CHAPTER – I
INTRODUCTION
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1.1: INTRODUCTION:

Mankind has entered the information age from an industrial age that prevailed till a few years ago. This sort of change is expected to have a profound impact on the way we live, earn money and deal with warfare's it would, therefore, be useful to examine the nature of information and the information technology that is at the root of future opportunities competition and challenges. Information has been there since the beginning. Information technology was also there. But it is higher generation computer and its wider applications, which has made information technology so profound and powerful in the contemporary society.

Revolution in technology has always played a key role in transformation of society. Its impacts are multidimensional. It is becoming increasingly clear that the growth of computing and communication technology is exceeding our understanding of its economic and social consequences. Various research studies revealed how information technology has affected our society. Futurology as focused its attention in portraying the type of society in which modern men has to live.

Information technology has engulfed almost all the institutions, human relations and organizational sectors of the society. It has come to affect primary institutions like the family and formal institutions like multinational companies all over the world. Information technology has not only affected the institutional network of society but also affected at micro levels. Social relationships are redefined in the context of new information technology that is overseen to us today. For ex. SMS, Internet, Multi Media Services etc. have opened up new vistas
and channels of relationships. For example, recently number of articles based on survey has revealed how SMS has exposed extra marital relationships resulting in divorce and litigation. On the other hand, it has changed the life styles of people in different ways. It has also become the part and parcel of daily life in sectors like factories, shipping, banking, business, education, entertainment, science and so on. One more implication of it is on work place and on the workers in the IT companies. More precisely IT has generated a unique kind of job opportunities. Many young graduates from engineering and such field are choosing their careers in IT. Some have engulfed information technology as their profession. This sort of impacts enables us to study the information technology profession in depth. The professions are related to IT are fast becoming main streams of vocational opportunities in India.

1.2: INDIAN SOCIETY: ITS SOCIO - ECONOMIC STRUCTURE.

The Indian society is not a uniform one. This is a natural corollary to the fact that diversity is a part of Indian way of life. From region to region, diversity in the social structure is prominently seen. The north Indian social traditions and customs are markedly different and so those of the eastern India from those of other parts of the country.

The diversity factor notwithstanding, there is a common thread running through the Indians. Unity in diversity is best seen in India in a maze of seemingly disparate people. One social unifier is the Indian system of caste-ism adhered to by all racial groups belonging to the Hindu religion fold. Lambasted by many as a retrogressive social tradition, this system has also given the Indians a sense of belongingness to a shared way of life. Though caste rigidity was prevalent in the olden times, now it has become flexible to a large extent. It is not an uncommon to come across families of so called incompatible castes entering into matrimonial alliance.
The gender inequality is a phenomenon causing concern in the Indian society. The Indian society is highly prejudiced against the female gender. Basically a male dominated society, decision making at family and political level is almost single handedly handled by the men. Customs such as Dowry are worsening the process of subjugating women in the society. Of late, with social awareness about women's vital role in the development of a community or the country, there has been a change in the perception of gender equations in favour of women. Education of women, giving the women a greater say in decision making in the family and the governance are emphasized. With the liberalization of economy women are in top marginal position on par with the best men.

In spite of significant leaps made by India in the economic front, poverty is still a dominant social reality. A majority of the population of India lives in utter poverty without access to health care, housing, drinking water and education. Major policy change has to be enforced to better the lives of these millions souls if India is to become a truly desirable place to live in. The new technologies are further enhancing the inequalities.

Education is still a privilege in this country of over one billion people. Providing Primary education has been the motto of the government. So far the government has not live up to its promises with the results that there are more illiterate people than functionally literate people in India. Lack of education is the primary obstacle to the nation's development. India should educate the masses if its hope of becoming the global knowledge superpower is to become a reality.

India has a rich cultural and artistic heritage. The fact that India was invaded and ruled by various kings down the ages is already reflected by its impact on India culture. The Gupta dynasty, the Mughal dynasty and many other dynasties influenced and contributed to the Indian culture. Social structure is a
The term social structure, used in a general sense, refers to entities or groups in definite relation to each other, to relatively enduring patterns of behaviour and relationship within social systems, or to social institutions and norms becoming embedded into social systems in such a way that they shape the behaviour of actors within those social systems.

The notion of social structure as relationships between different entities or groups or as enduring and relatively stable patterns of relationship emphasises the idea that society is grouped into structurally related groups or sets of roles, with different functions, meanings or purposes. One example of social structure is the idea of "social stratification," which refers to the idea that society is separated into different strata, according to social distinctions such as a race, class and gender. Social treatment of persons within various social structures can be understood as related to their placement within the various social strata.

The notion of structure as embedded institutions or norms that shape the actions of social agents is important, as structural determination may occur as the actions of people and organisations are guided partially by the underlying structures in the social system. This approach has been important in the academic literature with the rise of various forms of structuralism, and is important in the contemporary organisational context as organisation structure may determine an organisations flexibility, capacity to change and many other factors, and is therefore an important issue to management.

Social structure may be seen to underly important social systems including the economic system, legal system, political system, cultural system, and others. Family, religion, law, economy and class are all social structures. The social
system is the parent system of those various systems that are embedded in the social system.

1.3 CASTE AND OCCUPATION: EMERGING TRENDS

In India the relation between castes and occupation is very crucial. In terms of occupational mobility, Several authors and thinkers hold that earlier occupation was the basis of the caste system i.e., a higher caste people performed a higher occupation and lower caste people a lower occupation, it is argued by them that as there are various caste holding different position in the ritual purity scale, the various occupations which are associated with the castes are also ranked as high or low. The Brahmin followed the occupation of teachers, priests and kshatriyas the occupation of protection, state administration work, Vaishas were the trading people and Shudras were performed services. The fifth class preformed menial jobs.

The latest trends in occupational mobility i.e., change in rural India illustrate how caste is related to land owning groups mainly to the upper castes like Brahmins, Rajputs, Bhumihars, Nair’s, Reddys are forced to take up non-traditional occupations as they lost their land due to the abolition of the Zamindari, Jagirdari, system which prevailed. The non-traditional occupations depend on the resources, like skill and capital. While some of them selected the top occupations like the top administration, professions, entrepreneurship etc and experienced an upward mobility. The castes which used to cultivate lands as tenants, share - croppers and owner- cultivators like the Jats, Ahirs, Kurmis, and Ezhavs found a sort of reinforcement to their traditional occupations in the wake of Zamindari system being abolished. The green revolution bought some upward mobility to some castes and the new generation of caste has taken to modern education and modern occupations like IT professions. They could not compete with the upper castes and these castes demanded protection and reservations. Few continued their
traditional occupations. It is because of the reservation policy many scheduled caste and scheduled tribes are joining the white-collar class of occupation and higher positions in occupation there by experiencing upward mobility.

The Indian caste system is the traditional social system of India, based on heredity in which social classes are defined by a number of hierarchical endogamous groups. A caste is generally divided into exogamous groups based on the same gotras and defined by the mutual interaction among its members.

Castes are based on occupation. For example, goldsmiths, carpenters, and barbers each form separate sub-castes. Often, a sub-caste with a significant number of members will be divided into further sub castes. Varna, literally meaning "kind" or "type", is a term often used in connection with the caste system, with varnas often mistakenly referred to as "castes" in English. Classical Indian legal texts of the Dharmashastra most notably that by Manu identified four varnas in Indian society. These were, as mentioned earlier, Brahmin, Kshatriya, Vaishya, and Shudra, with the former untouchables (Dalit) being considered either a lower section of Shudra, or outside of the caste system altogether.

Theoretically, according to the Manusmriti, every caste belongs to one of the four varnas. However, the division of Indian society into four castes was a generalization that rarely held in practice. Consequently, there have been many disputes about the Varna of many castes, such as castes being considered Kshatriya by some scholars, while described as Shudra by others. While texts such as the Manusmriti attempted to rationalize ambiguous castes by placing them in varna-sankaras (i.e. mixed varna), the fact remains that Indian society was, and is, composed of numerous geographically diversified but endogamous groups. With many occupational groups practicing endogamy within a particular region, as well as numerous sub-divisions within the four main castes, a more complex system of sub castes and jatis becomes evident.
Unlike the Varna system of Brahmins, which requires spiritual purity in order to ascend, a jati is able to move up or down the social hierarchy based on the aspirations of its members. Marriages are usually arranged within one's own sub-caste; however, they may occur between two affiliated sub-castes, or two sub-castes that are in the same region, and are as such termed intercaste marriages. Over time, this grew more and more rigid, until every aspect was determined by birth, with various "justifications" as described below.

