved visa petitions in the programme in 2008-09, which was initially set up to allow companies in the US to import the best and brightest in technology, engineering, and other fields when such workers are in short supply in America. Many companies, from India and elsewhere, get around the H1B visa caps anyway by taking the L-1 visa route, meant for intra-company transfers.

With US immigration authorities getting enough applications for H-1B visas coveted by Indian IT professionals (April 09, 2008) within a week, a random lottery would pick the 65,000 lucky winners for 2009. The USCIS announced that it had received enough petitions for the 65,000 H-1B visas available for fiscal year 2009.

A recent study (NFAP Policy Brief, March 2010) was conducted by the National Foundation for American Policy (NFAP) shows that American businesses are finding difficulties to fill skilled positions even as H-1B visas which bring foreign professionals and are creating jobs in the US technology companies.

Two influential US senators, Democrat Dick Durbin and Republican Chuck Grassley, meanwhile, have questioned 25 top H1-B visa users, including nine Indian firms about their recruitment process for professional workers. According to their views the H-1B programme should not allowed to become a job-killer in America. USA needs to ensure that firms are not misusing these visas, causing American workers to be unfairly deprived of good high-skill jobs. The nine Indian companies to get the questionnaires by the US Senators were Infosys, Wipro, Satyam, Tata Consultancy Services, Cognizant Tech Solutions, Patni Computer Systems, I-Flex Solutions, Larson & Toubro Infotech Ltd and Mphasis Corporation (*LANS*).

Table 3.7: H1B visa scenario in USA (2001-2009)

H1B visas issued in 2001	163,600
H1B visa extensions in 2001 (not counted under cap)	342,000
H1B visas issued in 2002	79,100
H1B applications pending from 2002	18,000
H1B extensions issued in 2002 (not counted under cap)	215,000
H1B cap in 2002	195,000
H1B cap proposed in September 2003	65,000
H1B cap proposed in September 2006	65,000
H1B cap proposed in September 2007	65,000
H1B cap proposed in September 2008	65,000
H1B cap proposed in September 2009 (May)	45,000
(*Source: George F McClure of IEEE's Workforce Policy Committee, quoting US Bureau of Labour Statistics)	

(Source: US Department of Labour, 2009)

Most of the H-1B visas are used by the Indian IT professionals.

3.11.2: The L-1 Visa

The L-1 visa is an "intra-company transfer" visa which is used by the companies who are having their branches in USA. Like Infosys, this is an Indian Company but having branch in USA. When Infosys will transfer IT professionals to their USA branch temporarily, they will apply for L-1 visa. It's a temporary transfer though the visa can and is given for periods of up to 6 years. It requires that the employee going on an L1 must have worked for the company for at least one year. L-1 employees can be paid any agreed-upon salary,

without having to meet U.S. government standards. To be eligible for the L-1 category, the employee must be offered a position in the U.S. as either a "Manager," "Executive" (referred to as an L1A), or a person with "Specialized Knowledge" (referred to as an L1B). Can be used on multiple locations. So typically used for employees who are likely to move from project to project in the US. Based on some qualifications companies can be given Blanket L1s – which allows them to send any number of employees on transfer.

3.12: Recent Threats for the IT Professionals in the USA

Due to current economic recession in 2009, Indian IT companies are also affected immensely like the other sectors. US Government has proposed an amendment to the H-1B visa and L-1 visa to the senate for legislation. It will create a huge problem for the Indian IT professionals to get the work visa in the USA. Due to the amendment of this law the multinational software houses like TCS, Wipro, IBM etc having their offices in India and the USA cannot recruit fresh IT professionals if 50 percent of their employees are already having H-1B visa or L-1 visa. According to some sources TCS itself has near about 3500 employees who have H-1B & L-1 visa. Wipro is having near about 3000 employees who have these visas (Ananda Bazar Patrika, 4th May, 2009). The small IT companies will face a huge problem because they have to bear a huge CTC for the American IT professionals. Florida based IT Company Acclaris has expressed a deep concern regarding this law.

3.13: Indian IT Professionals versus Foreign IT Professionals

The US Govt. is forcing Indian as well as American software companies to hire more American professionals in their firms located in the USA. Mr. Chuck Grassley and Mr. Dick Durban, Senators, US Senate have proposed a bill which has changed the Indian IT industry's recruitment strategy (Venkatesh G., Business World, 11th May, 2009). The legislation of this bill seeks to bar Indian companies that have more than 50 percent of their work force on H-1B and L-1 visas. Durban-Grassley bill will require employers to make a 'good faith' effort to hire Americans first, employers will also have to show that the H-1B worker would not displace an American. This move comes against the backdrop of a US labour department report that altogether 6,00,000 jobs were lost in the month of January 2009. That is the biggest drop in the past three decades, taking the US unemployment rate to 16 percent. Already the USCIS has said that it would only accept H-1B visa applications within the terms and conditions imposed by the recently approved

Employed American workers Act. The proposed bill had become law in the month of May,2009.India’s largest software exporter ,TCS ,plans to double it foreign workforce from the current 10000 over the next five years, while Infosys and Wipro expect to see foreigners make up 10-15 percent of their total employee base in three to five years from about 5 percent at present. Only these numbers would still be minuscule compared to the 1, 00,000 plus employee base of the Big Three, or the fact that were each hiring 40,000-50,000 Indians annually when the market was doing better. Meanwhile, TCS has entered into an agreement with the state of Ohio, by which it will get an incentive package worth \$19 million (Rs 95 Crore) in return for creating local jobs. Similarly HCL Technologies has announced that it is setting up a 400 strong development centres in North Carolina, investing \$3.2 million over next five years.

