Chapter – I
Introduction

India became independent in 1947, marking an end to centuries of British rule in the country. Pandit Jawahar Lal Nehru, the first prime Minister of free India had a tough task ahead of developing a nation which had been charred by rampant exploitation by the Britishers, poor agriculture growth resulting in acute food shortage for the increasing population, poverty and the financial and socio-economic burden of partition of India. There was urgency for accelerating economic growth, making India self-contained and independent in food grain production, alleviating poverty, reducing dependence on external financial aid etc.

1.1 History of India’s Development

Foundation of India’s development post-independence was laid by the Planning Commission of India which was set by a resolution of the Government of India in March, 1950 for charting out the plans to achieve its goals of enhancing the standard of living of the people through efficient utilization of the resources (material, capital and human resources), increasing industrial production and employment opportunities. The commission has been responsible for drafting 5 year plans and annual operational plans to guide the nation’s strategy for development, evaluate the progress in implementation of these plans and recommend policy adjustments as demanded by the assessment results.

India’s development history can be described in two distinct eras- pre-liberalisation (1950-1990) and post-liberalisation (1991-2013). India’s growth trajectory since independence (1950 onwards) has been marked by phases of developments followed by a crisis which demanded adoption of new strategies for growth (De, n.d.).

Pre-liberalisation era witnessed a stagnating GDP growth of 3.5% also termed as “Hindu growth rate”. After independence, socialist reforms were ushered in and economic environment was largely characterized by increased Government control over the functioning of the economy, close regulation in order to prevent concentration of economic power in foreign and private hands and they were mainly targeted towards food security and
alleviation of poverty. Thus, reforms after independence were socialist in nature and were based on India’s struggle to achieve economic growth largely supported by Government which exercised greater control and regulation of the economy. Government’s development efforts through 1950-67 were mainly focussed on rapid industrialization. The first and second five year plans (1951-61) targeted at agriculture, power & transport, price stability and rapid industrialization respectively and third five year plan (1961-66) reinstated importance of agriculture following agrarian crisis in the nation. Two industrial policies were framed during this period- industrial policy, 1948 and 1956. This phase was characterized by significant rise in industrial growth (5.8%), import substitution with protection of domestic industries, improved literacy and life expectancy (Figure 1.1). However agriculture sector was ignored initially and as a result agriculture growth declined to 1.7%. Agriculture crisis forced Government to import food grains, Chinese aggression (1962) and Indo-Pak war (1965) inflated defence budgets adding further to the fiscal burden. Thus, a crisis in balance of payments resulted. Also the wars subdued the impact of Government initiatives towards agriculture on the lines on third plan (De, n.d.).

From 1967-90, taking cues from the agrarian crisis in 1960s, Government dedicatedly pursued the goal of revamping the agriculture sector. “Green revolution” was launched with an objective to make India self-sufficient in food grain production. It involved harnessing technology for modernization of agriculture, providing the farmers with high yielding variety of seeds, fertilisers and pesticides and government increased its subsidies for the promotion of agriculture. Also, nationalisation of banks, insurance, essential commodities under government control were some of the peculiar characteristics of the Indian economy during this time. On the industrial front, Government restricted the growth of private and foreign enterprises through various legislations like Industrial licensing guidelines in 1970, Monopolies and Restrictive Trade practices Act of 1969 and Foreign Exchange regulation Act of 1973 and Industrial licensing policy, 1977 and 1980. As a result many private organizations- General Motors, Pepsi, IBM and Coke ceased their operations in India (Sandesara, 1996). Thus, an industrial crisis set in due to stalled investment by the private sector and increased expenditure by Government in the form of increased subsidies towards its programs for poverty alleviation and rural development plans (fourth through seventh 5 year plans) raised the fiscal deficit to as high as 5.5%. Moreover, Government
funded its expenditure largely by commercial borrowings (De, n.d.). A crisis occurred in 1991 with negative agriculture growth and per capita income and GDP at 1.3% (Figure 1.2). The fiscal deficit and balance of payments crisis and pressures by International Monetary Fund and World Bank forced India to pursue liberalisation of the economy. Thus, by far the most significant economic reforms in the history of Indian economy were initiated with Dr. Manmohan Singh as the Finance Minister. The capital market reforms revamped the markets through technological advancements and making trading easier for the common man. Government’s policy changes like delicensing, increasing FDI cap in many sectors like insurance, retail, etc., doing away with MRTP Act and replacing FERA with FEMA in 1999 and full convertibility of current as well as capital account and many other policy initiatives changed the role of Government from regulator and controller to facilitator and promoter of private and foreign investment in the country.

Post-liberalisation, India went through a rapid growth phase experienced by all sectors of the economy, agriculture growth at an all-time high of 3.4%, industrial growth of 6.1%, services at 7.7% and overall GDP at more than 6% (Figure 1.2). Also the sectoral composition of GDP has also changed over the time. Agriculture now comprises only 26% of the GDP while earlier it contributed nearly 60% in 1950s indicating decline in dependence on agriculture; services sector constitutes 57% of GDP an increase from 30% in 1950s but it was services sector which recorded highest growth rates during post as well as pre-liberalisation times. The five year plans supported the liberalisation process and eighth and ninth plan focussed on improved quality of life, generation of employment, and alleviation of poverty etc. The result was improved foreign exchange, increase in FII's and FDI in India and the country emerged as the third most preferred destination for foreign investors. Along with the macroeconomic growth, the social factors have also shown significant improvement after opening up of the Indian economy. There has been reduction in poverty (from 35% to 26% in 2001) and improvement in Literacy (65% in 2001) and life expectancy (65% in 2001). The Figure 1.1 clearly indicates decline in percentage of people below poverty line, improved literacy rates where national literacy was 74.04% in 2011 and life expectancy as high as 66.5 years in 2011.
The growth of GDP and other sectors of the economy (Figure 1.2) namely, agriculture, industry and services have been considerable since independence and the growth trajectory has witnessed many ups and downs throughout the period of 1950 to 2008. Out of the three sectors, it is services which have experienced maximum growth i.e. above 10% levels which is more than the GDP growth.

Over the period of time (1950-2010), contribution of agriculture to the GDP has declined significantly from 55.3% in 1950s to 21.8% in 2000-2010 while share of industry
has grown from 14.8% in 1950s to 24.5% in 2000-2010 and that of services has grown considerably from 29.8 % in 1950s to 53.7% in 2000-2010 (Table 1.1). Thus, service has emerged as the largest growing sector in India’s development. However, although agriculture sector contributes least to the GDP, it employs 51.1% of workforce; industry provides employment to 22.4% of the labour force and services sector engages 26.6% of the labour forceMukherjee, A. (2012).

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On the lines of quasi-federal governance structure and the Constitution of India, services are categorised in different lists as shown in the box below:

**Box 1.1 Services Sector under different jurisdictions of the Indian constitution**

- **UNION LIST**
  - Telecommunications, postal, broadcasting, financial services (including insurance and banking), national highways, mining services

- **STATE LIST**
  - Health and related services, real estate services, retail, services incidental to agriculture, hunting and forestry

- **CONCURRENT LIST**
  - Professional services (legal, accounting, auditing and book-keeping, taxation, architectural, engineering, integrated engineering, urban planning and landscape architectural, medical and dental services and service provided by midwives, nurses, etc.), education, printing and publishing, electricity

Services listed in the Union List, fall under the jurisdiction of Central Government and State Government has no powers while those mentioned in State List are directly under the control of State Government and the ones specified in Concurrent List are jointly administered by central and state governments. Education is a subject of concurrent list i.e. both central and state governments can frame policies and exercise regulations regarding the education sector.

Despite consistent increase in contribution of services sector to GDP, education considered as part of social services sector, did not form an integral part of nation’s development process till 9th plan and it was not until the tenth five year plan (2002-2007) that the service of education gained importance in India’s plan for development. Tenth and eleventh five year plans (2002-2012) targeted primary education in order to achieve Education for All, Millennium Development Goal of alleviating poverty by promotion of primary education (UNDP, 2013). Thus, education became the agenda of Government’s strategy for development of the nation. However, importance of higher education in development process was given its due status only in twelfth five year plan (2012-2017). This indicates emergence of higher education as a vital sector with potential of fuelling India’s development in 21st century.

1.2 Role of education in economic development

19th century has been known as an era of industrialization. Countries across the globe focussed on mass production which was dependent largely on mechanisation of production function with little involvement of human skill in production. Towards the end of 19th century, the services sector grew considerably and similar trends were noticed in India’s development after independence where growth of services surpassed all sectors of economy (Figure 1.2). Progression in computer and information and communication technology, changed the way businesses operate – the entire world began to be interlinked, industrialised nations began focussing on exploring international markets for their products and services, span of organizational operations extended beyond national boundaries and advancements in biotechnology led to development of highly effective products. These changes resulted in the massive shift in the economic patterns of the developed countries. The developed economies were no longer the ones which excelled in manufacturing; rather manufacturing and other back end services which did not involve face to face interaction with
consumers, were outsourced to developing countries like India, China, Bangladesh, Indonesia etc. These advanced countries developed their growth model on Research and Development transforming themselves into “knowledge-based” economies (Kapur & Crowley, 2008). This shift towards knowledge driven economic growth has recognized human skill as a vital factor of production and a major determinant of competitiveness in the global economy. Since knowledge is gained by and from humans and growth and development of knowledge-based economies depends upon the skills of the people, importance of education in growth and development of a nation’s economy has come to the forefront.

Economic growth and development are two distinct concepts. Development is not limited to economic growth or macroeconomic growth indicators. It also includes factors like equality, standard of living, environment and sustainability (Thomson, 2008). Thus, economic development is a holistic concept which includes social development through indicators like poverty, mortality rates, fertility, literacy, women empowerment etc. in addition to economic growth into its realm. Further, development is a continuous process. On the other hand, economic growth is only one of the vital constituents of economic development. For example, Human Development Index by UNDP is based on no-GDP predictors of economic development. According to Faure (1972) development is “Learning to know, learning to do, learning to be and learning to live together”.

Education as an economic commodity implies that expenditure on education is considered comparable to capital investments whose benefits can be reaped in the times to come.

1.2.1 Education and Economic Growth

Hanushek and Woessmann (2007) cited three basic links between schooling and growth:

i. A chain of growth interlinking schooling to skills, to increased productivity, to greater growth of national income (this is generally the potential growth figures because actual growth may be subdued due to unemployment at macroeconomic level).

ii. Increase in education level is interlinked with greater innovation.

iii. A diffusion aspect to role of education in growth where improved education levels results in spread of new processes and technologies.
As per one estimate, a country with 1% higher literacy score than international average tends to achieve 2.5% higher labour productivity and 1.5% higher GDP per capita (OECD, 2006 Education at Glance).

Microeconomic view of the role of education in economic growth mainly focuses on the relationship between individual educational achievement measured in terms of number of years of schooling and individual income. Kreuger & Lindahl (2001) purported that with the addition of one year of schooling, earnings rise by about 10% in US. However, the approach has been criticised because length of time spent in school may not necessarily imply level of learning and whether greater number of years spent in school is synonymous with greater learning is dubious. Therefore, level of cognitive achievement measured through test scores has been cited as a better measure for examining association between education and earnings. Hanushek and Zhang (2006) studied the relationship between test scores (cognitive achievement) and income in 13 countries and found that rate of return on education in US and Chile was 10% (same as the findings of Kreuger & Lindahl, 2001). Macroeconomic view on role of education in economic growth takes into account the aggregate education level and aggregate national income. Research indicates that level of education can be measured in two ways- as education quantity such as enrolment numbers, years of schooling, literacy rate or spending on education (Cooray, 2009) and as quality of education measured through student/teacher ratios, scores on tests. Cooray (2009) conducted a research regarding impact of quantity as well as quality of education on economic growth (GDP) and concluded that enrolment ratios at primary, secondary and tertiary levels significantly and positively predict economic growth. He also recommended that education policy should consider improving the number of trained teachers and reduce student/teacher ratios. A strong influence of cognitive skills in mathematics and science (measure of education quality of workforce) on economic growth has been observed (Hanushek & Kim, 1995; Hanushek & Kimko, 2000; Hanushek & Woessmann, 2007).

In Indian context, findings from research studies correlate with international results. Tamang (2011) observed that with an increase of 1% in government expenditure on education, a corresponding 0.11% increase in GDP results. The reason behind low impact of expenditure on education on GDP as calculated in this study is that increase in government
expenditure on increase in number of schools and institutions of higher education has not resulted in improvement in quality of education in the country (Tamang, 2011).

Furthermore, the results regarding impact of education on economic growth differ according to discipline. As cited by Hanushek & Wößmann (2007) countries with more engineering majors grow faster than those with fewer engineering graduates and countries with relatively more law majors grow slower. Further, the impact may be influenced by the type of economy of a country. The circumstances in an underdeveloped country like Sub-Saharan Africa are different from developing countries like China, India, Mexico etc. as well as developed nations. In developed countries, secondary and tertiary education generates higher rate of returns than in other economies. Also, it has been cited that returns from investment in education are enhanced as a results of greater participation by girls/women (Hanushek & Wößmann, 2007).

1.2.2 Education and Economic Development

Education has been regarded as the basic human right by the constitutions across the world. Education is a multi-pronged construct and almost every factor constituting development is intertwined with development and growth of education. Education has an indispensable role in development, so much so that it is goal number two “Universal primary education” in Millennium Development Goals of UN (UNDP, 2013) and underlies goal to promote gender equality and empower women through equality in education (Box 1.2).

**Box 1.2 Millennium Development Goals by UN**

UNITED NATIONS in pursuance of its aim to free the entire world from the clutches of poverty had put forth eight Millennium Development Goals to be achieved by the year 2015

- Eradicate extreme poverty and hunger
- Universal primary education
- Gender equality and women empowerment
- Reduce Child Mortality
- Improve Maternal Health
- Combat HIV/AIDS, Malaria & other diseases
- Environmental Sustainability
- Develop a global partnership for development

Source: UNDP. (2013). The millennium development goals.
Also, UN’s Education for All (EFA) program for providing quality primary education to children all over the world supports the importance of education in comprehensive development of nations. Millennium development goals are intertwined with basic education which is considered to be imperative in achieving all of the eight goals. From the perspective of these goals, education plays an important role in progression through:

Empowerment of girls- educating girls helps reduce poverty, delay of marriage, and improve their health and girls can make healthier choices for their families as well. According to Herz & Sperling (2004), on an average, with every year of progress in girls’ education after three or four grades a 20% increase in wages and a 10% decline in the risk of their children’s mortality due to preventable diseases will result.