To simplify the perspective, often people use the classification based on four varnas, given in Manusmriti and other dharma-shastras: The Brahmins (Teachers, Scholars and Priests), The Kshatriyas (Kings and warriors), The Vaishyas (Traders and Landowners), Shudras (Agriculturists, Craftsmen, Service providers). There was another group, which was excluded from the main society, for various reasons, which was called Parjanya or Antyaja - these were the people called untouchables. The varnas (rather than Jatis), was used after the 1902 Census by the British, for consolidation of demographical data into manageable proportions. However no commonly agreed approach for classifying the castes into the four varnas exists, sometimes a caste may claim to be a Brahmin, but others may regard it to be a Vaishya.

A) Major Caste Groups

These are the major caste groups in India, listed in the order of population, based on 1891 census data. This article or section contains inappropriate citations. References cited may not support the claims of the text. Please improve the article or discuss the issue on the talk page.
Table 1.1

<table>
<thead>
<tr>
<th>PROFESSIONS</th>
<th>CASTE GROUPS</th>
<th>POPULATION %</th>
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</thead>
<tbody>
<tr>
<td>Cultivators</td>
<td>Kurmi, Kapu, Maali, Lodha</td>
<td>20%</td>
</tr>
<tr>
<td>Village Menials</td>
<td>Chamar, Dosadh, Domba</td>
<td>3%</td>
</tr>
<tr>
<td>Military</td>
<td>Bhavsar, Khatri, Jat, Maratha, Rajput, Raju, Naidu</td>
<td>12%</td>
</tr>
<tr>
<td>Artisans</td>
<td>Lohar, Sunar, Julaha</td>
<td>12%</td>
</tr>
<tr>
<td>Pastoral</td>
<td>Ahir, Gadaria, Dhangar</td>
<td>7%</td>
</tr>
<tr>
<td>Forest tribes</td>
<td>Santhal, Gond, Bhil</td>
<td>7%</td>
</tr>
<tr>
<td>Professionals</td>
<td>Nambudri, Bhat, Kayasth</td>
<td>6%</td>
</tr>
<tr>
<td>Services</td>
<td>Nai, Dhobi, Kandoi</td>
<td>6%</td>
</tr>
<tr>
<td>Laborers</td>
<td>Musahar, Bagdi, Bawari</td>
<td>3%</td>
</tr>
<tr>
<td>Fishers</td>
<td>Kahar, Mallah</td>
<td>3%</td>
</tr>
<tr>
<td>Other professionals</td>
<td>Vaidya, Mirasi, Bhand</td>
<td>2%</td>
</tr>
<tr>
<td>Vagrants</td>
<td>Waddar, Nat, Beldar</td>
<td>1%</td>
</tr>
<tr>
<td>Traders</td>
<td>Agrawal, Arora, Balija, Barnwal</td>
<td>5%</td>
</tr>
</tbody>
</table>

SOURCE:

THE MAJOR CASTE GROUPS IN INDIA (1891) POPULATION CENSUS

However, there has been strong criticism of the caste system existing in India. Some activists consider that the caste system is a form of racial discrimination. The participants of the United Nations Conference against Racism in Durban, South Africa in March 2001, condemned the discrimination due to the caste system, and stated that caste as a basis for the segregation and oppression of peoples in terms of their descent and occupation is a form of apartheid.

1.4 BEGINNING OF INFORMATION TECHNOLOGY IN INDIA.

The history of India's development in IT begins with the story of a national-turned-international enterprise. Various cities in the United States have
taken their turn as the heart of the computing industry as its constituent parts evolved: mainframe, mini computing, and finally the personal computer. After New York and Boston played host to the industry, Silicon Valley took over in the mid-1980s. As the IT industry expanded, it followed in the footsteps of the manufacturing industry and began to look for low-cost labor overseas. The two branches of computing relevant to this discussion are hardware and software, both of which American companies looked to produce offshore. Hardware is defined as "the mechanical, magnetic, electronic, and electrical devices which make up a computer, while software is the instructions, programs, or suite of programs which are used to direct the operations of a computer or other hardware."4 While producing hardware in the 1980s was part of the manufacturing sector, the high technology jobs of the 1990s and present require a sophisticated enough skill set to write software and maintain computer systems. Only a few select countries have a ready supply of workers who are both technically trained and proficient in English to accept the opportunity American companies’ offer. For such reasons, China, Russia, and Vietnam are also prime locations; India, however, by far has become the leader of what has come to be known as the “outsourcing” revolution, as it captures a commanding 70% of the total spending on outsourcing.

Outsourcing has been defined by two types of activities: Firstly foreign companies launching “liaison, project, or branch” offices in India that retain the name of the founding corporation; and secondly foreign companies contracting out stages of their production processes to already-formed Indian companies as “a joint venture or wholly-owned subsidiary.

It is important to distinguish between these two types of outsourcing because the requirements that foreign companies pursuing offices in India must meet differ significantly from those placed upon multinational partnership firms. These types of offices are limited in scope and Indian law specifically prohibits branch offices of foreign companies from carrying out manufacturing activities on
its own. Rather, it encourages the subcontracting of these manufacturing tasks to established Indian manufacturers.

Foreign companies looking to partner with existing Indian companies have several advantages over those wanting to launch an entirely new company in India. Foreign investors can utilize the contacts, financial resources, and pre-established marketing strategies of the Indian company. Companies achieve this type of strategic alliance by subcontracting parts of the production process to Indian companies. For example, several American high technology companies have moved software development and support operations to companies in India. There is a significant cost advantage in doing so, as hiring a programmer in Silicon Valley costs approximately $78,000 annually including benefits while an Indian programmer costs only $8,000.7

Setting aside government promotion for a moment, two key factors have facilitated these forms of outsourcing. The first is the low cost of skilled labor in India. For an hour's worth of project work, American IT professionals typically charge between $80-$120, whereas Indian software engineers can be paid $40 for the same work due to currency exchange rates and the customary absence of employee benefits to Indian workers.8 Because of the recent downturn in the American economy, the Bureau of Labor Statistics estimates that 500,000 information technology professionals have lost their jobs in the United States since 2001, a figure expected to reach one million by the end of 2004.9 American companies are looking to cheaper sources for production, and the Indian IT industry has filled this need.

This transnational work is made possible by technology. High-speed data connections and software tools have allowed for great distances to be bridged, making possible the collaboration between geographically disparate groups. This technology also changed the structure of the production process; rather than a few...
large vertically-integrated corporations in which hardware and software are produced together, a “more fragmented industrial structure” now allows for production processes to be performed in different locations. Global Communication has thereby assisted the growth of the IT industry.

To show how the government has in fact encouraged the IT industry in India, we can examine the counterexample of China. In quantitative measures, China exceeds India in geographic area, population, gross national product, and measures of well-being such as life expectancy. China has gleaned more foreign investment and holds a larger share of the world’s exports. This domination is not replicated in the IT industry, though, as Indian software exports far exceed those of China. In mid-2002, the ratio of India’s exports to China’s was 13:1.11 Impressed by India’s business models in this industry, China has sent delegations to India both for purposes of cooperation and reconnaissance. While Indian officials say they learn from the Chinese as well, the air between the two nations is rank with competition and secrecy.12

Since 1984 under the rule of Prime Minister Rajiv Gandhi, India has been pursuing liberalization policies that have helped the IT industry develop. On the other hand, the People’s Republic of China provided little state support for this endeavor until the late 1990s.13 Now lagging behind, China is trying to catch up by replicating India’s model. Thus, we see that India’s proactive government played an instrumental role in encouraging the IT industry.