Table 3.8: Foreign Nationals working in Indian IT Companies (2009)

Company	Foreign Nationals	Total Workforce
TCS	10,000	1,43,761
Infosys	4,718	1,04,850
Wipro	4,890	97,810

(Source: Companies balance sheets,2009)

If the H-1B visa and L-1 visa legislation bill is passed in US parliament, the ability of Indian companies to leverage their cost advantage will be challenged. Hiring more overseas employees would put more pressure on the IT companies, which earn more than 60 percent of their revenues from the US and are already bruised with clients who are demanding price cut in this recession. In the past three years (i.e.2006, 2007, 2008), the 65000 cap on H-1B visa quotas was snapped up within a few hours of the applications being allowed by the US Govt. According to the USCIS, only 45000 applications for H-1B visas have been filed by 2009. Indian IT companies have not aggressively applied for H-1B expecting a slowdown in outsourcing orders.

NASSCOM have expressed its deep concern over the proposed amendment to the H1B visa legislation taken by Obama Government and the President of NASSCOM Mr. Mittal said “This law is strictly against the fair competition. The amendment is likely to isolate and unfairly target Indian IT companies, restricting the level-playing field”(Times of India,Feb,2010). Contrary to popular belief that Indian IT firms take the majority of H-1B visas, only 11 percent of the total visas in 2008 were taken by IT sector. Previously the

salary of a mid level US programmer was \$60,000(Rs.30 Lakhs) per year in 2004. But today (2009) due to economic recession they are available at \$20,000. So the IT firms are recruiting US professionals rather than the Indian IT professionals. A team of six officials of NASSCOM recently visited the US to prevail upon them over the visa issue and also over the proposed 'Buy America' measure of the Obama administration. The delegation met Senator Chuck Grassley, belonging to Iowa, who is spearheading the H1B legislation. NASSCOM would be working with him to ensure that any fake use of the H1B visas are apprehended and will be stopped and ensure legitimate business users will not be affected.

3.14: Global Human Resource Mobility

One of the consequences of globalisation has been a shift in the global demand for labour which is bound to have a substantial effect on the HR planning of different organisations. In recent years, many richer economies have suffered declining rates of fertility and shifts in types of industry, creating new work opportunities. At the same time, development and democratisation in poorer economies have created a labour force more eager and able to migrate to take advantage of these opportunities. The result has been a significant expansion of global mobility of labour.

Governments in both origin and destination economies are formulating policies, independently, bilaterally and multilaterally, that respond to this shifting of global demand for labour. The introduction of the H-1B visas in the United States and 'green cards' in Germany are recent examples of destination countries opening the door to increasing numbers of skilled non-permanent immigrants. Several origin countries in Asia, including India and the Philippines, also actively seek labour markets for their workers overseas. At the multilateral level, the World Trade Organization's General Agreement on Trade in Services (GATS) makes provision under its 'Mode 4' for member countries to commit themselves to certain defined limits for the temporary inward mobility of service sector workers, although bilateral temporary labour schemes are a more common way in which such mobility is facilitated.

ILO carried out a research project titled "Skilled Labour Migration ('the Brain Drain') from Developing countries: Analysis of impact and policy issues" for the Department of International Development, UK, during 2001/02. The ILO research reviewed the experience of the USA and the UK, and also commissioned a series of studies in selected

source countries in different regions: Bulgaria, Argentina and Uruguay, Jamaica and the Caribbean, India, Philippines, South and Southern Africa and Sri Lanka. Some key features of ILO studies on skilled migration for India are shown in Table 3.9.