Reduce infant mortality and better maternal health- women with basic education stand greater chances of availing prenatal care, assisted childbirth and thereby reducing the child mortality and better health during and after pregnancy.

Reduce hunger- greater participation of females in education has positive outcomes in reducing malnutrition. International Food Policy Research Institute (IFPRI) conducted a study in 63 countries and found that female education led to more productive farming and reduces malnutrition by 43% between 1970 and 1995 (Smith & Haddad, 2000).

Fight HIV/AIDS- awareness towards HIV/AIDS is the best way to prevent the disease. Thus, basic education of people ensures that they are aware of HIV and that it could be prevented. Education has been labelled as a “social vaccine” against AIDS.

Fight poverty- since education is a significant predictor of individual income and GDP of a nation; it holds the power to reduce poverty. A 10% increase in individual earnings has been associated with every additional year of schooling and this leads to 1% annual rise in GDP if entire population is provided quality education (Kreuger & Lindahl, 2001).

Peace building- education nurtures peace. Education makes people aware of benefits of peace and reduces their tendency towards violence.
1.2.3 Role of higher education in development

Development of a nation depends 64% on its human resources and social factors, 20% on its natural resources and 16% on infrastructure (Misra, 2012). This indicates the need for guiding a high quality and well trained human resources from our education systems. So far, the role of basic education in development has been highlighted and the significance of higher education has been largely ignored especially in developing countries (including India). Several factors are responsible for undermining the role of higher education in development.

i. Developing nations have been grappling with the issues of poverty, earnings, health, food shortages, diseases, etc. Hence the development programs largely focussed on ensuring provision of basic needs (food, shelter, clean drinking water, sanitation etc.) to their growing population. The initiatives for progression encompassed policy reforms in these countries and in 1990s when importance of human capital came to the forefront, the development efforts were focussed on aspects of education which were directly associated with the growth of human capital of the impoverished. Thus major attention of policy improvements was on promotion of primary and secondary education. In the struggle for upliftment of the poor, the significance of higher education in the development process of nations took a back seat (Kapur & Crowley, 2008). In Indian context, development programs and policy initiatives originating from the series of five-year plans beginning in 1950 to 2000 were largely targeted at making country self-reliant in food grain production, promotion of employment, industry, liberalisation of the economy, etc. Education was part of the policy initiatives but it emerged as the sole objective of planning only in the tenth plan (2002-2007) when achieving universal access to primary education by 2007, increasing literacy rate to 72% by end of this plan and reducing gender inequality in literacy by 50% formed the integral part of the goals of the plan. Therefore, growth and development of basic education towards economic progression was targeted only in tenth plan. Higher education, as a priority sector for development was targeted in twelfth five-year plan (2012-17). Since then, Government in India is pursuing rapid expansion, growth and inclusiveness of higher education aggressively.
ii. Researchers have stated that gainful contribution of education towards growth unfold only in an open economy because the closed economy lacks the capability to leverage new knowledge (Chaterji, 2008). Therefore, higher education was largely ignored because its need emerged with the globalisation and liberalisation of developing economies. A research based on time series data of pre-liberalisation period (1966-1996) found that it is largely growth in primary education which contributes economic growth, growth in secondary education has moderate impact while tertiary education has been insignificant in growth (Self & Grabowski, 2004). At the same time, quality of higher education lies in terms of its ability to impart the requisite skills for employment and there should be ample employment opportunities for graduates for the effects of higher education to be revealed. Therefore, higher education development initiatives will be fruitful only when accompanied with sufficient job opportunities which are consistent with the skills learned at the tertiary level.

iii. Empirical evidence regarding role of higher education in economic growth is very less due to the fact that investigating the rate of return on investment in higher education is highly complex and time consuming. Unlike primary and secondary education, returns to investment in higher education are not apparently visible and positive outcomes emanate only after a certain period of time. For example, an increase in number of PhD degree holders will take long time to generate benefits to the society from their research. Also, returns on higher education spending are more difficult to measure because unlike scores on tests for measuring result of basic education, appropriate measures of quality of higher education courses would be effective performance or enhanced productivity on the job undertaken after the completion of course. Therefore, traditional measures of return to education are not accurate estimates of value added by higher education.

Therefore, higher education sector was a neglected one for a long period of time in the history of developing nations including India and the role it has in the economic growth and development was largely undermined. However, in the last few years, there has been a shift in the pattern of national economies. The phase of rapid industrialisation in 19th century has given way to services sector and demands on businesses to expand their markets supported by advanced Information and communication technologies have promoted the integration of world economies characterized by dissolution of national boundaries to embrace foreign enterprises, emergence of entire world into one global village and an
increased access to resources- financial, human, technological, etc. Thus, globalisation has finally taken off its wings. A global economy is characterized by dynamic business environment, ever-changing technology, increased workforce diversity and flexibility in business operations mainly in aligning businesses with the socio-cultural environment of the host countries. In such an environment, the emergence of human resource as a determinant of national success is imperative and human skill is now the most indispensable factor of development. The world economies have evolved from agriculture-based into industry based and eventually to knowledge driven growth.

A knowledge-based economy implies that the growth of a country is largely guided by the research and development, technological innovations, advancements in science etc. The role of higher education in development is now being increasingly recognized and its contribution lies largely in good economic and political governance, creation of jobs, increased entrepreneurship and intergenerational mobility (Bloom, Canning & Chan, 2006) towards economic progression of nations (especially India) through various ways as shown in Figure 1.3.

**Figure 1.3 Role of higher education in economic development**
Higher education and human capital development

Higher education is vital for development of human capital in terms of professionals like doctors, engineers, teachers, accountants, lawyers, bankers, environmentalists etc. The pool of knowledge vested in these professionals needs to be nurtured for greater economic development and growth. The economic relevance of higher education emanates from its role in enhancing skills and in documentation of human knowledge in the form of journals, publications, books etc. Human capital development yields greater returns in the long run. Global economic and political leadership of US has been attributed to country’s advanced higher education system. Human capital plays an important role in thrusting democratic ideals in the society and in spawning intellectual and industrial competitiveness of a nation (Kapur & Crowley, 2008). Thus, higher education institutions (HEIs) are a source of human capital for producing and spreading knowledge. The impact of higher education on development is rooted in its role in creating human capital and most importantly teachers who spread education at all levels.

Higher education and Research & Development (R&D)

In addition to generating a brigade of professionals, higher educational institutions are the breeding grounds for research in various disciplines. Since privately developed technologies are patented and are subject to Intellectual Property Rights (IPR), it becomes difficult to access these technologies. Moreover, foreign technologies may not be suitable for domestic use and are more expensive than indigenously developed technologies. Therefore, there is urgency in developing countries to speed up R& D efforts to develop indigenous technologies which in turn are entirely dependent on tertiary education. An example in this case is the emergence of universities as research hubs in various countries – MIT, Harvard in US and IITs and IIMs in India. HEIs in developing countries can embrace the R&D model of universities in developed world to enhance their competitiveness in the global knowledge economy. A new strategy for deriving economic benefits from HEIs has been observed wherein “university-industry partnerships, technological licensing, consultation by faculty, contract research, cooperative research” are propelling research and generating income from such collaborations (Hatakenaka, 2003).
**Higher education and economic growth**

Higher education results in better employment opportunities, higher salaries and thus contributes towards greater individual earnings. There is a two way relationship between higher education and economic growth. Greater economic growth in a sector leads to increase in demand for skills required in that discipline. An example in this regard is the Indian IT industry which developed software services and products for the domestic as well as international market. IT industry spurred the demand for IT professionals, thereby leading to expansion of technical education especially engineering in the country. At the same time, enhanced skills and R&D promoted by higher education leads to greater innovation and creation of new avenues and industries. Research work in the universities may be harnessed to float new enterprises which in turn enhance job opportunities for the people of the nation. HEIs in India are waking up to facilitating the conversion of research activity in their campuses into entrepreneurial ventures. IITs and IIMs have already established entrepreneurship cells in their premises as a step towards helping students start their own businesses e.g. Society for Innovation and Entrepreneurship (SINE) at IIT Mumbai acts as an incubator which supports technology based entrepreneurship. However, the increased Government spending on education and its impact on economic growth has been contradictory because increased spending must trickle down to reach the target population and should result in improvement in quality of education and must be accompanied with employment opportunities for the effects of education to bloom.

**Higher education and sustainable socio-economic development**

Although basic education helps to reduce poverty by imparting skills that may help individuals secure a livelihood but literacy and basic education rarely provide employment skills that can ensure a reasonable salary or standard of living (Higher education and development, 2007). Sustainable socio-economic development means, “Education systems focus on human capital and human development, on economic growth as well as poverty alleviation, on modern technologies as well as traditional methods, and on global as well as local concerns” (Higher education and development, 2007). An analysis of data on higher education, economic growth and economic development (poverty and human development indicators such as infant mortality and life expectancy) in India and other nations asserted
that higher education is responsible for enhanced earnings, reduction in absolute and relative poverty, increase in life expectancy and decrease in infant mortality (Higher education and development, 2007). HEIs support sustainable development through research and development activities targeted towards development of products and services that are technologically, economically and environmentally viable. As cited by Johnston (2007), according to UNESCO HEIs support sustainable development in two respects,

...“first, universities form a link between knowledge generation and transfer of knowledge to society for their entry into the labour market. Such preparation includes education of teachers, who play the most important role in providing education at both primary and secondary levels. Second, they actively contribute to the societal development through outreach and service to society”...... (Johnston, 2007).

**Higher education and women empowerment**

To quote Pt. Jawahar Lal Nehru, “If you educate a man you educate an individual, however, if you educate a woman you educate a whole family. Women empowered means mother India empowered”.

Women empowerment can be described as, “Means extending choices - choices about if and when to marry, choice about education, employment opportunities, controlling the social and physical environment, choice about if and when to get pregnant and ultimately about family size” (Taxak, 2013). Thus, empowering women indirectly results in controlling population, improving maternal health, spreading education to entire family to name a few. The basic and foremost importance of higher education in a nation’s development lies in its ability to empower people and raise the quality life by providing a platform for development of knowledge and skills and if it is women it indicates greater benefits to the society as a whole. Self & Grabowski (2004) found that female education at all levels is important for the growth and the rates of return to education have been found to be greater in case of women. In India literacy rate for females is 65.46%, which far less than national (74.04%) and males (82.14%) literacy levels (Ministry of Finance (2013): Economic survey, 2012-13). The first step towards empowering women in India would be to educate them not only till graduate levels but way beyond that so that they become self-dependent.
Higher education and policy making

Last but not the least, higher education with its capacity to generate professionals and researchers in various disciplines—medicine, arts, finance, economics, technology etc. helps to generate policy makers. These policy makers equipped with the knowledge and skills gained in the HEIs draft the policies for growth and development of the nation.

Therefore, education in general and higher education in particular is indispensable for making the world a better place to live and HEIs occupy central role in the development of a nation. To quote: ‘Universities play a crucial role in generating new ideas, and in accumulating and transmitting knowledge and through their research and teaching they help to develop expertise, manage development, engineer social transformation, and preserve social values and cultural ethos’ (Higher education and development, 2007).

Despite considerable growth India has not fared well as compared to developed and other developing countries. It ranks poorly at 136 in Human Development Index, 2011 (Rajadhyaksha, 2013). India’s dream to be a developed economy can be realised only with the support from higher education sector which holds the key to holistic and sustainable development.

1.3 Higher education in India- Structure, Growth and challenges

1.3.1 Background

Education has been highly revered in India since ancient times and it was considered not merely a source of earning a livelihood. In ancient times religious institutions provided education and were named as Gurukulas, Madrasas, Viharas and Agraharas and India had advanced higher education system and the country was a world leader in science and philosophy. History of higher education can be traced back to Nalanda and Takshashila institutions. Nalanda university was host to students from different parts of the Asian continent i.e. students from South-East, Middle East and Tibet etc. To quote Max Muller (as cited in Rao & Singh, 2009),

“If I were asked under what sky the human mind has most fully developed some of its choicest gifts, has most deeply pondered on the greatest problems of life, and has found
solutions to some of them which well deserve the attention of even those who have studied Plato and Kant, I should point to India”.

The present system of higher education in India can be attributed to Mountstuart Elphinstone's stance of 1823, which emphasized the need for institutions imparting education in English and the European sciences. This was followed by Lord Macaulay’s viewpoint on "efforts to make natives of the country thoroughly good English scholars" in 1835. Sir Charles Wood's Dispatch of 1854, popularly known as the ' Magna Carta of English Education in India', proposed establishment of a coherent scheme of education right from the primary school to the university (UGC Genesis). It encouraged indigenous education. Subsequently, the universities of Calcutta (now Kolkatta), Bombay (now Mumbai) and Madras (now Chennai) were set up in 1857, followed by the University of Allahabad in 1887. However, the underlying aim of the Britishers for establishing higher educational institutions was to promote Christianity, to have a group of scholars in Muslim and Hindu law and to impart knowledge about Indian languages, law and history to Britishers. During the second part of the 19\textsuperscript{th} century, people were gradually waking up to the weaknesses of Western culture and were dissatisfied with the existing Missionary and Government institutions. There was a wave of pride in Indian history and cultures and the younger generation recognized their capability of building a strong character and knowledge base. Thus a few higher educational institutions were created which propounded Indian culture- Anglo-Mohammedan Oriental College in Aligarh (1875), DAV College in Lahore (1886), Central Hindu College in Varanasi (1898) to name a few (Rao & Singh, 2009).

Central Advisory Board of Education (CABE) was set up in 1921 to look into the role of education and in 1925 the Inter-University Board (later renamed as the Association of Indian Universities) was established for the promotion of university activities, through exchange of information and collaboration in the field of education, culture and allied areas. In 1944, CABE, through a committee on “Post-war plan for educational development in India” also termed as Sargeant plan recommended universalisation of primary education and improvisation of quality of education to make Indian education system competitive with those of industrialised nations (CABE, 2005). Britishers had established large number of
higher educational institutions and at the time of independence there were 19 universities and hundreds of affiliated colleges (CABE, 2005).

1.3.2 Structure

The higher education sector falls under the purview of Ministry of Human Resource Development or MHRD’s Department of Higher Education with a vision to ‘realize India’s human resource potential to its fullest in the education sector, with equity and excellence’. India has a well-developed higher education system imparting education in large number of disciplines- arts & humanities, sciences including social sciences, engineering & technology, management, dentistry, medical sciences, hospitality etc. The framework of institutions includes Central Universities, established by an Act of Parliament; State Universities, created by an Act of State Legislature; Deemed Universities, i.e. institutions authorised to bestow degrees by a central government notification; Institutes of National Importance; Institutes launched by State Legislative Act and affiliated colleges. These institutions impart education at three levels granting qualification at

i. Graduation level (3 to 4 years duration)

ii. Post-graduation level (2 years)

iii. Doctoral level.