The National Association of Software and Service Companies, known as NASSCOM, provide figures about the growth of the IT industry in India. In 1980, the gross Indian software export earnings were only US $4 million, but by 1995, that number had grown to US $480.9 million.14 Between 1997 and 2002, the IT market in India grew 229%.15 NASSCOM reports that the 2000-2001 export industry totaled $4.2 billion and by the end of 2002, that number was likely to
grow to $8.5 billion. The components of the IT market included in the data are hardware, peripherals, networking, domestic and exports markets for software and services, and IT enabled services. The software export industry accounted for 2.4% of India's GDP and 20.4% of exports in 2002-2003.

As the statistics tell us, the magnitude of the Indian IT industry has increased significantly in the last thirty years. Though part of this growth can be attributed to venture capitalists and aggressive individual investors, government policies have clearly expedited the process. Specifically, policies on three different levels have served as an overall beneficial strategy. The rest of this paper will discuss these three initiatives: the Ministry of Information and Communication Technology, software technology parks, and policies that mobilize the Indian Diaspora.

As is well known by now, India's IT sectors took off in the early 1980's with the establishment of offshore development centers. Relatively common English speaking engineering and technical graduates were employed at centers in Bangalore and Chennai. Then Hyderabad and now in the suburbs of New Delhi. Ever since the liberalization of the Indian economy in the early 1991 the Indian government has relentlessly promoted the IT sector as the harbinger of nation's economic growth. Even though the country possesses only 3.7 million computers, it houses large number of software professionals.

India is being emerging as a global player in the field of Information Technology (IT) as one of the largest generators and exporters of software in the world. The Indian IT industry revenue in the software sector has grown more than ten fold from US $ 50 million in 1988-99 to US $ 5.7 billion in 1999-2000. As a result, India has been acknowledged all over the world as an important base for the growth and development of the IT industry.
1.5 DEVELOPMENT OF INFORMATION TECHNOLOGY IN INDIA.

The Information Technology (IT) sector is amongst the fastest growing in the country. IT professionals work in all major markets around the world. Indian technology products and solutions are accepted globally. The first year of the new millennium has been a year of turbulence, tragedy, terrorism and slow-down in the world economy. The Indian IT software and services industry has weathered this storm well. It is indeed creditable that the IT software and services industry in India has reasonably continued its robust growth of about 28 per cent during the year 2001-02.

The software industry has emerged as one of the fastest growing sectors in the economy with a compound annual growth rate (CAGR) exceeding 50 per cent over the last five years and with turnover of US$ 10.25 billion and exports of US$ 7.8 billion during 2001-02. Software exports have registered a CAGR of about 60 per cent. The IT software and services industry accounted for about 2% of India’s GDP during 2001-02 and 18 per cent of total exports. It is expected that by the year 2008, IT software and services industry will account for 7 per cent of India’s GDP and 35 per cent of total exports.

The segments that are likely to see tremendous growth in India include back office operations, remote education, data search, and market research and customer interaction services. India due to its geo-strategic location is in a position to offer 24x7 service and reduction in turnaround times by leveraging time zone differences. The Indian government is also offering special incentives for call centers and medical transcription facilities that are being set up in India. As per Nasscom-McKinsey report, The IT industry with current capabilities can attain revenues of US $17 billion by 2008 thereby capturing 12% of the market.

The Nasscom McKinsey Report 2002, released in June 2002, has reiterated that despite recent slowdown, the Indian IT services (ITS) and IT enabled services (ITES) industry is poised to meet its long-term exports potential of US$ 57 billion. The IT enabled services sector has witnessed explosive growth the last two years.
As a result, IT enabled services exports is likely to reach US$ 21-24 billion by 2008. A large number of Indian software companies have acquired international quality certification. Out of top 400 companies, more than 250 have already acquired ISO 9000 certification.

The growth of the Indian IT sector has been aided by the Indian Government's policy of establishing specialist Software Technology Parks in about 18 Indian cities. Mumbai, Bangalore, Delhi and its environs, Hyderabad and Chennai are all now important IT centers, with both indigenous Indian IT companies, such as Infosys, Satyam and Wipro Technologies, and Indian arms of multinational IT companies.
Karnataka is in the forefront of Information Technology and is called the Silicon State of India. In addition, the state capital Bangalore has shown tremendous growth in the IT Sector and is the IT Capital of India. Karnataka is the first state to announce IT Policy in the year 1997. This Policy has acted as an important catalyst for the growth of IT Industry in the State. The industry however is growing in leaps and bounds. The type and nature of business are rapidly expanding. Karnataka is becoming the centre for more and more companies in sophisticated IT Products and Services. The value addition from IT Professionals of Bangalore is getting at the higher end of the spectrum. Thanks to Moore's Law, the cost of technology is dropping and technology is advancing exponentially. Thus, the prices of the new products are dropping rapidly and the same products are becoming more intelligent. The IT usage is becoming more widespread and relevant. It is necessary to re-focus on the IT Policy and define it in a way that is most suited for the present.

Karnataka has a pre-eminent position in the IT Industry not only in India, but also in the World Map. In-fact, Bangalore was rated as one of the "top 10 Hot Spots" by the News Week magazine. It was also considered as one of the "top 10 Tech Cities" in a survey conducted by Business Week. The German publication Diezeit called Bangalore as "City of Future".

Karnataka boasts of a stable democratic Government, peaceful law and order, welcoming locals, a vast pool of IT Professionals, a large array of higher educational institutions, diversity of culture, pleasant climate, excellent labour relations and premier research institutions. Almost 100 multi-national companies from almost all parts of the world – USA, UK, Japan, Germany, France, Singapore, Malaysia, China, Korea, Belgium, Ireland, etc., are located here. Bangalore has been home for Indian multi-national companies like Infosys Technologies, Wipro, Micro land, etc.
Karnataka has the thriving presence of 9 of the 19 CMUSEI Level 5 companies. Several companies located in Karnataka are conducting high end technology research and are registering patents all over the world. The Government of Karnataka is committed to maintaining its pre-eminent position in the field of Information Technology. An IT company could be any company in the sectors of computing devices, network controller cards memories, the storage units, printers and output devices, networking products, software, power supplies to computer systems, networking / cabling and related accessories, consumables, electronic components, telecommunication equipments, etc.

The IT Sector provides vast employment opportunities. Presently, 280,000 IT Professionals are employed all over India. In Karnataka alone the estimated number of professionals is about 75,000. It is estimated that in the year 2010, the potential for employment in Karnataka in the IT Sector alone will reach 10 lakhs. The employment is likely to be generated in sectors of Information Technology that include the hardware development, software services, network services as well as several sectors in the IT Enabled Services. The examples of the IT Enabled services are customer interaction, financial and accounting services, call centers, medical transcription, engineering and design data management, remote education, net work consulting, web-site services as well as market research. It is proposed to meet the demand for professionals by organizing Human Resource Development schemes. These schemes will be implemented to train people at different levels like unemployed graduates, engineering college students, college students, polytechnics, ITI as well as schools. The Bangalore City is well known for its standard of Living. Climate is very pleasant. All the basic amenities are there for quality life. Biggest advantage is it's proximity to Bangalore, the silicon valley of Asia.

There are several reasons that contribute for the highly skilled work force in India. The education system has traditionally placed great emphasis on mathematics and science, resulting in large pool of science and engineering
graduates. Mastery over quantitative concepts coupled with English proficiency has resulted in a skill set that is ideally suited for the IT industry. Indian universities are pumping out 12500 engineering graduates every year. However even with these large figures McKinsey & Co and NASSCOM predicts a shortfall of IT workers in India. This is due to the fact that the country faces a severe brain drain with most of its IT skilled workers opting to move overseas for better pay & living conditions.

Even though the salary of IT skilled workers has increased over 23% in the last three years in India, there is a crave to earn more and to work in more intellectually stimulating work places abroad. Experienced IT workers earn an average of US $ 20,000 which is approximately one fourth of their counterparts in the US. Nearly 70% of India's technology industry is concentrated in software services sector. India's abundant skilled manpower is drawing corporate hubs to back end their operations in India.

(SOURCE; NASSCOM REPORT GOVT OF INDIA.)
a. Growth of the Hardware Sector

Karnataka has traditionally been in the forefront of Electronics and Information Technology industry with more than 20% of national production originating from the state. As far as the IT Hardware Industry is concerned, again, Karnataka has ranked first in the country contributing 32.20% of the national IT hardware production of US$ 1 billion during 1995-96.