ILO Studies on Diverse Impacts of the Brain Drain

Table 3.9: Brain drain profile in India

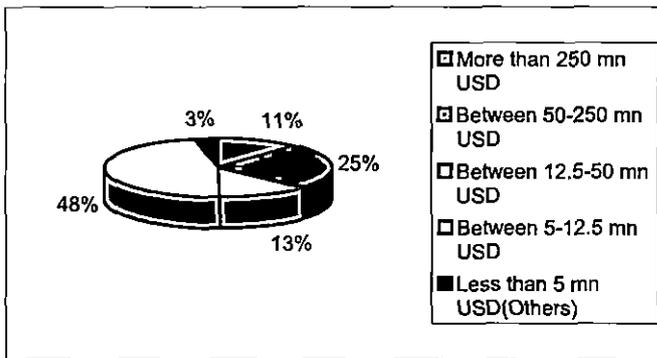
Features	India
Extent	High in absolute numbers but low in relation to national stock
Sectors	Scientists, IT professionals, health workers
Domestic supply response of human capital	High: large tertiary education infrastructure and output; Local demand for IT workers projected to exceed supply
Perceptions	Necessary aspect of globalisation; migrants eventually return.
Return	Reasonable levels; persons with experience and capital
Diaspora	Diaspora investment in Govt. bonds etc; high tech parks in Bangalore, Karnataka tap diaspora; Liberalisation policies not limited.

(Source: Khadria , 2002)

3.15: 'IT' Industry in India and Skilled Human Resource Mobility

The Indian IT/ITES industry's contribution to the country's GDP has been steadily increasing from a share of 1.2 percent in 1998 to 5.2 percent in 2007, it has contributed to foreign exchange reserves of the country by increasing exports by almost 36 percent and its direct employment as grown at a CAGR of 26 percent in the last decade, making it the largest employer in the organized private sector in the country. Export earnings in 2008 stood at approximately USD 40.0 billion with a growth of 36 percent. In addition, it also indicates that the IT/ITES industry has significantly contributed through socially relevant products/services and community initiatives in human resource development, education, employability, health, encouraging women empowerment and employment of differently abled and 'out-of-the-mainstream' candidates.

A turnover range of Indian IT/ITES industries in 2008-09 is shown below:



(Source: NASSCOM Annual Report, 2008)

Figure 3.4: Profile of respondent cos. in terms of turnover Range (in numbers) in 2007-08

Figure 3.4 shows that 11 percent of the Indian IT/ITES Companies have more than 250 million USD turnover in 2007-08. Around 25 percent of the Indian software companies have turnover between 50-250 million USD in 2007-08 and 48 percent companies have their turnover between 5-12.5 million USD. This turnover shows the employability of the IT professionals in this sector. The professionals are recruited by the IT companies and after having some experience the professionals either resign from the company and join foreign companies or getting H-1b or L-1 visa to shift to foreign companies.

3.16: Contribution of 'IT' Industries to the Indian Economy after Globalisation

The current and evolving role of IT/ITES industry in India's economy is well established. The sector is proving to be the major growth pole within the services sector, which in turn drives several economic indicators of growth in the country. A few key indicators of direct contribution are:

- Growing share of the country's GDP: The sector's contribution to the country's GDP has been steadily increasing from a share of 1.2 percent in 1998 to 5.2 percent in 2007.
- Boosting the foreign exchange reserve of the country: Export earnings in 2008 stood at approximately USD 40.0 billion with a growth of 36 percent
- Employment generation: Direct employment in the sector is expected to be 2.0 million by end of 2008.
- Additional employment generation: The indirect employment generated, at the rate of 4 additional jobs created in the economy for every 1 job created in the sector, is even more socially relevant as nearly 75 percent of the workforce employed in those additional jobs are SSC/HSC or less educated

- Driving growth of other sectors of the economy: Apart from contributing to the growing income of its direct stakeholders (promoters, shareholders and employees), the IT/ITES industry has had a multiplier effect on other sectors of the economy with an output multiplier of almost 2 through its non-wage operating expenses, capital expenditure and consumption spending by professionals
- Study show that USD 15.85 billion spent by the IT/ITES industry in the domestic economy in 2006 generates an additional output of USD 15.5 billion
- Encouraging balanced regional development: By gradually spreading their business operations to smaller Tier II/III cities, the IT sector (besides generating revenue and employment) is also assisting in improving the supply of talent pool and development of physical and social infrastructure, either directly by themselves or by spurring the Government to action

A study by NASSCOM (NASSCOM Annual Report, 2007) indicated that in 2006, out of the total revenue of 33.55 billion USD of the industry, 15.85 billion USD is spent in the domestic economy via non-wage operating expenses, capital expenditure and consumption spending by professionals. This spending, in turn, generates additional output of 15.5 billion USD via its direct and indirect backward linkages with other sectors and induced effect of wages and salaries. The sectors which are most impacted through this multiplier effect include housing/construction, transport services, communications, consumer durables, food items and clothing.

In the year 2008, for about 30 percent of companies worldwide which have reached Level 5 of Capability Maturity Model Integration (CMMI) are Indian IT/ITES firms. Nearly 75 percent of Fortune 500 and 50 percent of Global 2000 corporations source their technology related services from India with an increasing number of MNCs outlining their investment plans for setting up R&D operations in India.

The IT/ITES companies are providing high growth opportunities for the youth. The industry has created excellent employment and fast track growth opportunities for the younger section of the population and is likely to become one of the largest employers of a growing 'young population' of India. And globalisation has a great effect on the growth of IT sector, free trade among the countries and the migration (brain drain) of IT professionals from India to the developed countries.