Additionally, Diploma courses at undergraduate and postgraduate level are also offered.

The basic structure of higher education in India is best explained by the diagrammatic representation in Figure 1.4. There are different categories of institutions providing different courses e.g. universities and colleges provide formal education, engineering and management schools impart technical education, Industrial Training Institutes (ITIs) educate through development of skills demanded by a particular industry and vocational education which trains people in job-specific skills. There is a regulatory framework which issues guidelines specifying conduct of these institutions and accreditation bodies allocating certifications in quality based on multiple factors. The central governing body for all universities in India is UGC.
### Figure 1.4 Structure of higher education in India

<table>
<thead>
<tr>
<th>Formal Education</th>
<th>Technical &amp; Professional Education</th>
<th>Skill Development</th>
<th>Vocational Training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Composition</strong></td>
<td><strong>Engineering colleges</strong></td>
<td><strong>ITIs</strong></td>
<td><strong>Finishing schools</strong></td>
</tr>
<tr>
<td>Universities</td>
<td>Management schools</td>
<td>ITCs</td>
<td>English training</td>
</tr>
<tr>
<td>Colleges</td>
<td>Law, Medical etc.</td>
<td>Private skills</td>
<td>Airhostess</td>
</tr>
<tr>
<td>Institutes of national importance</td>
<td></td>
<td>development centres</td>
<td>academies</td>
</tr>
<tr>
<td>Polytechnics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Key Regulators</strong></td>
<td><strong>DGET for ITIs &amp; ITCs</strong></td>
<td><strong>No regulation for others</strong></td>
<td></td>
</tr>
<tr>
<td>UGC</td>
<td>Bar Council of India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Government</td>
<td>Medical Council of India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IGNOU</td>
<td>ICAI</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Accreditation Bodies</strong></td>
<td><strong>NAAC</strong></td>
<td>NBA</td>
<td>NONE</td>
</tr>
<tr>
<td><strong>Key Players</strong></td>
<td>IITs, IIMs, IISc</td>
<td>XLRI Jamshedpur, BITS Pilani etc.</td>
<td>ITIs, ITCs, private centers</td>
</tr>
<tr>
<td>Central universities, Amity university, Delhi university</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Deloitte (2012). Indian Higher Education Sector- Opportunities aplenty, Growth unlimited.
UGC- the central governing body

In 1944, the first stride towards formulation of a national system of education in India was taken, following the ‘Sargeant Report’ of the Central Advisory Board of Education (CABE) on Post War Educational Development in India. On the guidelines of the report, a University Grants Committee was formed in 1945 to administer the conduct of three existing Central Universities of Aligarh, Banaras and Delhi. In 1947, the responsibility for managing all the then existing Universities was brought into the purview of the committee (UGC Genesis).

In 1948, the University Education Commission set up under the Chairmanship of Dr. S Radhakrishnan "to report on Indian university education and suggest improvements and extensions that might be desirable to suit the present and future needs and aspirations of the country" advocated the reconstitution of University Grants Committee based on the model of the University Grants Commission of the United Kingdom under the Chairman and other members selected from amongst educationists of repute (UGC Genesis). The Union Government in 1952 decided that allocation of grants-in-aid from public funds to the Central and other Universities and Institutions of higher education be referred to the University Grants Commission. Eventually, on 28 December 1953, the University Grants Commission (UGC) was formally inaugurated by Late Shri Maulana Abul Kalam Azad, Natural Resources and Scientific Research. However, the formal establishment of UGC materialised in November 1956, as a statutory body of the Government of India through UGC Act of 1956 for the coordination, determination and maintenance of standards of university education in India. The head office of the Commission is located at Bahadur Shah Zafar Marg in New Delhi and two additional bureaus operate from 35, Feroze Shah Road and the South Campus of University of Delhi. Further, UGC has decentralised its operations ensure effective region-wise coverage throughout the country. UGC has six regional centres in India- Pune, Hyderabad, Kolkata, Bhopal, Guwahati and Bangalore (UGC Genesis). The motto of the UGC is Gyan-Vigyan Vimuktaye i.e. knowledge liberates (UGC Genesis).

The UGC is the only grant-giving agency in the country with twin responsibilities: providing funds and determination, coordination and maintenance of standards in institutions of higher education and many other functions (Box 1.3).
Box 1.3 Functions of UGC

- Promoting and coordinating university education.
- Determining and maintaining standards of teaching, examination and research in universities.
- Framing regulations on minimum standards of education.
- Monitoring developments in the field of collegiate and university education; disbursing grants to the universities and colleges.
- Serving as a vital link between the Union and state governments and institutions of higher learning.
- Advising the Central and State governments on the measures necessary for improvement of university education.

Source: UGC Mandate.

In addition, there are professional councils responsible for recognition of courses, promotion of professional institutions and providing grants to undergraduate programs and various awards.

1.3.3 Recruitment and Selection of University teachers

UGC is the nodal body issuing guidelines for recruitment, selection and training of the teachers in the universities. It has issued Guidelines on minimum qualifications for appointment of teachers and other academic staff in Universities and Colleges and measures for the maintenance of standards in higher education 2010 (UGC, 2010).

The direct recruitment to the posts of Assistant Professors, Associate Professors and Professors in the Universities and Colleges is conducted on the basis of merit through all India advertisement. UGC (2010) guidelines have specified the minimum requirements for the appointment of Assistant Professors/ Associate Professors/ Professors as

i. a good academic record i.e. 55% marks (or an equivalent grade in a point scale wherever grading system is followed) at the master’s level

ii. Qualification of National Eligibility Test (NET), or an accredited test (State Level Eligibility Test - SLET/SET). The NET is conducted twice a year for various academic
disciplines and evaluates an individual’s performance on mental ability, teaching aptitude and the subject area (http://www.ugc.ac.in).

iii. A Performance Based Appraisal System (PBAS) has been institutionalised under which an applicant must meet the minimum score as stipulated in the Academic Performance Indicator (API). API is based on the research performance in terms of number and quality of research papers authored by the applicant and published in various journals, magazines, conferences, books etc.

Selection of the faculty members at various designations is carried out by the duly constituted Selection Committees as per the provisions made under UGC Regulations (UGC, 2010) to be incorporated under the statutes/ordinances of the concerned university. The composition of such committees should be as prescribed by the UGC in these regulations. For example, the Selection Committee for the post of Assistant Professor in the University should have the following composition-

i. The Vice Chancellor shall be the Chairperson of the Selection Committee.

ii. Three experts in the concerned subject nominated by the Vice Chancellor out of the panel of names approved by the relevant statutory body of the university concerned.

iii. Dean of the concerned Faculty, wherever applicable

iv. Head/Chairperson of the Department/School.

v. An academician nominated by the Visitor/Chancellor, wherever applicable.

vi. An academician representing SC/ST/OBC/Minority/Women/Differently-abled categories to be nominated by the Vice Chancellor or Acting Vice Chancellor, if any of the candidates representing these categories is the applicant and if any of the above members of the selection committee do not belong to that category.

In the same manner, guidelines for constitution of selection committees for the designations of Associate professor and professor are provided by the UGC.

The general criteria for evaluation of candidates and weightage associated with those criteria are also specified by UGC. Selection Committee conducts interviews and measures performance on these criteria to arrive at a summative score for each candidate. The basic Selection Committee criteria and weightage are as shown in Table 1.2 below.
### Table 1.2 Selection criteria and weightage for university/college teachers

<table>
<thead>
<tr>
<th>Assistant Professor</th>
<th>Associate Professor</th>
<th>Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic record &amp; research performance (50%)</td>
<td>Academic background (20%)</td>
<td>Academic background (20%)</td>
</tr>
<tr>
<td>Assessment of domain knowledge &amp; teaching skills (30%)</td>
<td>Research performance based on API scores and quality of publications (40%)</td>
<td>Research performance based on API scores and quality of publications (40%)</td>
</tr>
<tr>
<td>Interview performance (20%)</td>
<td>Assessment of domain knowledge &amp; teaching skills (20%)</td>
<td>Assessment of domain knowledge &amp; teaching skills (20%)</td>
</tr>
<tr>
<td>Interview performance (20%)</td>
<td>Interview performance (20%)</td>
<td>Interview performance (20%)</td>
</tr>
</tbody>
</table>

Source: UGC (2010).

Additionally, UGC has made it compulsory to qualify National Eligibility Test (NET) for all faculty positions in the universities and colleges as a step towards setting a quality standard for recruitment and selection of teachers and Junior Research Fellowships (JRF). NET is conducted by National Educational Testing Bureau of UGC twice a year in the months of June and December.

The test has three papers which examine a candidate’s competence in three areas—first paper evaluates teaching/research aptitude and assesses the reasoning ability, comprehension, divergent thinking and general awareness and second & third paper assesses the subject knowledge.

### 1.3.4 Training of University teachers

As part of National Policy on Education (MHRD, 1998), UGC has pursued the objective of training teachers through establishment of Academic Staff Colleges in universities and colleges across India. 66 ASCs have been set up in various universities in the country. ASCs are launched for conducting orientation programs and refresher courses in the institutions. Following UGC (1998) notification on “Revision of pay scales and minimum qualifications for appointment of teachers in universities and colleges and other measures for the maintenance of standards, 1998”, attending one orientation course and one
refresher course in a year have been made compulsory for career advancement of teachers. However, underlying themes in these training courses are limited in scope i.e. the training modules are designed to instruct subject knowledge, latest developments in the field of education and the course taught, and lot of stress these days is laid on imparting IT and computer technology skills to teachers, teaching how to conduct a research and SPSS packages. Also the methodology adopted for training is lectures by resource persons on various modules, which is often passive with little or no involvement of the teachers. At the same time, there is no induction program for the newly recruited teachers in the universities with focus on orienting them towards teaching. Also, so far there is no provision for formal training in education for university teachers i.e. Unlike primary school teachers, teachers in universities have no compulsion to complete Bachelor or Master in Education which imparts pedagogical skills before joining their duties as teachers. Moreover, university teachers do not undergo induction training following their selection for the job (UGC, 2011. Report on faculty shortage and design of performance appraisal system). Apparently, there is a lack of formal training targeted at developing effective teaching skills in university teachers.

1.3.5 Indian Higher Education—Growth

Growth of Higher education is now recognized as an integral part of India’s development. India is the third largest growing economy (in terms of GDP at Purchasing power parity) and is an ardent seeker of being part of socially and economically advanced societies. A vibrant economy, knowledge based social system and quality assurance is imperative for fuelling India’s growth towards a developed society. In the wake of Globalization, where countries have no trading boundaries, India’s educated citizens can propel its growth and can eventually be the deciding factor in India’s emergence as the next superpower. The fact that education and economic development are intertwined and that a nation’s prosperity lies in the extent to which its citizens are educated is unquestionable.

In terms of number of students, Indian higher education (IHE) sector is world’s third largest after US and China with 25.9 million students enrolled in higher educational institutions. IHE has witnessed stupendous growth since independence where number of universities and colleges has increased from 30 and 695 in 1950-51 to about 700 and 35000 in 2012-13 respectively. (Table 1.3 shows the segregation of the institutions and their numbers).
Table 1.3 Number of higher education institutions, faculty members and students

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Universities</td>
<td>44</td>
</tr>
<tr>
<td>State Universities</td>
<td>306</td>
</tr>
<tr>
<td>State Private Universities</td>
<td>154</td>
</tr>
<tr>
<td>Deemed to be Universities</td>
<td>129</td>
</tr>
<tr>
<td>Institutes of National Importance</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td>700</td>
</tr>
<tr>
<td>Total Colleges</td>
<td>35,539</td>
</tr>
<tr>
<td>Number of faculty</td>
<td>933761</td>
</tr>
<tr>
<td>Number of students</td>
<td>20,3,27,000</td>
</tr>
</tbody>
</table>

Source: Numbers as mentioned in UGC (2013). Higher Education at Glance

There has been more than twenty times increase in number of universities and about fifty times increase in number of colleges since 1950-51 (Figure 1.5).

Figure 1.5 Growth of Higher Education- Universities/Colleges/Students Enrolment/Teaching Staff in 1950-51 and 2011-12.

Source: As per figures drawn from UGC (2013). Higher education at glance.
Although student enrolments have increased significantly i.e. fifty one times from 1 lakh in 1950-51 to 20,3,27,000 in 2011-12 but with only 86, 72,000 girls enrolled in higher education, they have not been able to match the total enrolment numbers (Figure 1.6).

**Figure 1.6 Growth of students’ enrolment (‘000) in higher education**

![Graph showing growth of students' enrolment](image)

Source: As per figures drawn from UGC (2013). Higher education at glance.

Additionally, strength of faculty has increased only 39 times from 23,549 in 1950-51 to 9,33,761 in 2011-12 as evident in Figure 1.7 below.

**Figure 1.7 Growth of teaching staff in universities and colleges**

![Graph showing growth of teaching staff](image)

Source: As per figures drawn from UGC (2013). Higher education at glance.
Moreover, although there has been an increase in Government spending on education at about 3.9% of GDP but Government spends a meager 1% of GDP for higher education (Figure 1.8).

**Figure 1.8 Expenditure on higher education in India (as % of GDP)**

![Expenditure on Education and Higher Education as % of GDP](chart.png)

Source: As per figures drawn from UGC (2013). Higher education at glance.

RE stands for revised estimates

With significant growth in number of institutions, teachers and students, the growth of higher education in India is noteworthy.

Considering the level of education, affiliated colleges are largely responsible for undergraduate education, though some provide Post Graduate courses also. But Post Graduate and Doctorate level courses are generally provided under the university premises. For the year 2009-10, maximum number of students enrolled in Arts stream, followed by Science and Commerce/Management (Table 1.4)
### Table 1.4 Faculty-wise enrolment for 2009-10

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Total Enrolment</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>61,43,959</td>
<td>42.01</td>
</tr>
<tr>
<td>Science</td>
<td>28,22,623</td>
<td>19.30</td>
</tr>
<tr>
<td>Commerce/Management</td>
<td>26,07,638</td>
<td>17.83</td>
</tr>
<tr>
<td>Education</td>
<td>3,65,621</td>
<td>2.50</td>
</tr>
<tr>
<td>Engineering/Technology</td>
<td>15,10,762</td>
<td>10.33</td>
</tr>
<tr>
<td>Medicine</td>
<td>5,08,950</td>
<td>3.48</td>
</tr>
<tr>
<td>Agriculture</td>
<td>80,438</td>
<td>0.55</td>
</tr>
<tr>
<td>Veterinary Sciences</td>
<td>20,475</td>
<td>0.14</td>
</tr>
<tr>
<td>Law</td>
<td>3,43,688</td>
<td>2.35</td>
</tr>
<tr>
<td>Others</td>
<td>2,20,836</td>
<td>1.51</td>
</tr>
</tbody>
</table>

Source: MHRD (2013). All India survey on higher education.