Karnataka’s (and India’s) strength in hardware is in design and integration of computers rather than manufacture of components. Since the import duty on hardware components is relatively high, most big firms have formed strategic alliances with international companies like Hewlett-Packard and Acer. However, the LAN and the peripheral markets are growing by leaps and bounds and serve as good investment areas for companies looking at investing in overseas IT manufacturing. Computer chip manufacturing is totally absent in Karnataka. By the year 2002, Bangalore carved a niche for itself in IC design with 18 firms specializing in VLS. Some of the biggest PC and hardware vendors like Digital-Compaq, and HP have set-up manufacturing facilities and trading offices in Bangalore.

In 2002-2003, the Electronic Hardware Technology Park (EHTP) companies showed an excellent growth in the over all hardware exports, achieving Rs. 1404 crores, with the growth rate of 67% compared to the previous year. The hardware sector growth occurred in the areas of healthcare, consumer electronics and other office automation products as well as in the automobiles sector. Below are graphs showing the exports from EHTP units over the last few years and the EHTP exports in different segments in the hardware sector during 2002-03.

1.7 DISCOURSES ON SOCIOLOGY OF PROFESSION AND LITERATURE REVIEW.

Professions have been prominent in the analysis of social theorists but it is only recently that “sociology of profession” has emerged as distinct sub-field.
There are three major approaches that have been highlighted in this area. The first school of thought is led by Evert C. Hughes at University of Chicago. He viewed occupation as “role performance,” that must be constantly re-examined because of the changing situational nature of social interaction. The exponents of second major approach are led by Ivy League School or by the structuralists or by the occupational sociology group. They have viewed professions as essentially stable institutions that reflect values and goals of the community. The third approach, the social class approach believe that the contradictions or material dialectics will result into certain occupations, that is, class formation of certain occupations as a consequence of change in the capitalist mode of production.

The sociology of professions is based on three main contributions, those of Weber, Durkheim, and Parsons. Weber stressed the importance of professions in modern western society, and he sees in the process of professionalisation the transition form of a traditional social order to a social order where everyone’s status depends on the tasks he performs and where these are allocated according to rational criteria of ability and specialization. The profession is a ‘vocation’. It is not inherited like an ascribed status, but chosen and assumed like a task. Durkheim searched for a legitimate authority able to appease the conflicts of interest which tear apart industrial societies and to re-establish a minimum of cohesion among their members. He believed it would be found in the professional associations or the corporative associations (craft guilds or trade unions), which he does not always clearly distinguish. Each profession is ruled by a special set of rules which develops a discipline among its members and detaches them from individualist egoism.

Parsons enlarged and systemized Weber’s and Durkheim’s analyses from his paradigm for the therapeutic relation. The term profession originally denoted a limited number of vocations which were the only occupations in pre industrial Europe that enabled people with no unearned income to make a living without...
engaging in commerce or manual work. Law, medicine and divinity constituted the three classical professions, but officers in the army and navy are also included in the ranks of professions.

The changes associated with industrialization brought major changes in the structure of these older professions and also resulted in the rapid growth of new occupational groups, many of which have subsequently claimed professional status. These changes within in the occupational structure have been reflected in the sociological literature in the attempt to define the distinguish traits or characteristics of modern professions. In their classic struggle The Professions, (1933) Carr - Saunders and Wilson argued that the typical profession exhibits a complex of characteristics and since then numerous sociologists have attempted to define this set of characteristics in terms of which, it was held, professional occupations could be distinguished from non-professionals ones.

The rise of modern professions in India is closely linked with the administrative, judicial and educational policies of the colonial administration in India. The first phase of colonial rule (from 1770 to 1830 A.D.) was the period of oriental domination among the policy makers of the East India Company in fields of education, medicine and law. During this period, the administration took the help of Hindu Pandits and Muslim Ulamas on legal matters and made arrangements for their training, encouraged education through Sanskrit Patashalas and Persian and Arabic Madarasas, and arranged for training in Ayurvedic and Unani medicines (Misra 1961; 162-210). In spite of prejudice against the capacity of Indians, Cornwallis laid the foundation of the modern civil service and judiciary in India around 1970. Much earlier than England, the state in India accepted the responsibility of promoting education and opened oriental colleges at Calcutta (1781) and Banaras (1791). The Hindu College at Calcutta was established in 1815 with facilities for education in English literature and language. It helped in the spread of liberal social and political ideas. It encouraged linkages and
professional organisations, thereby generating a cosmopolitan way of life. The increase in the number of professionals led to the rise of an educated, urban middle class in India. A few works throw light on the historical, statistical and organizational status of professions with particular reference to civil, service (Trevelyan 1966; O'Malley 1931), army (Broome -1850; Wilson 1882) medicine (Royle 183.7, Wise 1855, 1967; Crawford 1913; Herni 1923) and teaching (Adam 1935). During period, law and journalism started developing as free professions whereas medicine, civil service, engineering, teaching, nursing and army developed as salaried professions. The role of the Christian energy was added to the existing Hindu priests and Muslim Ulemas. The East India Company, from the very beginning, tried to develop a regular, modern and professional army in which the officers were British all the soldiers were Indians. Till 1857 there were three different armies in the Bengal, Madras and Bombay Presidencies. After the ‘Mutiny’, they were merged into one Indian army.

The question of regular training in medicine and nursing arose out of civil surgeon’s military requirement. In the beginning, the civil surgeons, military and civil doctors were British. The first civil hospital on English lines was built in 1792 in Calcutta. The records that indicate that prior to 1807, there were about 50 Indian allopathic doctors (Leslie 1973). In 1882, the first medical school was opened in Calcutta and its courses consisted of both allopathic and ayurvedic medicines. The next school was opened in Madras in 1835. By this time, there was a shift in the British education policy with emphasis on English education and allopathic medicine. Under the influence of the new policy, the Calcutta school was converted into an allopathic medical college followed by the opening of medical colleges at Bombay (1845), Hyderabad (1346) and Indore (1848). In 1857 these colleges were affiliated to the Calcutta, Madras and Bombay universities. There were two types of courses. viz., Licentiate in Medicine and
Surgery and Bachelor of Medicine and Surgery. The minimum educational requirements for admission were Matriculate and Intermediate respectively.

Under the existing pattern of training and recruitment policy, medicine could not develop a distinct profession in India. Since it did not have its own organization to make rules a it lacked 'Work. Autonomy' an important attribute of a profession. As regards training in law and judiciary, for a long time, the British Government followed a dual policy. The Supreme Court set up by Warren Hastings in 1773 at Calcutta was based on English laws. At the same time there existed the pre-British method of criminal and civil justice as practiced during the Mughal period and continued during the reign of the Nawabs of Bengal. The British followed the Hindu Muslim laws and the English procedures. In the growth of the profession of law in India the Judicial Code of 1781, the Regulation Act of 1773, Regulation V II of 1793, Regulation XVII of 1814, Regulation XI of 1826 and the educational policy of 1835 have played important roles. As per procedure of the Regulation Act of 1773, the plaintiffs and defendants were entitled to plead their cases. Sir Elizah Impey, the first Chief Justice of the Calcutta Supreme Court (1773), laid the foundation for the training of Vakils and practice for their appearance in district courts. He insisted on certain judicial procedures and techniques which were beyond the grasp of the common people. Therefore, Vakils were required to have a mastery of the Acts and Regulations of the Company, procedures and techniques of Courts and knowledge of Persian, Muslim and Hindu Laws. Till 1826, the products of Calcutta and Banaras College were preferred to practice as Vakils but the regulation XI of 1826 did away with this preference and demanded only a knowledge of Persian language, Hindu and Muslim Law and the regulations of the British government on a prescribed certificate of any school in this regard. Till 1835, the position of Vakils was much inferior, to Hindu Pandits and Muslim Quazis in district courts (Misra 1961; pp. 151,175). For the first time in 1835, the study of law was accepted as a separate
faculty. A professorship in law in the Hindu College, Calcutta was created in 1842 and the first appointment was made in 1847. In 1855, two additional professorships in law were sanctioned by the Madras and Bombay Colleges. It can safely be concluded that the traditional division of labour based on castes received a new impetus with the introduction of the British rule.

The "protected states" continued to be ruled by Kshatriya princes; business, trade and commerce remained in the hands of the Vaishyas and the land remained under the possession of the traditionally dominant castes in different regions of the country. In the same way, castes traditionally engaged in education, law and medicine (mainly Brahmins and in some parts Kayasthas) continued to dominate in fields of emerging professions in the early period of the British administration.

Engineering as a profession developed as a part of the Indian army. The first survey school at Guindy (Madras) was opened in 1794. The school was reorganized in 1842. It was denominated as the Civil Engineering College in 1859. In 1861 it was affiliated to the Madras University. The first bachelor degree was awarded in 1864. The Thomson College of Engineering was started at Roorkee in 1847, with the objective of supplying civil engineers and subordinates for the Ganga Canal Project. In Poona in, 1854 an engineering school was started which was converted into the Poona Civil engineering College in 1864. It was affiliated to the Bombay University in 1866. The Calcutta College of Civil Engineering was established in 1856. In the 19th century the major emphasis was on civil engineering and for the first time students were admitted to the mechanical engineering courses at Poona in 1914.

Nursing as a profession emerged in India in 1864 as part of the military hospital but there was no arrangement for formal training. The first diploma in midwifery was started in 1854 in Madras and provision for training to six nurses was made in 1871. (A.M.R. Report: 4, 1966, Wilkinson 1958).
Of late, questions have been raised regarding the rise of modern professions in India and their relationship with colonial administration, English education and the social structure. A group of authors believes that modern professions in India emerged out of the administrative and military requirements and the deliberate introduction of western English education (Misra 1961; Dubey 1968, 19.12, 1975; Kochanek 1974; Dobbin 1972).

This point has been focused by several reviewers of my book on mobility. Among the Professions (Dubey 1975). One of the reviewers remarks, "Prof. Dubey draws a distinction between the Western industrial societies (West Europe and U.S.A.) and developing traditional ones (like India). Whereas in the former group, mobility and migration are products of industrialization, in the case of the latter social mobility is more a result of modern University education and the British administration. This is no doubt, is true. But, in India industrialization, whose tempo quickened in the last two decades, has also begun influencing social mobility" (M.C.S. The Hindu, Feb. 10, 1976), Several other studies have been raised in another review: "Dubey repeatedly echoes B.B. Misra's assertion that the professional classes in India arose more as a remit of the new educational opportunities rather than from any fundamental changes in economic organisation (T.N. Madan, The Indian Express, Jan. 4, 1976). Several other studies have examined the relationship between professionalisation, modern education, business and politics. Modern India is more a creation of the intellectual and politico-administrative middle, class than of the bourgeoisie. This has given rise to a model or development that is different fronts both the liberal capitalist and the Marxist paradigms of development …… This has further reinforced the traditional dominance of the literati from which the (Kochanek 1974). In the course of the study of urban leadership In Bombay almost similar conclusions, regarding the role of education have been derived by Dobbin. The British introduced a new class of intelligentsia. The idea was to produce gentlemen appreciative of the new life.
The British were desirous of seeing the rich Shetias go in for the education but the later took hardly any interest in it. It was the poor members of the upper castes, notably Brahmans who took advantage of the new opportunity and additionally expected government to provide jobs for them (Dobbin 1972).

The introduction of the British administration, English education, land settlement and the growth of commerce could only marginally alter the position of castes, village, communities, agrarian relationship and the joint family system were the backbone of the Indian social structure. The castes and communities, with minor changes here and there, continued to dominate in intellectual, political, agrarian and commercial fields, as they used to dominate in the pre-British period. The Muslim rule in India could affect only the super-structure, More or less, the same was the case with the British administration. Its impact was felt on the new social formations-such as the emergence of new classes of landlords, trades and partners in agency houses. This physical mobility was accelerated by the administrative unification and the growth of new administrative centers. The Khatris, Banias Agrawals and Marwaris-traditional commercial castes-shifted their business from the old centers of power and commerce (Delhi, Agra, Lucknow, Murshidabad) to Calcutta and other emerging commercial administrative and military centers. The same thing happened in western India where the traditional business communities, the Parsis Bohras, Khojas, Shetias, Shethas and Shehs started concentrating in Bombay and Ahmedabad. Madras developed as the center of trading communities in the south. It can safely be concluded that the traditional division of labour based on castes received a new impetus with the introduction of the British rule. The real political power, economic resources and technology were in the hands of the Englishmen. They were interested in creating a class of dependant political allies among the autonomous regional rules, which was finalized either through subordinate alliances as happened in the case of the Gorkhas in Nepal or by liquidation of the central power as happened in the case of
the Peshwas (Poona), the Sikhs (Lahore) and the Nawab of Oudh (Lucknow). The subordinates of the central authority such as Scindia, Holkar, Bhonsle and Gaikwar of the Maratha States, Patiala. Sind and Nawab of the Sikh States and the Taluqedars of Oudh were assured patronage by the new rulers. The new class of princes (numbering around 600 after 1857) depended for protection, training of armies and supply of arms to the British power. This policy produced a subordinate and dependent power and evolved a mechanism of indirect rule in the Indian subcontinent.

After the award of the Diwani rights in 1765 to the East India Company by Shah Alam, the Mughal emperor, and later on, the expansion of the Company's territory, another important problem was the regular collection of revenue, the British administration utilised the services of the existing intermediate class of the village landlords, Jagirdars, Taluqedars and the respectable persons of the dominant landed upper castes, viz., Rajput, Bhumidar, Brahman and Muslim in north India; Brahman, Vaisya and Kayastha in Bengal; Tuluslim, Khatri and Jat in Punjab; Brahman, Vellala and Mudaliar in Tamiinadu, Reddi and Kamma in Andhra and Maratha in Bombay. These steps strengthened the political and economic power of Indian feudalism. By and large, the relationships between castes and royal families (mostly Rajputs and in some areas Muslims), caste and the ownership of land (Generally Rajput, B.humidar, Brahman, Muslim and peasant communities-such as Jat, Reddi, Kamma and Maratha) remained undisturbed after the introduction of the colonial rule. The wealth of the princes and landlords was not invested in industry and new enterprises Land remained as the major source of production and power. During this period effective lineage was developed between Indian feudalism and the alien colonial rule. Two leading Indian classes, viz., the princes and landlords, were not interested in the new educational and professional opportunities.
The next requirement of the colonial system was the supply of goods to the army and administration, distribution of British products in the Indian market and supply of the Indian manufactured commodities of the East India Company for the purpose of export. These commercial activities were undertaken by the traditional trading communities. The craftsmen and artisans were the same group of people living at the level of subsistence without any change in their economic and social status. Peasants, sharecroppers and tenants were the same group of people suffering from poverty and exploitation. The socio-economic status of the vast majority of the similar castes, agricultural laborers and tribes continued to be affected by misery, deprivation and poverty.

Naturally, in the early phase of the British administration a new class of white collars (clerks) and professionals (teachers, physicians, lawyers, jurists, nurses, engineers, authors, journalists) emerged under the impact of the new administration and western English education. As regards the formation of class structure, there were two opposite effects of the British administration. Through the patronage offered to the princes who were favorably disposed to the new regime and by creation of a class of landlords, the feudal forces which were expected to decline received a new lease of life. This newly patronised class with its feudal orientation was opposed to social reform, modern education and liberalism and was entrenched in medieval ideology and outlook. The new class of traders, particularly Shetia, Khoja and Bania in Bombay Presidency, Bania, Gupta, Jain, Agrawal and Khatri in Punjab, Rajasthan & V.P. Marwaris in V.P. Bihar and Calcutta and in other administrative centers did not take sufficient interest in the new educational and administrative opportunities available at the time. The professions which emerged in the first phase of the British administration (1800-1862) were dominated by Brahmins and Kayasthas-traditionally engaged in teaching, medicine and judiciary. This practice continued throughout the 19th century.
The background of the new economic and administrative elite may easily be explained in terms of their traditional family and caste occupations. At the initial phase of the British administration, the Muslims lost their political power and privileges; miniscule wise the traditionally privileged groups shared the maximum benefits even in the changed administrative set-up. The early ideologists and later on, even sociologists have tend to interpret caste system in terms of 'purity' and 'pollution'. In such a framework, an ideal type has been developed which depicts the Brahmans as the symbol of purity and they are supposed to preserve it by seclusion and aloofness from others. The notion of purity pollution mainly belongs to the domain of rituals. As regards the secular sources of earning livelihood and adopting occupation, Brahmans were never confined only to rituals and priestly occupations. This was evident in the Muslim rule and in early part of the British administration. The Brahmans had no hesitation in being appointed as clerks, civil servants, soldiers, teachers, jurists and doctors. The figures of the Bengal army at the time of 1857 indicate that the Brahmans, as a caste, were the largest single group in the army. After the introduction of the University education in 1857 in Calcutta Bombay, and Madras, Brahmans and Kayasthas were the first to utilise the new educational opportunities.