During 2008-09, as per the figures by All India survey on higher education (MHRD, 2013), a total of 10,781 Doctorate degrees have been awarded in India with maximum number of PhDs in the discipline of Arts (3,496), Science (3,317) and Engineering (1,141) but very less in Management (330).

Therefore, the growth in number of HEIs has been in response to increased demand for higher education in the country indicated by the enrolment numbers. Corresponding with growing demand for higher education, there has been an increase in Government spending on higher education, increase in the government funding of higher education (twelfth plan
has enhanced allocation of Rs. 1,10,700.00 crore which is significant compared with Eleventh Plan Outlay of Rs. 84,943.00 crore).

1.3.6 Indian Higher Education- Challenges

India is the largest democracy characterized by highly diverse population of about 1.2 billion which represents 17% of the world population. With 70% of the rural population, 60% adult literacy rate (lower in women and minorities) and below poverty line, the country has a large rural-urban divide, poor-rich divide and male-female literacy variation. In India, education is provided by institutions of which 40% are government supported. With 1.5% of the population growth rate, the education sector especially higher education is under huge pressure to provide quality education at affordable price. Presently Indian Higher education third largest in terms of number of students it caters to is faced by challenges some of which can be specified as:

Demand and Supply gap

The expansion of higher education in terms of increase in number of students in public universities which have comparatively less tuition fees has led to transformation of these institutions into mega universities. For example, Calcutta University has 200 colleges affiliated to it and has 7 lakh students enrolled. Therefore, increasing demand for higher education has created additional burden on public universities which already have limited resources. Also, there is an increasing competition to get admission to these universities. For example, Delhi University, one of the most prestigious institutions in India has about 50,000 seats each year, this may seem to be quite large but it is a very small fraction of the number of applications received by the university. Shri Ram College of Commerce, affiliated with Delhi University has just 400 seats and gets nearly 28,000 applicants every year (Flintoff, 2012). This implies less than 2 percent of the applicants get admission, an acceptance rate far lower than Harvard's. Even for the best students, competition in India has grown formidable. Delhi University’s cut-off scores at its top colleges was a near-impossible 100 percent in some cases in 2011 (Flintoff, 2012). The Indian Institutes of Technology, the most revered institutions for engineering and technology courses, have an acceptance rate of less than 2 percent which is admitted from a pool of approximately 500,000 candidates qualified to take the entrance exam.
With about half of India's 1.2 billion people under the age of 25 and the growing capacity of Indian middle class the country's few selective universities are under pressure. Thus, huge chunk of Indian students leave the country or pursuing higher education abroad. In 2011, Indians were the second-largest foreign student population in USA, following the Chinese, with almost 105,000 Indian students in the United States in the 2009-10 academic year (Najar, 2011). Earlier only wealthy Indian families have been sending their children to the best American schools but now students from middle-class families have also been joining their fellows in universities abroad. With public universities operating beyond their capacity and their incapability to admit increasing number of students, large number of private universities have emerged. India has over 50% of its students enrolled in private higher education institutions (Kapur & Crowley, 2008). These private institutions meet the increasing demand for higher education which public universities cannot. National Knowledge Commission was formed on 13th June, 2005 in order to develop policy guidelines and reforms for development in key economic sectors- education, science and technology, agriculture etc. The Commission pointed towards a deep crisis in IHE and recommended revamp of HEIs, increase in investment in higher education and improvement in quality of higher education in India. As a result IHE has expanded further to include 8 new IITs, 7 IIMs, 5 IISc and 30 Central Universities (MHRD, 2013). But these numbers are not enough to fill the demand and supply gap for HEIs in India.

Quality of higher education

Though the growth numbers have been impressive but the quality of higher education poses a dismal picture especially for professional courses like engineering/technology and management. Not a single Indian university featured in the list of top 200 universities in Times Higher Education World University Rankings (Morgan, 2013). Even IITs, the highly revered institutions in India lingered at below 250 ranks. Important subjects- medicine, law, economics and education find no place in the global rankings. So far only 31% of the universities and 14.5% of the colleges have been accredited by NAAC, representing the grim situation of quality of higher education provided in the country. Also, the course curriculum and teaching pedagogy are not devised according to the requirements of the industry resulting in jobless graduates. NASSCOM posited that out of the total engineering graduates in the country, only 25% are employable in the IT industry.
(Deloitte, 2012). Furthermore, the IHE system has not been flexible to the demands of the changing environment. It still propounds rote learning with little or no focus on skill development and research, undermining the role of education in development of critical thinking and analytical skills in the students. In addition to the infrastructural facilities there are problems in the fundamental requirement for excellence in education i.e. the practice of quality teaching which is also dampening the growth of quality higher education. Teaching at higher education level is largely flawed with instructive and passive lecturing. Although computer technologies are integrated into lectures but due to limited class time and pressure to complete the course on time and to improve the student grades, teachers adopt usual lecture style with focus on dissemination of information (Narayan, 2005). Notion of what teachers should accomplish during the course of a given class have also remained unchanged over the years. The poor quality of higher education in the country has led to the emergence of corporate universities. These are institutions set up by organizations which provide in-house training and development of human capital. The concept of corporate institution has been exemplified by Infosys (an IT company of Indian origin). Facing dearth of talent, the company started a step by step recruitment process screening applicants at various stages. For example, in 2006, Infosys screened one million applications and selected 1, 60,000 applicants for a common test measuring their analytical and problem solving ability. 80,000 candidates who cleared the test were interviewed and finally a handful of candidates were selected for jobs. These newly recruits undergo 18-weeks of rigorous training program in the company’s campus to make them ready for the job they undertake. However, such corporate institutions lose importance in the highly dynamic labor markets which is characterized by high employee turnover (Kapur & Crowley, 2008). The need of the hour is to enable students master the course in a manner that they become capable of utilizing the knowledge gained from the course in the research, development of innovative methods and techniques and thus become engines of growth.

**Paucity of funds**

Government expenditure on higher education has formed a meager 1% of GDP (Figure 1.8). State universities do not get funds proportionate to the student strength they cater to i.e. they provide education to 38.6% of total enrolments but major chunk of funds for education goes to central universities leaving state universities largely dependent on state
government for funds. State governments, on the other hand, with the limited finances are generally unable to meet huge financial requirements of the universities. Public expenditure on education as % of GDP in India is less as compared to other Asian countries like Malaysia, Nepal and far behind the developed countries like US, UK, Australia, and New Zealand etc. (Table 1.5).

Table 1.5: Public spending on education in various countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Public spending on education as % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>3.3</td>
</tr>
<tr>
<td>China</td>
<td>3.5</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2</td>
</tr>
<tr>
<td>Nepal</td>
<td>4.7</td>
</tr>
<tr>
<td>Malaysia</td>
<td>5.1</td>
</tr>
<tr>
<td>Brazil</td>
<td>5.8</td>
</tr>
<tr>
<td>Mexico</td>
<td>5.2</td>
</tr>
<tr>
<td>Singapore</td>
<td>3.2</td>
</tr>
<tr>
<td>Germany</td>
<td>5.1</td>
</tr>
<tr>
<td>USA</td>
<td>5.4</td>
</tr>
<tr>
<td>UK</td>
<td>6.2</td>
</tr>
<tr>
<td>Canada</td>
<td>5.5</td>
</tr>
<tr>
<td>Australia</td>
<td>5.6</td>
</tr>
<tr>
<td>New Zealand</td>
<td>7.2</td>
</tr>
</tbody>
</table>

Further, public spending on higher education in India is quite low at 0.6% of the GDP as compared to 2.7% in USA. Further, Spending on R&D by India as part of global R&D spending is just 2.1% whereas in China it is 12.5%(Deloitte, 2011). The end result is a series of events, where shortage of funds leads to poor quality of education, no valuable contribution through research and eventually, decreases in financial grants available to universities.

**Shortage of quality teachers**

Resource constraints not only financial but also human may impede the pace of progress in IHE sector. Indian universities are facing 30 to 40% shortage of faculty especially for the technical courses. The institutions have faculty student ratio far from the desirable standard of 9:1 for premier institutes like IITs and 15:1 for other engineering colleges (Shortage of teachers in institutions of higher learning, n.d.). For example, student-teacher ratio in IITs is 11:1 (against 9:1) and in Delhi University’s Delhi College of Engineering (DCE) it is 20:1 (against 15:1) (Shortage of teachers in institutions of higher learning, n.d.). A shortage in teaching staff often leads to unfinished or hurried course curriculum and inadequate attention to individual student needs. Attending to the growing shortage of teachers, UGC constituted a Task force on faculty shortage and design of performance appraisal system in July, 2011 under the Chairmanship of Sh. Sanjay G. Dhande (UGC, 2011). The task force posited that rapid expansion of IHE was not matched by desirable quality as well as quantity of inputs especially of faculty resource resulting in Q2 or Quality-Quantity problem. Also, there is rampant practice of hiring ad-hoc faculty members in both public and private institutions. It was pointed that if such trends continue, India would not be able to achieve world standards in higher education and a strong reaction by teachers against their exploitation as a result of ad-hoc and irregular appointments is imminent. The report of the taskforce identified various reasons for shortage of teachers:

i. Massive expansion in higher education with the large number of new institutions both in public and private arena.

ii. Poor supply of PhDs and qualified teachers.

iii. Ban on recruitment by most institutions.

iv. Lack of flexibility in recruitment process.
v. Procedural delays- infrequency in recruitment exercise.
vi. Communication gap.
viii. Absence of quality consciousness among a large number of applicants: they get rejected, dejected and create obstacles.
ix. Court cases and legal injunctions causing posts to be kept vacant over long periods of time.
x. Absence of a common forum to recruit faculty for various institutions together and frequently.
xi. Over consciousness in recruitment: of no provision later to root out the incompetents.

The task force made an important recommendation of establishment of Faculty Induction and Development Cell (FIDC) in every academic institution which should be responsible for ‘all matters relating to recruitment, appraisal, promotion and other HRM functions’ (UGC, 2011).

Globalization and higher education

As the boundaries across the globe diminish due to the surge of Globalization, Indian Universities will be left open to compete with their foreign counterparts. Fostering excellence of educational institutions especially the higher education ones, can be an important factor in our nation’s transition from developing to developed society. Importance of higher education in development and competitiveness of a nation is evident from the fact that higher education and training is one of the factors constituting a Global Competitiveness Index measured and compiled by World Economic Forum (2013). However, out of 144 nations, India stands at 59th position in global competitiveness for 2012-13 and on higher education and training dimension it ranks poorly at 107th position World Economic Forum (2013). Thus, though IHE sector has been buoyant recently, there are many roadblocks in its journey to become competitive in the global environment. The WTO regime with competence as its fundamental principle of triumph in international operations necessitates India to develop its excellent potential in higher education and training facilities and gear itself to launch the Indian brand of education. Globalization offers a both challenging and
excellent opportunity for India to establish the nation as global hub of education and scientific research.

Therefore, as the country opens its boundaries to the world, Indian Universities will be left open to compete with their foreign counterparts. Government is ambitiously pursuing its goal of liberalization of higher education sector and with the approval of Foreign Educational Institutions (Regulation of entry and operations) Bill, 2010 India has opened up its gates for foreign universities to establish their campuses in India. This implies advent of better quality of education in the country and students will have greater choices regarding institutions. Also, foreign institutions like Oxford, Cambridge, Harvard, Duke, etc. which have already proved their mettle in the field of education, are likely to be preferred by the students. The repercussions of operation of foreign institutions in India will be greater competition for the Indian universities. And for the sector already struggling with issues like poor quality of higher education, lack of qualified faculty, paucity of funds, poor infrastructure, outdated curriculum, bureaucratic and government interference, antiquated pedagogical methods, outdated finance procedures in securing and utilizing research funding, lack of targeted training and orientation programs for faculty etc., the competitiveness of Indian universities under the present circumstances is doubtful.

1.3.7 Indian Higher Education - the way ahead

A step towards making Indian universities more competitive as compared to their foreign counterparts is ensuring greater autonomy to the universities (Menon, 2013). Autonomy implies freedom to function without external interference or influence. Greater autonomy entails universities to be independent not only functionally but also financially. Thus universities will have to become self-sufficient in generating funds and reduce their dependence on public finances. In addition to increase in tuition fees, other sources of funds that universities can explore are corporate funding of research, providing consultancy services to the industry, getting more industry sponsored projects, building up a strong association of its alumni, providing research & development services that cater to the needs of Indian industry i.e. providing industry with indigenously developed technology and products thereby reducing its dependence on other nations. Freedom to function will enable universities to independently devise industry-responsive curriculum, change pedagogy and
method of evaluation, no interference in selection of teachers, freedom in funding research activities.

The scope of autonomy is not limited to freedom to function but an element of accountability is always associated with it. If an institution is free to function with no bureaucratic or political interference, it is also solely accountable for its actions. Therefore, with greater autonomy comes greater accountability. Furthermore, the UGC (2011) task force on faculty shortage and design of performance appraisal has cited no provision to root out the incompetent teachers, indicating that the traditional notion of permanent jobs in the public universities may fade with increasing competition and autonomy (UGC, 2011). Greater accountability, performance based pay & promotion and the policy of firing the nonperformers may be on the anvil.

Therefore, in the globalized world full of challenges and competition, Indian universities will have to devise cost effective ways of providing education. Universities are now not merely the institutions disseminating knowledge but are business organizations providing quality service (i.e. education) to its customers (i.e. students). This calls for teachers to assume greater responsibilities expanding the traditional role set of a teacher. There is an increasing pressure on educators to manage multiple roles (mentor, researcher, consultant, project leader, administrative roles etc.). Teachers have a central and a tough role to play wherein they have to move out of their long-established mindset of permanent pensionable jobs with little or no attention to effective teaching performance. Furthermore, teachers will have to continuously upgrade their skill set in order to survive in the dynamic higher education environment. The educators will need to develop skills to meet the challenges and changes in the universities which will demand a greater involvement and excellence in their jobs.