Starting from 1770 to 1357, the British power was being challenged by indigenous rulers and, therefore, the most trusted allies of new rulers were landlords. During this period, some Indians were recruited as civil servants and jurists and some of them joined the professions of law and medicine, but their number was nominal. It cannot be regarded as professionalisation but only as the emergence of stray professionals. The real impetus came from the opening of universities in Calcutta, Bombay and Madras (1857) Allahabad and Punjab (1887) and the opening of High courts at Madras, Bombay and Calcutta (1862). By 1862, there was no Indian Barrister in Calcutta, Madras and Bombay and even the number of Indian Vakils and advocates could be counted on fingers.
Gradually, Indian society moved away from the domination of aristocracy to the rising position of professions. In 1851, the British India Association was formed which was dominated by Rajas and landlords. The Indian Councils Act of 1862 favoured landlords who were overwhelmingly dominant in the Council till 1892. The members of the British India Association were mostly nominated to the Council during this period. The Indian Association (1876) may be regarded as the predecessor of the Indian National Congress (1885). Both were dominated by professionals from the very beginning. The Indian Councils Act of 1892 tilted the balance in favour of the professional class. Out of twenty seats, ten were allotted to officials, and seven were to be nominated numbers representing trade, industry, and local bodies. Out of the remaining three seats, only one was for the landed aristocracy. Generally, lawyers were nominated to the reconstituted Council. By the end of the 19th century, a real professional culture merged and there was a thin layer of the members of professions spread all over the country. By this time, they emerged as representatives of Indian public opinion. They were liberal in outlook and articulate in expression. An analysis of the background of the public men of the 19th and early 20th centuries will reveal that Ram Mohan Roy was a clerk, Sir Sayad Ahmad Khan was a Civil servant, Vidya Sagar, Aurobindo, Tilak and Gokhale were teachers, Ranande was a jurist, Phiroz Shah Mehta, Madan Mohan Malaviya, Motilal Nehru, Tej Bahadur Sapru, Mahatma Gandhi, Jawaharlal Nehru, Vallabh Bhai Patel, Rajendra, Prasad, Rajagopalachari and M.A. Jinnah were lawyers and Dr. Ansari, Haquim Ajmal Khan, B.C. Roy and Khan Sahab (brother of Khan Abdul Gaffar Khan) were men of medicine.

There was a basic difference between the traditional professions and the modern professions. The modern professions required formal education, credentials and regular training for a prescribed period. Their orientation is secular and scientific whereas the legitimacy of the traditional professions was generally rooted in religious support and theology. In principle, the procedure for training
and recruitment of modern professions severed their relationship with the caste system. The rise of modern professions in the first part of the nineteenth century created a new work-culture which was based on education, training, certificates, regular hours of work, regular payment of salary or private practice and market for the free professions.

The traditional and modern professions may be distinguished from each other on the basis of practitioner-client relationship, sources of power and authority, and professions in institutions of social control as indicated by Johnson (1972). In developing the typology of social control in professional contexts, Johnson keeps in view the relationship between producer (professional), consumer (client) and the state. In collegiate control, the procedure defines the need of the consumer. In patrols and community controls, the consumer defines his needs and the manner in which he "will have them satisfied. In meditative control the third party (now-a days state) defines the need of the consumer and the manner in which these needs will be satisfied by the producer.

Keeping in view the method of recruitment, role performance and expectations and procedure for training of the traditional and modern professionals in India, a new typology of control, as given below, may be developed.

Archaic Scriptural Control: This typology is applicable in the case of traditional professions such as priesthood, astrology medicine, and law. The criteria of eligibility, method of recruitment, training and procedure for role performance were laid down in the Hindu and Islamic scriptures. In this model, the professional and client relationship was based on Jajmani system and the principle of hierarchy related with it.

Community Control: As discussed earlier, this type of control was more visible in the case of craftsmen and artisans. They had their caste council's guilds to control the methods of training, recruitment and the relationship between the
producer and the consumer. The community and sculpture controls were supplementary to each in the traditional professional model.

State Control: With the beginning of the British colonial system and its administrative requirements, state-central of the professions started in India. The state decided the criteria of eligibility, method of recruitment and training of the doctors, civil servants, Vakils, judges and teachers in the beginning but in the fields of law and justice it took the help of scriptural and communal control.

Collegiate or Professional Control: This system started in India with the opening of universities and setting up of professional associations such as Medical council of India, the Bar Council of India, the University Grants Commission, the Indian Academy of Science" the Indian Council of Social Science Research, etc.

There are social, economic and cultural implications of professionalisation in India. First of all, it created a dual-professional culture, particularly in the field of medicine and law (Leslie 1973- Galanter 1973). The allopathic medicine was patronised more by the state and it was concentrated in urban centers. Its clients were confined to the educated upper class, Europeans and the urban middle class (Jeffery 1976). The Ayurveda and Yunani medicines (Neumann 1971; Brass 1973) were more popular with the masses. The reasons were economic as well as cultural. The common man thought that the allopathic medicine was alien and it did not suit the culture and values of India. On the other hand, it was more expensive and allopathic doctors were generally beyond the physical and financial reach of the common men and villagers. A person trained in allopathic medicine had easy access to the military medical core and the civil medical departments for appointments. Though, the western medicine was patronised by the state, yet some of the most distinguished Indians such as Mahatma Gandhi Madan Mohan Malaviya, Vinoba Bhave and Dr. Rajendra Prasad had faith in the efficacy of the
indigenous medicine which gave it respectability and the state provided facilities for training and recruitment which helped in expanding its market.

From 1773 to 1835, a dual legal system was practiced in India in which the major emphasis was on adopting the communal-legal systems of the Hindus and Muslims and English procedures in court. English Law was based on the principle of individuality whereas the traditional social and economic organisations had community organisation. During the British period also, the tribal councils, caste panchayats and village panchayats continued to operate effectively. The western legal system introduced the principle of equality before law, procedures of evidence, modern courts and trained legal practitioners. At the same time, it produced complicated and impersonal procedure, encouraged litigations and tutored evidences. The new legal system affected the solidarity of the rural communities thereby leading to factionalism and cleavages. At the cultural level, members of professions adopted a style of life, which was a mixture of the western and Indian customs. This cultural duality is visible even today in language, dress, manners and style of life. In the urban middle class Indian families, the difference in the languages of office (English), home (generally dialects), market (Hindi, Urdu and other regional languages) and rituals (Sanskrit or Arabic) is conspicuous. The western dress is used in office while the traditional Indian dress is used at home. Professionalisation has influenced stratification, class and mobility. Modern education and professionalisation have de linked occupations from caste. Entry to professions is based on merit, training and specialisation instead of birth, heredity and caste. Professionalisation has developed a new pattern of occupational differentiation. Members of professions, generally, belong to the middle-class and occasionally to the upper class. It has accelerated physical, occupational and social mobility. The skills associated with specialisation are knowledge-resource has widened the gap between the common man and the professional. In the caste model also this gap was there but it used to bring people together through inter.
dependence and the Jaiminy system. But today there is a vast differential access to education, medicine and law. Class formation is equally visible among the professionals and their clients.

Recently, a number of empirical studies dealing with "private law practice and legal service in Ghana (Luckham 1976), relationship between physicians and social workers in a mental health center in the U.S.A. (Lorber and Satow 1977), medical doctors in Canada (Marsden 1977), doctors, lawyers, civil servants and teachers in India (Dubey 1975) have shown the nature of internal stratification. Differential power, authority and income among the professions. In India, private practice is popular in the field of law and medicine. The other professionals generally work in government organisations. Thus, there are problems of bureaucratization of professions, problems of adjustment between organisational and professional ideals and the increasing gaps between the ideal-type attributes of professions such as service and community orientation and the actual practice associated with profit-motive and market orientations. We have indicated earlier that most of the educated Indians, because of the prestige, authority and security associated with government jobs, preferred to work in government departments, The trained professionals preferred to join the judiciary, central or provincial medical services and teaching in government schools and colleges. After joining government departments, professionals work as ‘deskmen’ and as compared to their professional norms increases they are more governed by bureaucratic regulations and procedures. Thus, the professional model, as an alternative to the bureaucratic model, could not take a proper shape in India. Sometimes, these professionals are confronted with conflict between the values of organization where they work and the values of professions in which they were trained.

Gradually, professions of journalists and creative writers have proved to be influential on society at large. Of late, architecture, interior decoration and
chartered accountancy have also been growing as important and respectable professions in India like in other parts of world.

The recent Indian work on professions may be divided into studies of traditional professions (gha: Ph.D. Thesis 1965; GopalKrishnan: Ph.D. Thesis 1967; Singh: Ph.D. Thesis 1967; Gomathinayagam 1974; Subraminiam 1974; Patil 1975) and the modern professions (Henri 1923; Shils 1961; Dubey 1968, 1972, 1975; Madan 1969,1971, 1973; Shri Chandra 1971; Singha 1972; Nagpaul 1972; Morrison 1973; Gosling 1974; Lal, 1974; Aurora 1976; Ommen 1978). A number of Ph.D. Theses in Indian Universities such as the study of the army (Chaudhuri; Agra University), the Academic Elite: A study in the Sociology of Professions (Farnquque: Agra University), Female nurse (Varm: Gorakhpur University, Tomar: Lucknow University), Doctors (Tewari : Lucknow: University) and Lawyers (Trivedi : Lucknow University) were reported to be in progress. The Indian Council of Social Research, since 1970, has sanctioned a number of research projects for the study of relations between lawyers and their clients (Sharma 1974), the Political World of Contemporary Hindi speaking intelligentsia (Malik 1974), Home Scientists (Saraswati 1975), Indian Professional Middle Class (Subramaniam 1975) and Study of Physicians and Nurses in Delhi (Gem 1975). Generally, Indian study on modern professions have followed the structural functional approach and have keep in view the role theory and the classical ideal types and attributes of professions.

The recent studies dealing with traditional professions are mainly concerned with the different priestly functions of the Brahmins. One of the studies, (Jha 1980) makes an interesting study of 'Panji and danjikars of Mithala' (genealogists in North Bihar), whereas, another study (Singha 1917) has thrown light on the socio-economic conditions of the ‘Gangaputa Pandas’ of Varanasi – an important religious center in India. Apart from these two studies conducted in North-India, a few studies have been conducted in South India also, M.S.
Gopalakrishna (Ph.D. Thesis Madras 1967) is concerned with the study of the high priestly caste of Kerala – the Nambudiris. Subramanim (1974) has studied the Smarthas – domestic priests selected from Mayavaram and two other villages in Madras. She is concerned with occupational patterns, education and income of priests and has compared their roles and functions vis-à-vis the Brahmins. This study has examined the relationship between the senior and junior priests, their kinship and professional relationship, and teacher-trainee relationship. As regards professional training, the priests are trained in a number of Veda Pathshalas (schools) for a period of eight to ten years.

A similar study deals with the social organisation of the Dikshitars, the owners, managers and priests of Natraj temple, living in Chidambram (Gomathinayagam 197-1). Their traditional status, like that of the Nambudiris of Kerala, is high in the caste-hierarchy. Another Study (Patil1915), takes into account the institution of the Deradasis, ice origin, regional variations and its effects on Indian society. The institution of Devadasis originated in the third century A.D. when the dedication of girls to temples started. Traditionally, Devadasis occupied a status next to the priests in temples and their function was to perform dance at the time of worship and prayer. Later on, they were sexually exploited and the institution degenerated into prostitution. The above studies reveal that the traditional professions are declining under the impact of modern education, economic pressure and changing perception of status. The sons and daughters of the traditional professionals are not interested in their family professions in today's competitive world. The same is the case with the secular-traditional professions which are found to be uneconomical and the people engaged in them for generations are adopting new occupations. The Indian studies of modern professions may be classified and analysed as follows:
Modern education, professions, stratification and mobility (Dubey 1967, 1972, 1975) with social reference to doctors, lawyers, engineers, civil officials, University and college teachers. Social background of allopathic doctors, the process of change a career in medicine, the image of the profession, the role performance of doctors and doctor-patient relationship (Madan 1959, 1972; Shrivastava 1978; Ommen 1978). Indigenous medicine (Lestle 1913; Alexander 1969; Neumann 1971; Paul Brass 1973). Studies on University teachers and intellectuals their background, role structure, position, and modernisation among them (Shils 1961; Singha 1972; Rudolph and Rudolph 1972; Sandhu 1973).


If we look at the areas of gaps first or all on the macro-leave there is the problem of accurate and up-to-date data. The reports of the Census of India and the Institute of Applied Manpower Research are of tremendous help. The I.A.M.R. Annual Reports have covered allopathic doctors (1966, 1962), engineers (1966), dentists’ non-allopathic doctors (1961), and Graduates of Indian Institutions of Technology (1961) migration of Indian engineers, scientists and doctors to the United States (1963). Dentist (1966) and nurses (1966). But these data are also quite old. Fresh, systematic: ifl (accurate stock-taking is required. The Indian
studies on professions are mainly concentrated on allopathic medicine, law, teaching, civil service and nursing. There is hardly any work of merit on architects, chartered accountants, aircraft and ship officers, jurists, workers in religion particularly the Christians clergy, Sikh-granthi and Muslim Ulema. Journalists, painters, and photographers.

Though the percentage of professionals was only 2.3% in India in 1971, yet professionals enjoy a special place in our social structure. In this connection, it is noteworthy that there are different levels of the Indian social structure and of the professions. In India, the process of professionalisation cannot be separated from the role of the State. The first process of modern professionalisation was the direct result of the Regulation Acts. Even today, the state is the largest employer of professionals in the army, civil service, Foreign Service, judiciary, medical service, mass media and public works.

Architects and chartered accountants are also free from the direct control of the state but they have not made much important all social life. Most of the Indian values on professions have followed the structural-functional approach and have uncritically accepted the classical attributes of the professions. With the changing pattern of stratification and emerging social formations there is a need to understand the pattern of internal stratification of the professions as well as their clients. This point may be explained by taking the examples of law, medicine and engineering. In the past Independence period, planned efforts have been made to expand the educational facilities medicine, law and engineering. Almost all Universities (excepting Agricultural University) have facilities for training in law. Training in medicine and engineering is imported through medical colleges, technological institutes, engineering colleges and the prestigious Indian Institutes of Technology. Most of the engineering graduates seek government employment. Only a few of them work as independent architects, engineers and industrialists. There are regular faculty members and teachers in medicine, law and engineering.
Their structure is internally stratified on the pattern of academic stratification known as Professors, Readers (sometimes called as Associate or Assistant Professors), Lecturers (in some institutions known as Assistant Professors) and Demonstrators. The teachers in the medical colleges have much scope for private practice. To systematic study has been done in this field but the study of the academic structure of medical colleges may be found of special significance in understanding stratification, income, authority, power and decision-making. One of the important attributes of the professions (apart from specialisation, expertise or knowledge monopole) is continuous improvement in expertise and knowledge base through research. From this point of view the teachers of medical colleges are in an advantageous position. The same is the case with the faculty members of the I.I.Ts and the engineering colleges. Some of them work as consultants for industrial organisations and this added to their income and helps in developing contacts with industrial houses. The courses are developed by the faculty members. An analysis of the internal structure of the professions of medicine, law and engineering may provide an opportunity to understand the nature of their relationship with the state and the market, conflict between the professional ideology and organizational rules and procedures, external constants, authority with the professions, knowledge as a resource and social background of people who have access to modern medicine and law.