1.4 Role of Indian Youth in nation’s development

“It will be a dividend if we empower our young. It will be a disaster if we fail to put in place a policy and framework where they can be empowered.” - Kapil Sibal

According to UNESCO, “Youth is best understood as a period of transition from the dependence of childhood to adulthood’s independence and awareness of our interdependence as members of a community”, (http://www.unesco.org/new/en/social-and-human-sciences/themes/youth/youth-definition/)
Youth is more precisely defined in terms of age group specifically for relating youth with education and employment. Thus, youth is often defined as the range beginning with the age at which a person completes his/her compulsory education and the age at which his/her education culminates into first employment. There are variations in the definition of youth across agencies. For example, United Nations (UN) defines youth as the people between age group of 15-24 for ensuring statistical constancy across regions. According to UN-HABITAT (2013) report, the draft National Youth Policy of 2012 defines population in the age group 16-30 years (Government of India 2012) as youth since this age group is largely heterogeneous i.e. youth in age group of 16-20 years have adolescent needs, those in 21-25 age group are inclined towards attaining education and employment and those between 26-30 years seek a professional and personal life (marriage). In the report ‘State of the urban youth India, 2012’ by UN-HABITAT (2013), youth refers to population in India falling under the age bracket of 15-32 years.

Youth in India- Demographic profile

With a population of over 1.2 billion, India is the second most populated country in the world after China. It is home to 17.5% of the world population. The country is projected to witness a phase of major demographic transition i.e. decline in the population growth rate from 1.6% in 2001-05 to expected 0.9% in 2021-25 and expected decline in total fertility rate from 2.9 in 2001-05 to 2.0 2021-25 (UN-HABITAT, 2013). These statistics indicate a diminution in the proportion of population below 15 years and increase in working age group (15-59 years) population as indicated in Table 1.6. It clearly indicates a gradual increase in the working age population over the period of 2001-2026 and a simultaneous decrease in population in the age group of 0-14 years.

<table>
<thead>
<tr>
<th>Age group</th>
<th>2001</th>
<th>2006</th>
<th>2011</th>
<th>2016</th>
<th>2021</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>35.4</td>
<td>32.1</td>
<td>29.1</td>
<td>26.8</td>
<td>25.1</td>
<td>23.4</td>
</tr>
<tr>
<td>15-59</td>
<td>57.7</td>
<td>60.4</td>
<td>62.6</td>
<td>63.9</td>
<td>64.2</td>
<td>64.3</td>
</tr>
<tr>
<td>60+</td>
<td>6.9</td>
<td>7.5</td>
<td>8.3</td>
<td>9.3</td>
<td>10.7</td>
<td>12.4</td>
</tr>
</tbody>
</table>

Presently, India’s youth population i.e. no. of people in the age group of 15 to 35 constitutes more than 50 percent of the total population. According to Aiyar & Modi (2012), youth population (15-32 years) in India constitutes 35 per cent of the urban population and 32 per cent of the rural population. The youth population in the age-group 15-34 years is expected to increase from 353 million in 2001 to 430 million in 2011 and then continue to increase to 464 million in 2021 and finally to decline to 458 million in 2026. This category of the population is represented by the students, workers, farmers, employees and educated and uneducated professionals including employed as well as unemployed. Thus, there is a great young force in the country brimming with energy and enthusiasm.

Furthermore, proportion of Indian educated youth varies across different levels of education as well as in rural and urban categories as indicated in Table 1.7.

There is a greater proportion of non-literate youth in rural (22.6%) than in urban (10.1%) region. Also, proportion of educated youth in secondary, higher secondary, graduate and postgraduate level is less in rural population as compared to urban population.

Table 1.7 Educational attainment of employed youth (15-32 years) in %

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Urban</th>
<th>Rural + Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not literate</td>
<td>22.6%</td>
<td>10.1%</td>
<td>19.3%</td>
</tr>
<tr>
<td>Just literate</td>
<td>10.5%</td>
<td>5.8%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Primary</td>
<td>18.3%</td>
<td>13.0%</td>
<td>16.9%</td>
</tr>
<tr>
<td>Middle</td>
<td>23.4%</td>
<td>20.4%</td>
<td>22.6%</td>
</tr>
<tr>
<td>Secondary</td>
<td>13.5%</td>
<td>16.7%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Higher</td>
<td>7.6%</td>
<td>13.5%</td>
<td>9.1%</td>
</tr>
<tr>
<td>secondary/Diploma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate</td>
<td>3.3%</td>
<td>15.2%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Post Graduate</td>
<td>0.8%</td>
<td>5.2%</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

This demographic transition brought about by changing age structure and characterized by greater working age population has been termed as a ‘Demographic Dividend’ by the economists and it has been propounded that “since 1980s, India’s growth of about 2% can be attributed to the growing working age population” (Aiyar & Mody, 2012). Youth population forms an integral part of working age population and is imperative for fuelling the economic progress.

**Youth - Role in Economic Growth**

With the dawn of twenty first century, Asian continent has emerged a strong industrial and economic hub of the world. Abundant labour at cheap prices has become the USP (unique selling price) of countries like China, Bangladesh, Indonesia and India. Among the various Asian nations, India has an edge due to its well educated English speaking workforce and it is a nation with the largest young population in the world with 70% of country’s population below the age of 35 years. As specified in the ‘Report of working group on adolescent and youth development’, (Ministry of Youth Affairs & Sports, 2011), the initial figures of the census 2011 states the population of youth including adolescents in India to be around 550 million. Also, when the developed countries are facing problem of population ageing, median age in India is 26.6 years (less than global median age of 29 years) i.e. 50% of India’s population is less than 26 years. By 2020, average age of an Indian will be 29 years, a US national will be 40 years, a European will be 47 years and that of Japanese will be 46 years. Thus, India will be ageing at a much lesser pace and while countries might be struggling with availability of manpower, India will be home to a booming population of youngsters. According to International Labour Organization, by the year 2020, 116 million people in India in the age group of 20 to 24 years will be prospective workers while China will have only 94 million (Rajendram, 2013). These numbers present an excellent opportunity for India in the competitive and dynamic global economic scenario. The demographic dividend in terms of exceptionally large brigade of youngsters needs to be nurtured to meet the scarcity of skilled workforce in the future and the zealous and vibrant youthful energy needs to be channelized for development of the nation.
India, a signatory to the Millennium Development Goals must recognize the vital role of the youth of the country for accomplishing the Millennium Development Goals/MDGs (Box 1.2).

In addition to contributing towards achievement of MDGs, role of Indian youth is critical for economic growth because:

i. A young workforce implies more innovative brains and according to Ranjan Bandyopadhyay, global HR head of business process outsourcing for TCS, greater proportion of youth means India would be able to “better leverage technology and increase efficiency” (as cited in Harijani, 2012).

ii. The "demographic dividend" has presented India an opportunity in terms of a huge working age population which can be harnessed to fortify Indian economy. IMF in 2011 cited the potential of workforce to add 2 percentage points to India’s annual growth rate over the next two decades (Rajendram, 2013).

iii. Greater youth population influences higher consumption. For example, according to Sunil Devmurari, country manager for India at Euro monitor consumer spending in India has doubled from $549 billion in 2006 to $1.06 trillion in 2011 and with two hundred and fifty million people set to join India's workforce by 2030 the nation would experience be an increase in disposable income and hence increase in domestic consumption which would in turn boost economy (as cited in Harijani, 2012).

iv. In the knowledge based global economy, the energy, capabilities, skills, intelligence and enthusiasm of the youth can be channelized to generate a pool of scientists, technocrats, managers, entrepreneurs, environmentalists, teachers, researchers and other professionals. The knowledge accumulated in the skilled workforce/professionals can be the deciding factor in India’s success in 21st century.

However, the youth in India is facing a serious problem of educated unemployment i.e. the skills learnt by students in the universities do not match the quality standards demanded by the job market. This results in a young generation which is overqualified but underemployed. This signifies that if the large youth population is not provided with
adequate opportunities to employ their skills, the extraordinary opportunity offered by demographic dividend would be rendered waste.

As specified in UN-HABITAT (2013), employment rate (number of unemployed persons per 1000 citizens in the workforce) between 2004-05 and 2009-10 has declined from, 38 to 28 for urban men, stable at16 for rural men and 69 to 57 for urban women 18 to 16 for rural women. On the one hand it may seem that unemployment has decreased but unemployment rates in case of rural male youth have increased from 39 to 47, of rural female youth from 42 to 46 between 2004-05 and 2009-10 while unemployment rate for urban male youth has declined from 88 to 75, and for urban female youth from 149 to 143 over the same period. Further, the unemployment rate has been found to be lower for illiterate as compared to educated youngsters. It has been stated that youth with “undergraduate or higher degree had an unemployment rate of 63 as compared to just 3 for the illiterate in 2009-10. In other words students with at least one college degree are 21 times likelier to be unemployed than the illiterate”, (UN-HABITAT, 2013).

Industrial organizations have pointed out that graduates including engineering and management are largely unemployable and the wide deviations between job requirements and the skills imparted in educational institutions. To quote Pooja Gianchandani, director and head of skill development at the Federation of Indian Chambers of Commerce and Industry,

“When lots of MBAs come out of graduate school, they may have an understanding of organizational behavior and management practices learned in class, but they can’t actually get work done in the real world told this writer recently. “That makes them unemployable or forces them to settle for jobs not ideally matching their qualifications on paper,”, (UN-HABITAT, 2013).

Underemployment has been further fuelled by an explosive growth in the number of engineering and management schools where quality has been compromised. According to Bakul Dholakia, former director of the Indian Institute of Management Ahmedabad, “Unlike a BA or BSc, professional schools are all about jobs. If a school offering professional education is unable to get students jobs, it has failed”, (as cited in Kasturi, 2012).
1.5 Role of teachers in development

Excellence in education is an outcome of excellence in Teaching. Education is a process of imparting intellectual, moral and social instruction in the form of a formal process encompassing training, or instruction for a particular purpose (as cited in Khan & Sarwar, 2011). In the changing Indian higher education scenario, Teachers and academic communities have a central role to play - mentoring, guiding, exploring, integrating information, developing learners’ identities through role modeling and facilitating group activity. One of the major goals of an education system is to provide quality education and we know excellence in education can be achieved only through excellence in teaching. In Bloom’s (1972) terms, what teachers are influences what teachers do; what teachers do, in turn, influences what and how students learn. There is a shift in the focus of higher education towards student centered learning and objectives of teaching have also extended beyond instructional teaching to teaching students how to learn i.e. fostering the notion of ‘learning how to learn’. In a developing country, the institutions of higher education especially universities are entrusted with the role of educating the citizens and produce scholars who in turn contribute towards human development. Teaching fraternity embody the ethics and optimism of the nation and they shoulder the responsibility and accountability of professional, moral and ethical development of youth to ensure a societal transformation in India which propounds equality, tolerance for diversity and social justice to every citizen. Teachers’ role in development of a nation is multi-faceted and teachers contribute towards progress of a country through

i. Achieving excellence in education

ii. Development of professionals in various disciplines

iii. Human Resource Development

iv. Achievement of MDGs

v. Offering consultancy to industry, government and social bodies.

vi. Promoting Research & Development

vii. Inculcating moral and ethical values in the future generation.
Thus, contribution of teachers towards development of a nation lies in quality teaching which is indispensable component of human resource development through guiding a generation of youngsters who would in future assume the professional roles in various disciplines including doctors, engineers, educators, scientists, artists, administrators & policy makers and last but not the least politicians and policy makers. Role of teachers in the development of a nation lies in its ability to empower people, provide employment, enhance individual as well as national income, social upliftment etc. Teachers’ role in achieving Millennium Development Goals (Box. 1.2) is crucial because it is through them that Education for All can be achieved. Teachers are the guiding force for research and development in the universities. With the increased collaboration between industry and universities, teachers are also embracing the role of consultants. Eventually, teachers hold the power to develop right attitudes and moral and ethical values in the youth of the country and it is through this power that they have the ability to prevent the youth of the nation from transcending into unethical activities and even terrorism. Further, the reforms in education system/institutions will be successful only when embraced by the teaching fraternity and transmitted to the students through the practice of teaching.

Thus, there is a dire need for quality and effective teaching for enhancing the quality of higher education and indirectly sustaining India’s development.

1.6 Effective Teaching- Competencies

There has been a fundamental shift in employment trends in Indian economy. Moving away from agrarian economy, it is services, which is responsible for contributing 56.9% towards GDP (Table 1.1.). Globalization has been responsible for generation of new professions and along with other sectors of the economy, higher education sector has also been internationalized and doors have been opened for foreign universities. In knowledge based global economy there is a greater demand for non-routine cognitive and interpersonal skills. University or tertiary education is vested with the responsibility of training students for employment must ensure that students are equipped with requisite knowledge, skills, and attitudes and values. In their endeavor to develop employable skills in their students, universities all over the world are aggressively establishing linkages with business and industry. Teaching community plays the most critical role by rendering their services
towards development of adequate and appropriate talent for the industry. Higher education teachers can no longer limit themselves to transmission of subject knowledge and improved student performance in exams. Their responsibility now extends to ensuring successful placements of their students and good performance as employees, developing students into entrepreneurs and guiding research and development in the university premises and so on. Further, the youth of the nation is now more aware of its rights to equal teaching and learning opportunities, fair evaluation and education which can help them fetch jobs.

The highly competitive higher education system presents an increasingly demanding environment for teachers to function. The demand for assuming multiple roles, increasing responsibilities, performance pressures in terms of improvement in student learning and placements and self-growth through publication of research work (considered the most critical part of API) and last but not the least teachers are now answerable for their performance to the students and have increased accountability. These changes require teachers to build multiple competencies in addition to subject knowledge.

Student teachers (students undergoing teacher training) consider personal competencies like confidence, intelligence, friendliness, politeness, patience, honesty as the top five competencies followed by pleasant personality, energetic, and positive attitude towards weak students and in terms of professional competence, student teachers prefer subject knowledge, effective communication skills, punctuality, discipline and an understanding of child psychology, but competencies like neat and smart dressing, humorous, not vindictive and promoting national integration have been cited as least desirable (Bhargava & Pathy, 2011).

Student engagement/involvement lies at the heart of effective teaching. The basic aim of teaching is to promote learning. Thus a teacher must adopt a holistic pedagogy which recognizes differences in student needs and abilities and gives due consideration to engaging students in the learning process.

Delaney et al. (2010) identified 9 characteristics listed by 17000 students at Memorial University of New Foundland as imperative for effective teaching in both on campus and distance educational courses. These characteristics were:
i. Respectful
ii. Knowledgeable
iii. Approachable
iv. Engaging
v. Communicative
vi. Organized
vii. Responsive
viii. Professional
ix. Humorous

Hwang (2006) proposed that effective teaching requires Emotional Intelligence competencies (Figure 1.10). He pointed out four competencies of effective teachers which form the core of EI construct.

**Figure 1.9 Competencies of effective teachers**

Interpersonal Competencies

These competencies equip teachers to develop a mutual and collaborative relationship with their students rather than only a professional association. Teachers competent at interpersonal skills adopt an open communicative style and they know when to push critique or set high expectations for students.

Intrapersonal Competencies

Characteristics of effective teachers are good communicators, pleasant, friendly, warm, enthusiastic & excited about teaching, interesting, sensitive to students’ needs, patient, possess a sense of humor and recognize students as individuals.

Leadership competencies

- Realize and honour students’ interests.
- Unleash the strengths, talents and passions of students.
- Passionately teach students the knowledge, skills and strategies
- Build on the students’ unique strengths.
- Listen to the needs and hopes of the students

Self-Management

Teachers adept at self-management are capable of enhancing students’ academic performance.

Therefore, effective teachers must possess EI competencies in order to continuously improve their performance and align themselves with the challenges posed by the competitive and dynamic higher education environment in the country.

1.7 Teaching Effectiveness

Meaning

Teaching has been considered as an interactive process aimed at providing students with opportunities to learn. Effective teaching implies the extent to which the practice of
teaching has been able to meet its goals. Successful teaching so far depended largely on how well a teacher enables impartation of concepts from the text books. Its scope has been limited to student learning measured by the examination results which test students’ ability to cram and put forth the textbook ideas onto the paper. In the recent times there has been a change in what constitutes effective teaching. With the universities emerging as business organizations, teachers as service providers and students as customers, teaching methodology needs to be customer or student centered. The scale of successful teaching extends beyond the explanation of the textbook content and concepts. The developing economy and dynamic socio-economic environment calls for a radical change in the teaching framework. The span of teaching has shifted from mere transmission of ideas, promotion of rote learning and passive mode of instruction, towards teaching for a greater goal i.e. developing students into independent, self-directed, self-motivated and self-critical learners who accept different perspectives and have strongly developed analytical and higher order thinking skills. Student expectations regarding the characteristics of effective teachers have also stretched to include attributes like respectful, trustworthy, approachable, empathetic, fairness, etc. (Faranda & Clarke III, 2004; Delaney et al., 2010).

1.7.1 Effective teaching- measurement

Teaching effectiveness (TE) is mainly measured in terms of how far a teacher has been able to achieve the goal of enabling students understand the course content and a teacher’s behavior during that course. The ways to evaluate effective teaching have evolved along with the progression in teaching. Teachers are now the service providers, imparting education to their customers i.e. students. In a business organization, the effectiveness of a service is measured by the feedback from the customers who avail it, in the higher education sector, effectiveness of a teacher is measured through student satisfaction and this has become an integral part of professional education courses which aim at making students ready for employment in the industry. However, teaching is a highly complex process to be narrowed down to a few parameters. Researchers have established the multidimensional nature of teaching effectiveness (Marsh, 1987; Cashin, 1995). It has been contended that student ratings are multi-dimensional i.e. they rate different dimensions of teaching. No single student rating tool provides all-inclusive data on effective teaching. In other words a complex concept as teaching effectiveness cannot be measured with a single or a set of
criterion (Marsh, 1987). Thus, there are various methods for measuring TE— student learning, student comments, alumni ratings, ratings of teaching by outside observers, peer reviews, student feedback etc. Berk (2005) reviewed 12 potential sources of teacher evaluation namely –

1. Student ratings
2. Peer ratings
3. Self-evaluation
4. Videos
5. Student interviews
6. Alumni ratings
7. Employer ratings
8. Administrator ratings
9. Teaching scholarship
10. Teaching awards
11. Learning outcome measures
12. Teaching portfolios

Since the higher education is now more student-centered and students are the eventual recipients of quality teaching, they are the most obvious choice for providing ‘customer feedback’ on characteristics of effective teachers. Hence, student ratings are the most commonly used measure of teaching effectiveness so much so that evaluation of teaching and student ratings are considered to be inseparable.

Students’ evaluation was first formally conducted in 1920s in US by H.H. Remmers, students at the University of Washington were the first to fill out student rating forms and the first research studies on student ratings were published at Purdue University (as cited in Kulik, 2001). Some researchers contend that student rating is a better term than student evaluation because evaluation includes interpretation of information as well whereas rating refers to the data we have gathered irrespective of its interpretation. Thus, it coincides with the fact that a single source of data is not sufficient enough to give a comprehensive picture of teaching effectiveness (Cashin, 1995).
The utility of student ratings is wide in scope ranging from the obvious evaluation of teaching practice to helping students in course selection. Student ratings serve multiple purposes such as-

i. It provides feedback to faculty regarding the effectiveness of their teaching practice.

ii. It is a valuable tool for improving course structure and teaching methodologies.

iii. The data from student ratings are used for personnel decisions i.e. promotions, merit raise, recruitment and selection of faculty, in school accreditation reviews, assigning teachers to courses, etc.

iv. It serves as a guide for students in the decision about course selection.

v. It provides a platform for research in teaching.

Student ratings have been assigned different terms such as Students’ Evaluations of Educational Quality (SEEQ) (Marsh, 1987), Students’ Perceptions of Teaching Effectiveness (SPTE), Student Evaluation of Teaching forms developed by various universities etc... Nevertheless, the research lacks consensus on the dimensions for measuring teaching effectiveness and there is no single set of factors which can be considered as standard for obtaining an all-inclusive data on teaching effectiveness. Such a variation in construct of instructor evaluation factors is due to disparities in selection of items for the SET forms and in opinion regarding number of items by the researchers-

i. Choice of Items- due to complex nature of teaching, different evaluators stress upon different factors for evaluating teaching performance e.g. factors may be different for different courses i.e. science and humanities thus, limiting the scope of applicability. At the same time, selection of items varies according to the purpose of collecting students’ evaluations.

ii. Numbers of items- shorter SET forms are favoured due to ease of handling and obtaining accurate information. But this goes against the multidimensional nature of students’ evaluation which requires the forms to be long enough to be comprehensive.

iii. Variation in factor analysis procedures adopted by different researchers (Marsh, 1987).
One of the most widely used and researched instrument for measuring teaching effectiveness was developed and tested by H.W. Marsh in 1987. Marsh’s Students’ evaluations of Educational Quality also known as ‘SEEQ’ measures teaching effectiveness on nine factors namely-

i. Learning/Value
ii. Instructor Enthusiasm
iii. Organization
iv. Individual rapport
v. Group Interaction
vi. Breadth of Coverage
vii. Examinations/Grading
viii. Assignments/Readings
ix. Workload/Difficulty

Marsh’s SEEQ is widely applicable. The instrument can be used for different courses at graduate and undergraduate level and for a country in any part of the world.

Later Marks (2000) utilized confirmatory factor analysis to recognize five underlying factors in students’ evaluations:

i. Organization
ii. Workload/Difficulty
iii. Expected/Fairness of grading
iv. Instructor liking/Concern
v. Perceived learning

Further, Jackson et al. (1999) reviewed SPTE involving more than 7000 university classes. They shortlisted 6 primary and 2 second order factors. The primary factors were- rapport with students, course value, course organization and design, fairness of grading, course difficulty and workload. The secondary factors were general quality of teaching and course demands.

1.7.2 Teachers as Leaders

The idea of teachers as leaders emanates from the conception of classroom as an organization. A classroom can be considered as a learning organization, an organization which facilitates learning of all its members and continuously transforms itself. Various
researchers have also supported the correspondence between a classroom and an organization and organizational leadership and instructional leadership. The notion of teacher leadership arises from the conception of a classroom as an organization with teacher as the leader and students as followers (Pounder, 2008). A learning organization is characterized by leaders as role models who challenge the existing framework and methods of doing work, empower followers, motivate and inspire followers to think out of the box, promote innovation and creativity, create an environment of trust and respect where people are free to express their ideas and lastly leaders are considerate for their followers’ developmental needs. The idea of teachers as leaders was put forth by Katzenmeyer and Moller (1996) in the first edition of their famous book titled, ‘Awakening the sleeping giant: Leadership development for teachers’. They cited the role of teachers in bringing a revolution in the social reform process through practice of leadership in the schools. A teacher-leader’s functions are based on concept of leadership as practiced in organizations such as facilitating learning, managing conflict, disseminating information, allocating resources, and empowering learners, motivating students and aiming for high marks in student satisfaction (Chory and McCroskey, 1999). As described by Pounder (2006), the Hay Mc Ber report on teaching effectiveness in schools in UK in 2000, discovered 3 significant factors which affect student progress- teaching skills, professional characteristics and classroom climate where professional characteristics embrace attributes that correspond to teacher leadership behavior. Frost and Roberts (2009) adopted the term ‘extended professionality’ for practice of leadership by teachers and it indicates that teacher leaders are morally driven and embrace leadership behavior in the exercise of their duties. It promotes creation (rather than sheer reception) of knowledge by teacher leaders.

The concept of teacher leadership has developed over a period of time and its evolution is marked by four stages (Pounder, 2006). The first wave, which started in early 1980s, was characterized by creation of managerial and administrative roles like department head, head teacher and union representative as the teacher-leadership roles. These positions were merely namesake where teacher leadership was not part of teaching function and teachers were not empowered to improve an institution’s teaching effectiveness. The second wave from mid to late 1980s, focused on the instruction and limited teacher leader roles with positions such as team leader and curriculum developer. Thus pre-packaged materials were
provided to classroom teachers for implementation. The third wave beginning in late 1980s and applicable till present, integrated the notions of teaching and leadership. It vests the instructional and leadership functions in the realm of teachers’ role, expanding their responsibilities and making them accountable for their actions. A fourth wave is on the horizon which focuses on transformational classroom leadership as one of the most distinguishing feature of a teacher leader and it encompasses both the school and university levels (Pounder, 2006).

The concept of teacher leadership had formed an integral part of educational reform movement in US and UK. In 1983 and 1986 major reports like ‘A Nation at risk’ by National Commission on Excellence in Education and ‘A Nation prepared: Teachers for twenty first century’ by Carnegie corporation respectively highlighted the need for bolstering the teaching profession in USA (as cited in Frost & Roberts, 2009).

Teacher leadership theory attempts to apply the organizational leadership concepts to the educational institutions in general and conduct of teachers in particular. Various researchers have defined teacher leadership in many ways (Box 1.4).

### Box 1.4 Definitions of Teacher Leadership

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<tbody>
<tr>
<td>“Behaviors willingly undertaken by teachers which serve to improve the quality of education for students, to enhance the practice of fellow teachers, to alleviate the leadership responsibilities of the principal, and to create a more enriching educational environment throughout the school” (DeHart, 2011).</td>
</tr>
<tr>
<td>“The behavior that facilitates principled pedagogical action toward whole school success. It derives from the distinctive power of teaching to shape meaning for children, youth and adults. It contributes to enhanced quality of community life in the long term” (Andrews &amp; Crowther, 2002).</td>
</tr>
<tr>
<td>“Essentially an ethical stance that is based on views of both a better world and the power of teaching to shape meaning systems” (Crowther and Olsen, 1997).</td>
</tr>
<tr>
<td>“Teachers who lead within and beyond classroom, influence others toward improved educational practice and identify with and contribute to a community of teacher leaders” (Katzenmeyer and Moller, 2001).</td>
</tr>
</tbody>
</table>
Though different, these definitions converge on few common areas i.e.

i. Teacher leadership is a collectivist approach rather than individualistic.

ii. It emphasizes mutual growth and development leading to a win-win situation for all stakeholders i.e. principals, department heads, management, teachers, students and the institution.

iii. It demands role of teachers as leaders within and beyond the boundaries of classrooms.

iv. Teacher leadership focuses on objectives to improve teaching effectiveness, enhance student learning and contribute to the overall success and development of the educational institution.

Therefore, teachers as leaders have extended duties and responsibilities and have greater expectations. Effective teacher leaders are transformational in their conduct in the classroom as well as beyond it. Leadership in the context of teaching generally implies adoption of transformational leadership behavior in order to revitalize the age old teaching profession.

1.7.3 Transformational Teacher Leadership- a novel approach to Effective Teaching

So far effective teaching involved imparting knowledge.......Now it involves transforming lives......

With the universities as business organizations, teachers as service providers and students as customers, teaching methodology needs to be customer or student centered. The scope of successful teaching extends beyond the explanation of the textbook content and concepts. The developing economy and dynamic socio-economic environment calls for a radical change in the teaching framework. The span of teaching needs to shift from mere transmission of ideas, promotion of rote learning and passive mode of instruction, towards teaching for a greater goal i.e. developing students into independent, self-directed, self-motivated and self-critical learners who accept different perspectives and have strongly developed higher order thinking skills. Students joining a university come from diverse socio-economic and cultural background and move out of the protective school culture where students get a more personal touch. Students experience a transition at the university level, which forms the foundation of their cognitive and affective thought process. The learning at the university is life-long and decides one’s success or failure at the job one
undertakes. This demands replacing the age-old transmission to transformative learning, best defined by O’Sullivan (as cited in Thomas, 2008),

“Transformational learning involves experiencing a deep, structural shift in the basic premises of thought, feelings and actions. It is a shift of consciousness that dramatically and irreversibly alters one’s way of being in the world. Such a shift involves understanding of one’s self and self-locations; one’s relationships with other humans and with the natural world; one’s understanding of relations of power in interlocking structures of class, race and gender; one’s body awareness and vision of alternative approaches to living and one’s sense of possibilities for social justice and peace and personal joy”.

Thus, shift towards transformational learning would in effect be a better approach towards enhancing the contribution of higher education in socio-economic development. This approach demands an instructor to be a guide, mentor and a transformational leader for the students who facilitates students in the transitional process.

Successful teaching so far depended largely on how well a teacher enables impartation of concepts from the text books. Its scope has been limited to student learning measured by the examination results which test students’ ability to cram and put forth the textbook ideas onto the paper. Further, student evaluations included course organization and teachers’ behavior as other dimensions. But teaching is a highly complex process to be narrowed down to a few parameters. Thus, a novel approach to effective teaching has evolved where teachers have emerged as transformational leaders.