In India, the profession of medicine is characterized by duality, internal stratification and dependence on the state. There are social strata consisting of top specialists, with M.R.C.P. and F.R.E.S. or without them, generally working as directors, principals and professors in medical colleges and institutes, or associated with some reputed hospitals or nursing homes, as private practitioners or employed doctors, followed by academic positions of Readers and Lecturers. Then there are M.B.B.S. degree holders and general practitioners followed by licentiates
in medical practice. At the lowest ladder of the medical hierarchy are the para-
medical personnel working as compounders, ward boys, nurses and midwives.

The same type of stratification is visible among the practitioners of law. In
most of the Universities, there are separate law facilities. In several cases, faculty
members in law colleges are the practitioners in high courts and the district courts.
The top faculty members, Deans and Professors or Readers are generally full-time
teachers. During the British period, legal practitioners with bar at-law occupied the
highest positions. Then there were Solicitors and Attorneys in the metropolitan
centers of Calcutta, Bombay and Madras. In other high courts, there were
Barristers at the top, followed by advocates, vakils. In the district courts, there
used to be advocates, Vakils and Mukrars (minimum qualifications metric or
intermediate with some training in law). No, there is no provision for-training in
Muktarship. There are three broad specialisations in the field of legal practice, i.e.,
civil, criminal and revenue. Some of them specialize in taxation. A clear hierarchy
is visible in the field of judiciary also. At the top is the Chief Justice of the
Supreme Court of India, followed by the judges of the Supreme Court, chief
judges of the different High Courts, judges of High Courts, districts, and sessions
judges, additional district judges, civil judges, Munsif and magistrates.

The pattern of stratification and hierarchy system within the profession is
helpful in understanding the place of professions in the general system of social
stratification and class organisation. This can be broadly understood by the income
of the first rate legal practitioners in the Supreme Court and the High Courts of
Calcutta, Patna, Allahabad, Bombay, Madras and Delhi (Rs. 50,000 per month and
above), whereas the average monthly income of a Vakil in a district court with
three to five years standing may be between Rs. 300 to Rs. 500 per month. Almost
the same difference may be visible in the income of the highly reputed medical
specialists practicing in a metropolis and a new entrant in medicine working either
as a private practitioner or as an employed doctor in government or non-
government organisations. At first, modern education and professional practice created urban middle class. Later on with the increasing internal stratification and relationship with market and chants, professionalisation in India has led to formation of upper middle and lower middle classes and the professionals may be classified among these classes.

The private practice of a doctor or an advocate depends on a number of factors, such as knowledge, specialisation efficiency relationship with clients, etc. The other sociologically significant factors are kinship, social networks, access and contacts. A look on the history of membership and organisation of caste associations, clubs, voluntary organisations and political parties will reveal a close link between them and the professions. The professionals in India have played important roles in the spread of westernization liberal outlook, reform movements, nationalism and political movements. Hardly, any serious attempt has been made to understand the linkages between castes, professions and private practice at the micro-levels in the different parts of India. The relationship between castes and professions may be understood in a number of ways. At first, professions were dominated by Brahmins and Kayasthas in Bengal and Bombay and by Brahmins in Madras because of their traditional contacts with education and their initial contacts with the British administration. With the spread of modern university education in the latter part of the 19th century, Brahmins, Rajputs, Muslims, Agrawals, Banias and Khatris of U.P., Bihar and Punjab also entered the professions. Even today, the different professions are dominated by upper castes and only a small portion of the professions consists of scheduled castes, scheduled tribes and other backward castes. In the beginning of the present century, the different Caste associations were generally organised by the members of professions particularly lawyers and doctors and in some cases civil servants. This was done by members of professions to enhance their areas of social contracts net-work, professions market and base for political work. Through their liberal
medical and western annotation, the members of the professions worked as catalysts against caste rigidity, untouchability, and Puradah system. The role of the professionals in socio-cultural change is another fascinating field, which has remained unstudied.

For a long time, the Indian politics was dominated by members of professions. The trend was much conspicuous after the formation of the Indian National Congress (1885) and the Indian Councils Act of 1892. Systematic studies are required to analyse the occupational and social background of local, regional and national political elite and their links with the professions. The lawyers and doctors were the first to join the national movement and to lead the freedom movement during the colonial period. The Indian Council (1892-1919), the Central Assembly of India (1920-1945) and the constituent Assembly of India (1946-1950) were dominated by lawyers and members of other professions. The same was the case with the Provincial Assemblies.

A) PROFESSIONS AND DEVELOPMENT.

Historically, the number of professions was limited: members of the clergy, medical doctors, and lawyers held the monopoly on professional status and on professional education, with military officers occasionally recognized as social equals. Self-governing bodies such as guilds or colleges, backed by state-granted charters guaranteeing monopolies, limited access to and behavior within such professions.

With the rise of technology and occupational specialisation in the 19th century, other bodies began to claim "professional" status: engineers, paramedics, educationalists and even accountants, until today almost any occupational group can -- at least unofficially -- aspire to professional rank and cachet, and popular recognition of this trend has made possible the widespread recognition of prostitution as "the oldest profession".
In the western side, classically, there were only four professions: the church, the military, medicine, and law. All these held a specific code of ethics, and members were almost universally required to swear some form of oath to uphold those ethics. Each profession also provided and required extensive training in the meaning, value and importance of that oath in the practice of the profession.

Sociologists have been known to define professionalism as self-defined power elitism or as organized exclusivity along guild lines, much in the sense that George Bernard Shaw characterized all professions as "conspiracies against the laity". Sociological definitions of professionalism involving checklists of perceived or claimed characteristics (altruism, self-governance, esoteric knowledge, special skills, ethical behavior, etc.) became less fashionable in the late 20th century.

A member of a profession is termed a professional. However, professional is also used for the acceptance of payment for an activity, in contrast to amateur. A professional sportsperson, for example, is one who receives payment for participating in sport, but sport is not generally considered a profession.

The professions and professionals in the modern context have come to occupy a position of importance in the society which is unprecedented in history. The number of professions has multiplied in all advanced societies and has become a part of the production system which is increasingly based on science and science based technology.

It is difficult task to offer a comprehensive definition of a profession. Not only has the concept of profession variety of meanings attached to it but also the group of occupation called profession has been assigned contradictory notions and cultural outlook. Moreover the historical of professions differ tremendously. While some professions can be traced to the hoary past, other occupational
1.8 STATEMENT OF THE PROBLEM.

In the literature review it is evident that the IT profession is not studied by sociologists from the perspective of sociology of profession or from the perspective of social mobility hence, that there is a need for sociological research. As IT sector is emerging both in terms of quantity and complexity with multitudinal social and psychological problems.

The present research problem attempts to study in depth, IT profession from a sociology of profession perspective. Further, by analyzing the different aspects of IT profession, we wish to identify the unique essential elements that are part of this profession and the socio-cultural factors, which are differing when, compared to other profession. The present study not only attempts to study IT profession but also examines the intergenerational mobility, intragenerational mobility and its relationship with various other important general trends of social mobility. Further, it intends to study the impact of both downward and upward social mobility of IT professionals.

1.9 CONCLUSIONS.

The chapter first is devoted to Introduction part. In this chapter we have given in-general introduction about, how mankind has entered the age of information technology and how information technologies have engulfed almost all the social institutions. Further we have explained how Indian society and its socio-economic structure are co-related to the IT era. Concerned to Caste and occupation the emerging trends are explained. Beginnings of Information Technology in India, development of Information Technology in India and particularly in Karnataka are also explained in detail. Discourse on sociology of profession and literature review had been done. we have discussed on professions and development.
1.10 REFERENCES.

6. Adam, William. 1935 Vernacular Education in Bengal and Bihar.


18. Hanri, Patric, 1923 Afedical Professions in India. Coast".


30. O'Malley, L.S.S., 1931 The Indian Civil Service.
37. Social Mobility among the Professions in a City in Transition, Popular Prakashan, Bombay. 1975
39. The Indian Express, Delhi, Jan, 4. 1976
41. Wilkinson, A., 1958 A Brief History of Nursing in India and Pakistan,