The concept of transformational leadership (TL) was originally given by Burns (1978). He proposed that transformational leadership theory is based on the notion of transforming others into leaders and emphasized the ‘teaching goal of leadership’. He distinguished the transactional from transformational leaders and leaders fall either of these two categories. Transactional leaders focus on goal achievement only, exchange of rewards for services rendered by followers, no consideration for follower empowerment and emphasizes on extrinsic/lower order needs of followers. On the other hand, transformational leaders focus on higher order intrinsic needs, stimulate followers towards self-actualization, promote innovation and creativity among followers, inspire a shared vision and emphasize overall development, empowerment of subordinates along with goal achievement. Later it was Bass (1990) who suggested that a successful leader should exhibit the characteristics of
both and transactional and transformational styles complement each other. Bass and Avolio (1990) proposed four characteristics of transformational leadership, labelled as Four I’s which forms the basis for this study:

The first I i.e. Idealized influence focuses on followers’ (students’) identification, appreciation, imitation and admiration of their leaders It suggest a leader has an ambitious vision, exhibits high moral and ethical behaviour, provides vision and a sense of mission, increases optimism and instils pride, has charismatic vision, is imaginative, farsighted, creative thinker and acts as a role model. Leaders (teachers) lead by example, act confidently and optimistically, articulate a vision and explaining how to attain it in an appealing manner, emphasizes values by symbolic actions, establishes personal rapport, treat followers with respect, trust and show confidence in them, helps subordinates become best by recognizing and capitalizing on their strengths, develop their professional and personal achievement standards rather than following footsteeps, high levels of conduct and ethical aspirations, congruency in leader’s actions and words.

Inspirational Motivation- states that a leader (teacher) inspires and motivates followers (students), stimulates to follow a new idea, emanate enthusiasm and optimism, stimulates team work, makes clear and appealing view of the future, offers followers the opportunity to see meaning in their work, challenge followers (students) with high standards, makes vivid descriptions of good future that raises one’s imagination, motivate followers towards higher level of needs. Such a leader (teacher) is enthusiastic about what he/she is doing and that enthusiasm infects his/her followers (students).

Intellectual Stimulation- Leaders (teachers) encourage followers to be creative and innovative in the organization, both leaders (teachers) and followers (students) are open to re-examine their assumptions and traditions, focus on improvement and change, creative and innovative, encourage new ideas, views from followers, adopt new ideas cheerfully, support active involvement of followers. Followers (students) are provided with interesting and challenging tasks and encouraged to solve problems their own way. Incite followers (students) to share controversial ideas without fear of punishment, create an environment conducive to creation and sharing of knowledge, empowerment of followers and promote two way interactions.
Individualized Consideration- Leaders (teachers) focus on individual needs, relate to followers (students) on one to one basis, analyze the followers individually - recognize their wishes, needs, abilities, individual differences and talents, coach and mentor followers, focus on followers’ personal growth and development, provide valuable feedback, listen carefully and empathically to followers (students), express thanks/ praise as a means of motivation, acknowledge of achievements and initiatives, ensure fair evaluation, accessible, approachable. Transformational teaching is the need of the hour. It is an approach to teaching in which life changing learning is experienced. The characteristics of a transformational teacher are based on the concept of transformational leadership. The transformational teacher leaders play a significant role in the change experienced by the education sector (Box 1.5)

**Box 1.5 Importance of Transformational Teacher Leaders**

**What do Transformational Teacher Leaders do?**

- Transformational teachers help the students to shift their focus from long-established techniques of rote learning, reproducing ideas from the text books, mechanical use of formulas towards development of high level analytical skills with a clear understanding of what they are studying, why and how the concepts learnt in the classroom can be put to use in the real life.
- Help students develop critical thinking and high level thinking skills.
- Create an environment where ideas are freely exchanged and individual views are respected.
- Promote democratic culture, where students and teachers set mutual goals and decide about the activities for the learning process.
- Transformational teacher leaders are energy creators i.e. are enthusiastic and always positive.
- Create a ripple effect of transformation i.e. transformational teacher leaders stimulate students to become transformational leaders. Their passion, positive thinking and values are infectious.
- Encourage critical thinking, creativity and imagination in students.
- They serve as role model with high ethical and moral standards.
- Mentor and coach students through their life changing events- not only education related but the personal ones also.
- Develop independent, self-directed, self-motivated and self-critical learners who accept different perspectives and have strongly developed high order thinking skills.
1.8 Emotional Intelligence

The term emotional intelligence (EI) is comprised of two independent and complex concepts of psychology i.e. emotions and intelligence. Psychologists have identified tripartite division of mind i.e. cognition (thought), affect (includes emotion) and connation (includes motivation). Cognitive aspect refers to the thought processes, affective controls, passions and emotions and conative aspect encompasses goals and motivations. Earlier, the term ‘intelligence’ had been generally associated with logical and analytical thinking. But the behavior of an individual is largely guided by the interaction of one’s thought process and emotions. Therefore various interpretations of EI are based on the relationship between emotions and intelligence “Emotions are organized responses crossing the boundaries of many psychological subsystems, including the physiological, cognitive, motivational and experiential systems. Emotions typically arise in response to an event, either internal or external, that has a positively or negatively valenced meaning for the individual”, (Salovey & Mayer, 1990). Emotions are often confused with mood but they are distinct in that emotions are short lived and are more extreme.

As stated by Salovey & Mayer (1990), the widely accepted and repeatedly referred definition of Intelligence was given by David Wechsler as, “the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment”. Further there are numerous definitions of Intelligence, ability to learn and grasp and adjust to the environment being common in almost all of them.

1.8.1 Paradigms in the evolution of Emotional Intelligence

As with any psychological concept, EI has undergone a period of transition before being recognized as a form of intelligence and reach its current popularity. It was Charles Darwin’s idea about the “importance of emotional expression for survival and adaptation in a species” in 1872 that laid the foundation for the concept of emotional –social intelligence (Mayer, 2001). The period from 1920 to 1969 did not admit the possibility of interaction of emotions and intelligence and hence considered the two as distinct fields of study. For psychologists the scope of intelligence was limited to the cognitive aspect of mind i.e. by intelligence they meant the analytical and problem solving ability. Any idea about the role of non-cognitive facet was not considered. The roots of EI can be traced back to 1920, when E.L. Thorndike identified ‘social intelligence’ (considered to be precursor of EI), distinct
from the established mental intelligence and developed a measure of social intelligence, based on matching pictures of emotive faces with their descriptions (as cited in Salovey & Mayer, 1990).

Then in 1983 Howard Gardner’s Frames of mind: the theory of multiple intelligences gave the concept of Interpersonal and Intrapersonal Intelligences (as cited in Howard Gardner’s multiple intelligences, n.d.). According to the theory of multiple intelligences, it is must for a teacher to identify a student’s intelligence type and accommodate the child accordingly. There are nine intelligences in total with two being added to previous seven in ‘Intelligence Reframed’ by Gardner. These intelligences are- visual/spatial, verbal/linguistic, mathematical/logical, bodily/kinesthetic, musical/rhythmic, interpersonal, intrapersonal, naturalist and existentialist. Gardner’s interpersonal intelligence has been cited as forbearing Emotional intelligence. According to Gardner “interpersonal intelligence is the ability to understand other people: what motivates them, how they work, how to work cooperatively with them. Successful salespeople, politicians, clinicians and religious leaders are likely to be individuals with high degrees of interpersonal intelligence….Intrapersonal intelligence is a correlative ability turned inward. It is a capacity to form an accurate, veridical model of oneself and to be able to use that model to operate effectively in life” (Goleman, 1995)

The first academic use of the term emotional intelligence has been found in 1985, in the doctoral dissertation of Wayne Leon Payne (as cited in Mayer, 2001). The year 1990 was a landmark in the evolution of EI with Mayer and Salovey’s Theory of Emotional Intelligence. They have been credited for putting forward the idea of Emotional intelligence in their paper titled “Emotional Intelligence” (Salovey & Mayer, 1990). They found a scientific way of measuring the difference between people’s ability in the area of emotions, with some people more proficient than others at things like identifying their own feelings, identifying the feelings of others, and solving problems involving emotional issues. They defined EI as “A type of information processing that includes appraisal of emotions in oneself and others, appropriate expression of emotion and adaptive regulation of emotion in such a way as to enhance living” (Salovey & Mayer, 1990). They improvised their definition of EI further in the years 1997 and 1999 to include the skills involved in processing of the emotional information. They gave an all-inclusive definition of EI as, “an ability to recognize the meanings of emotions and their relationships and to reason and problem solve
on the basis of them. EI is involved in the capacity to perceive emotions, assimilate emotion related feelings, understand the information of those emotions and manage them”, (Mayer & Salovey, 1997). Their model of EI is termed as Ability based model as they measure EI as a set of abilities. EI has been branded as a ‘hot intelligence’ because it is based on hot cognitions i.e. ones dealing with subjects of personal and emotional importance to the individual (Mayer, Salovey & Caruso, 2004).

Later in the year 1995, Daniel Goleman revolutionized the concept of EI with his best seller Emotional Intelligence: Why it can matter more than IQ. Goleman’s EI has been acclaimed for its relationship with the factors operating in the workplace e.g. success, performance, leadership, etc. He actually highlighted how the concept of EI can be applied to business. His article, “What makes a leader?” in the Harvard Business Review in which he stressed upon the role Emotional Intelligence in effective leadership created ripples in the world of business. Supporting Goleman’s EI concept Nancy Gibbs (2004), wrote an article which made to the cover page of the time magazine and thereafter the concept of EI reached limelight and caught the attention of the researchers worldwide. The research on EI encompass the relationship of EI with various factors in the organizational settings like leadership, performance, various components of organizational behavior and the field of EI itself.

1.8.2 Definitions of Emotional Intelligence

With the intensive research in the field of EI, numerous definitions of the concept have emerged. Some of the important ones are as listed in the Box 1.6.

Box 1.6 Definitions of Emotional Intelligence

“A type of information processing that includes appraisal of emotions in oneself and others, appropriate expression of emotion and adaptive regulation of emotion in such a way as to enhance living”. Salovey & Mayer (1990)

“‘The capacity to reason about emotions, and of emotions to enhance thinking. It includes the abilities to accurately perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge and to reflectively regulate emotions so as to promote emotional and intellectual growth”. Salovey & Mayer (1997)
“An ability to recognize the meanings of emotions and their relationships and to reason and problem solve on the basis of them. EI is involved in the capacity to perceive emotions, assimilate emotion related feelings, understand the information of those emotions and manage them”. Mayer, Caruso & Salovey (1999)

“An array of non-cognitive capabilities, competencies and skills that influence one’s ability to succeed in coping with environmental demands and pressures”. Bar-On (2006)

“The capacity for recognizing our own feelings and those of others, for motivating ourselves and for managing emotions well in ourselves and in our relationships”. Goleman (1995)

An integrated definition…“Emotional Intelligence is observed when a person demonstrates the competencies that constitute self-awareness, self-management, social awareness and social skills at appropriate times and ways in sufficient frequency to be effective in the situation”. Boyatzis, Goleman & Kenneth Rhee, 2000

“A constellation of emotional self-perceptions located at the lower levels of personality hierarchies and measured via the trait emotional intelligence questionnaire”. Petrides (2010)

### 1.8.3 Models of Emotional Intelligence

EI has been defined and placed in different frameworks by various psychologists or scientists e.g. Mayer & Salovey have described EI as a model of true intelligence, Goleman has formulated EI as a theory of performance and Reuven Bar-On has framed it in terms of personality theory. These frameworks differ in the context, focus and techniques of measurement. There are three most broadly referred models of EI as shown in Figure 1.11.

**Figure 1.10 Models of Emotional Intelligence**

- **Ability-Based Model**
- **Mixed Models**
- **Trait EI Model**
1.8.3.1 Mayer and Salovey’s ability model

John Mayer and Peter Salovey were the pioneers in defining the term Emotional Intelligence and establishing it as a field of study in 1990, in their paper published titled with the same name. They stated EI as “A type of information processing that includes appraisal of emotions in oneself and others, appropriate expression of emotion and adaptive regulation of emotion in such a way as to enhance living” (Salovey & Mayer, 1990). They further added to this definition in 1997 with EI as “the capacity to reason about emotions, and of emotions to enhance thinking. It includes the abilities to accurately perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge and to reflectively regulate emotions so as to promote emotional and intellectual growth”.

They came up with a modified version in 1999 and redefined EI as “an ability to recognize the meanings of emotions and their relationships and to reason and problem solve on the basis of them. EI is involved in the capacity to perceive emotions, assimilate emotion related feelings, understand the information of those emotions and manage them”. Mayer and Salovey’s EI quintessentially means capacity of perception, assimilation, comprehend and manage emotional information.

Mayer and Salovey have realized and proved EI as a true intelligence as it satisfies the three tier criteria for an absolute intelligence (Mayer, Caruso & Salovey, 1999):

a. Accurate Measurement of Intelligence- Emotional Intelligence measures mental performance of emotion related abilities and is just not the manner in which one behaves i.e. items used to measure EI have more or less correct answers.

b. Relationship with other intelligences- EI abilities and mental abilities of established intelligences are correlated but at the same time EI abilities are distinct from existing intelligences.

c. EI develops with age.

The four branch ability model by Mayer and Salovey classifies EI into four abilities at four levels from bottom to top according to extent of amalgamation of the ability within an individual’s major psychological subsystems i.e. his or her personality. The four branches from bottom to top are as shown in the Figure1.12.
The four branches from bottom to top are:

i. **Perception of emotion**: at the lowest level is the ability to perceive emotions in self as well as in others. It mainly refers to capability to recognize nonverbal information i.e. in facial expressions, postures, gestures etc. How accurately an individual perceives and assesses emotions determines the success of interpersonal communication. An emotionally intelligent individual will have a fair idea of genuine and manipulative expression and will be able to express his or her feelings as well as the feelings in others accurately e.g. accurate judgment of emotions in self and in others supports precise decisions.

ii. **Assimilation of emotional information**: it is concerned with the action of emotions on intelligence. This level refers an ability of emotion to facilitate thought process i.e. emotions support the intellectual processing. Emotions trigger an individual to respond in a certain manner e.g. an infant cries for feed, laughs when smiled at. Thus emotions indicate significant changes within us and in the environment that surrounds us. As one matures
these emotions direct our attention towards more important changes e.g. a team leader will be concerned with the deadline of his project. At the same time it deals with ‘on demand’ generation of emotions e.g. when asked about the life’s experiences, one goes through the different phases to generate feelings.

iii. **Understanding and analyzing emotions; employing emotional knowledge:** it refers to the capability of comprehending emotions and utilizing the emotional knowledge. It is concerned with investigating emotions, giving meaning to them, identifying the relationship among emotions, recognizing the trends they follow and understanding their outcomes.

iv. **Emotional management or regulation:** it points to an ability to control and alter emotional expression in self and in others, to get desired response from others and channelize emotions towards achievement of desired goals and solving problems. Controlling anger in public, smiling even when feeling sad, etc. are some of the examples of regulating and managing emotions.

**Measures of Mayer and Salovey’s Model**

**MSCEIT**

Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) measures the four capabilities and uses eight tasks, two for each component of EI. The various branches of EI model are measured through different tasks:

i. **Perception of Emotion:** it is measured through emotive faces (participants are asked to identify the emotion portrayed in the face and pictures, wherein participants need to spot the emotions expressed by landscapes and designs.

ii. **Facilitation of emotion:** it is measured for sensations (in which participants are asked to make a comparison between emotions and other sensory and tangible stimuli) and facilitation (participants need to recognize the emotions that would assist a type of thinking in the best possible manner).

iii. **Understanding of emotion:** measured through changes (tests an individual’s increase or decrease in emotional intensity and the transition from one emotional state to another)
and blends (ask participants to recognize emotions involved in more complex affective states).

iv. Management of emotions- it is measured by emotion management (involves presenting participants the imaginary circumstances and asking them how would they maintain or change their feelings) and emotion relationships (asking participants how would they manage others’ feelings in order to achieve desired outcomes).

The MSCEIT has 141 items. It gives six scores- an overall score referred as Emotional Intelligence Quotient or EIQ, two area scores (EEIQ i.e. Experiential EIQ and SEIQ i.e. Strategic EIQ) and four scores for each branch.

1.8.3.2 Goleman’s Model of Emotional Intelligence

Daniel Goleman brought a transformation in the field of EI through his performance based model of EI. He defined and classified EI in terms of its applicability in the organizations. His landmark book titled ‘Emotional Intelligence- Why it can matter more than IQ?’ in 1995 popularized the concept in the world of business. He has described the qualities of an emotionally intelligent individual from the perspective of effective performance in an organization. Daniel Goleman’s work on Emotional Intelligence and Leadership is highly commendable and his well-known article “What makes a leader?” was republished in best of Harvard Business Review (Best of HBR 1998).

According to Goleman, it is emotional competence (personal and social), which is more accurate predictor of performance, and EI serves as a foundation for emotional competence. As stated by him, “Emotional competencies are linked to and based on emotional intelligence. A certain level of emotional intelligence is necessary to learn emotional competencies”. He defined an "emotional competence" as "a learned capability based on emotional intelligence that results in outstanding performance at work (Goleman, 1998).

Goleman has delineated EI into four components:

i. **Self-Awareness**: it is concerned with a profound understanding of one’s emotions, strengths, weaknesses, needs and drives. A self-aware person will be modest and balanced because he or she will have a perfect idea about himself and will be neither excessively
negative nor over-confident about his or her abilities. This cluster includes the abilities like emotional awareness, accurate self-assessment and self-confidence. Individuals high on self-awareness will exhibit the following characteristics:

a. They understand the influence of their feelings on themselves, others and on their performance on the job.

b. A deeper understanding of their values and goals ensures they are self-directed and their decisions are aligned with their values and goals. As a result, they are enthusiastic about their work and remain interested in the job they undertake.

c. They are honest with themselves and with others. Hence they are open to sincere and positive feedback about themselves and welcome others’ suggestions for improvement.

d. Self-aware people never bite more than they can chew. They are thoroughly aware of their vigor and flaws and accept assignments accordingly.

Thus, Goleman supports that three competencies are must for achieving stupendous performance i.e. self-awareness, self-confidence and accurate self-assessment.

ii. **Self-regulation or Self-Management**: it refers to the capability to control one’s emotions and desires and settle in to the varying environment. Emotional impulses must be channelized in a constructive manner in order to direct them towards the achievement of desired goals. People high on self-regulation are comfortable with uncertainties and alterations and maintain integrity i.e. they know when to say no to their reckless desires. This component consists of competencies like self-control, trustworthiness, conscientiousness, adaptability and innovation. The importance of self-management or self-regulation lies in the fact that:

a. A self-regulated individual will manage to create an environment of trustworthiness and reverence, conducive for developing healthy relationships with others.

b. A self-managed person’s serenity and calmness will be contagious and reach down the corporate ladder with his or subordinates reflecting similar characteristics in emotionally challenging situations.
c. Self-regulated people can master their emotions making them flexible and adaptive to the varying demands of the environment. With their penchant for attention to detail and unfathomable thinking, these people are capable of leading others in difficult situations.

iii. **Motivation**: motivation has been defined as the processes that account for an individual’s intensity, direction, and persistence of effort toward attaining a goal. A high EI person will be self-motivated with zero dependence on external rewards. In other words an emotionally intelligent individual will not be lured by pay rise, promotion, hefty package etc.; rather he or she will be driven towards goal due to his zeal or passion for achievement. It includes achievement capabilities like drive, initiative, commitment and optimism in its sphere. The features of persons high on motivation are:

a. A common feature of a self-motivated individual is his fanaticism for the job he undertakes, his thirst for knowledge and his keenness for ingenious challenges.

b. They exert tireless efforts to do better question the routine methods of doing work and are keen to discover innovative techniques to do their work.

c. They neither boast about nor rest on their achievements, they believe in continuously raising the levels of performance milestones.

d. They are an ardent believers of keeping a track of their as well as others’ performance graph. They are strongly committed to the organization in general and its goals in particular.

iv. **Empathy**: it is an ability to understand others by putting oneself ion others’ situation. Certain organizational changes like global operations, diverse workforce, need for retaining talent, stressful environment etc. require the people in the organizations to be empathetic towards others. This sphere includes abilities like understanding others, developing others, service orientation, political awareness and leveraging diversity. This ability is must in order to develop and maintain relationships with others.

e. **Social skills**: it involves qualities such as managing conflicts, building rapport with others and team capabilities. They are strong believers in team work and are excellent at convincing others and co-operating with others for a common cause. This cluster is composed of competencies like Influence, Communication, Conflict Management,
leadership, Change Catalyst, Building Bonds, Collaboration and Cooperation and Team Capabilities.

The clusters represent behavioral groups of desired and related competencies. The competencies within a cluster may be linked empirically i.e. it is possible to establish the association among them statistically. In other words the competencies within a cluster are exhibited together. These capabilities are interdependent with one ability supporting and augmenting others e.g. for effective relationship management one needs to understand and control emotions in oneself and in others and at the same time be self-motivated in order to persistently follow goal in times of obscurity. The competencies contained in a cluster may be related with each other in any of the four ways- complementary, alternate manifestations, compensatory (greater use of one competency balance the less use of other), antagonistic (increasing use of one competency inhibit the use of the other e.g. excessive self-control may hamper capacity to take initiative). (Boyatzis, Goleman, Rhee, 2000).

Daniel Goleman reviewed his model in 2000 and explained it in his book titled “Working with Emotional Intelligence”, wherein he purports how learning and development of EI skills leads to successful job performance. He insists that emotional intelligence decides whether one has the potential to learn the EI skills and it is emotional competence which represents the level of that potential harnessed by an individual to develop and learn on-the-job capabilities (Goleman, 1998). The current model (as shown in the Figure 1.13) has 4 domains with 20 competencies instead of 5 domains with 25 competencies. These sets of competencies have been concluded following a research conducted by Boyatzis, Goleman and Rhee (2000). This research used Emotional Competence Inventory filled up by about 600 corporate managers and professionals and engineering, management, and social work graduate students. Three major domains emerged from the analysis i.e. Self-Awareness, Self-Management, and Social-Awareness along with Relationship Management. In this model, various competencies have been coalesced with others e.g. innovation has been merged into Initiative, optimism with achievement drive, leveraging diversity and understanding others into empathy, organizational commitment into leadership and Collaboration and team capabilities now fall under competency named Teamwork & Collaboration. The term Political Awareness has been replaced with Organizational Awareness and Emotional Awareness has been termed as Emotional Self-Awareness.
Figure 1.12 Daniel Goleman’s Model of Emotional Intelligence

<table>
<thead>
<tr>
<th>Recognition</th>
<th>Self Personal Competence</th>
<th>Other Social Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Awareness</td>
<td>-Emotional self-awareness</td>
<td>Social Awareness</td>
</tr>
<tr>
<td></td>
<td>-Accurate self-assessment</td>
<td>-Empathy</td>
</tr>
<tr>
<td></td>
<td>-Self-confidence</td>
<td>-Service orientation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Self-Management</th>
<th>Relationship Management</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-Self-control</td>
<td>-Developing others</td>
</tr>
<tr>
<td></td>
<td>-Trustworthiness</td>
<td>-Influence</td>
</tr>
<tr>
<td></td>
<td>-Conscientiousness</td>
<td>-Communication</td>
</tr>
<tr>
<td></td>
<td>-Adaptability</td>
<td>-Conflict management</td>
</tr>
<tr>
<td></td>
<td>-Achievement drive</td>
<td>-Leadership</td>
</tr>
<tr>
<td></td>
<td>-Initiative</td>
<td>-Change catalyst</td>
</tr>
</tbody>
</table>


Measures of Goleman’s Model

Emotional Competence Inventory (ECI) by Daniel Goleman and Richard Boyatzis.

It is a seven point scale which measures twenty competencies grouped under self-awareness, social awareness, self-management and social skills. It is a 360-degree rating instrument with inputs from self, manager and peer ratings.

EIA or Emotional Intelligence Appraisal

The instrument has 28 items and is a six point scale where 1 means “never” exhibiting a behavior and 6 means “always” exhibiting a behavior. It generates five scores i.e. an overall EQ and a score for each of four components of EI.

Work profile Questionnaire- Emotional Intelligence Version

It is a self-report measurement tool of Goleman’s seven competencies. It generates an overall EQ score and a score for each of the seven competencies i.e. Innovation, Self-awareness, Intuition, Emotions, Motivation, Empathy and Social skills.
1.8.3.3 Reuven Bar-On’s model of Emotional Intelligence

Reuven Bar On was the first to try to evaluate EI and he had used the term Emotional Quotient in his doctoral thesis long before it became popular. He modified his concept of EI in 2000 as, “an array of emotional and social knowledge and abilities that influence our overall ability to effectively cope with environmental demands”. Bar On’s (2006) array includes:

i. The ability to be self-aware and the ability to understand oneself and express accurately.

ii. The ability to relate to others.

iii. The ability to manage strong emotions and exercise control over one’s impulses.

iv. The ability to adjust with change and to solve problems in personal and social domain.

He developed an Emotional Quotient Inventory (EQ-i), a self-reporting scale for measuring the EI. Bar On has characterized EI into five categories (Table 1.8).

v. Intrapersonal EQ- this is composed of emotional self-awareness, assertiveness, self-regard, self-actualization and independence.

vi. Interpersonal EQ- it includes empathy, interpersonal relationship and social responsibility.

vii. Adaptability EQ- it has been classified into problem solving, reality testing and flexibility.

viii. Stress management- it is constituted by stress tolerance and impulse control.

ix. General Mood EQ- it refers to happiness and Optimism.

Table 1.8 Bar-On’s Emotional Intelligence domains and competencies

<table>
<thead>
<tr>
<th>EI domains</th>
<th>Competencies and Skills measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrapersonal</td>
<td>Self-Awareness and self-expression</td>
</tr>
<tr>
<td>Self-Regard</td>
<td>To accurately perceive, understand and accept oneself.</td>
</tr>
<tr>
<td>Emotional Self-Awareness</td>
<td>To be aware of and understand one’s emotions</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>To effectively and constructively express one’s emotions and oneself</td>
</tr>
<tr>
<td>Independence</td>
<td>To be self-reliant and free of emotional dependency on others</td>
</tr>
<tr>
<td>Self-Actualization</td>
<td>To strive to achieve personal goals and actualize one’s potential</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Interpersonal</strong></th>
<th><strong>Social Awareness and interpersonal relationship</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy</td>
<td>To be aware of and understand how others feel</td>
</tr>
<tr>
<td>Social Responsibility</td>
<td>To identify with one’s social group and cooperate with others</td>
</tr>
<tr>
<td>Interpersonal Relationship</td>
<td>To establish mutually satisfying relationships and relate well with others.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Stress Management</strong></th>
<th><strong>Emotional Management and regulation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress Tolerance</td>
<td>To effectively and constructively manage emotions</td>
</tr>
<tr>
<td>Impulse control</td>
<td>To effectively and constructively control emotions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Adaptability</strong></th>
<th><strong>Change management</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reality-Testing</td>
<td>To objectively validate one’s feelings and thinking with external reality</td>
</tr>
<tr>
<td>Flexibility</td>
<td>To adapt and adjust one’s feelings and thinking to new situations.</td>
</tr>
<tr>
<td>Problem-Solving</td>
<td>To effectively solve problems of a personal and interpersonal nature.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>General Mood</strong></th>
<th><strong>Self-motivation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimism</td>
<td>To be positive and look at the brighter side of life.</td>
</tr>
<tr>
<td>Happiness</td>
<td>To feel content with oneself, others and life in general.</td>
</tr>
</tbody>
</table>


**Measures of Bar-On Model**

Bar-On Emotional quotient Inventory (EQ-i) - it is a self-report measure of EI and measures the mental ability to be successful in dealing with environmental demands and pressures. Developed by Reuven Bar-On (1997), the EQ-i is a five point scale with
responses ranging from 1 through 5 where ‘1’ stands for “very seldom or not true of me” and ‘5’ stands for “very often true of me or true of me”. It has 133 items and generates a total EQ score and five scores for each of the five emotional competencies of Bar-On. EQ-i measures five competencies which are in turn composed of 15 abilities. Various versions of EQ-I have been developed for distinct situations and people. These include: EQ-Interview (to be conducted after the self-report form), EQ-I Short Form (a 52 item scale), EQ-I 125 (a 125 item scale), EQ-I Youth form (for 7-15 years age group) and EQ-360 (used with self-report EQ-i, gives 360 degree inputs for EI).

1.8.3.4 Trait Model of Emotional Intelligence

Trait EI has been defined as “a constellation of emotional self-perceptions located at the lower levels of personality hierarchies and measured via the trait emotional intelligence questionnaire”. The trait EI model as proposed by Petrides has 15 domains as shown in the Table 1.9.

<table>
<thead>
<tr>
<th>Domain</th>
<th>High scorers perceive themselves as……</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptability</td>
<td>Flexible and willing to adapt to new conditions</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>Forthright, frank, and willing to stand up for their rights.</td>
</tr>
<tr>
<td>Emotion expression</td>
<td>Capable of communicating their feelings to others</td>
</tr>
<tr>
<td>Emotion management (others)</td>
<td>Capable of influencing other people’s feelings.</td>
</tr>
<tr>
<td>Emotion perception (self and others)</td>
<td>Clear about their own and other people’s feelings.</td>
</tr>
<tr>
<td>Emotion regulation</td>
<td>Capable of controlling their emotions.</td>
</tr>
<tr>
<td>Impulsiveness (low)</td>
<td>Reflective and less likely to give in to their urges.</td>
</tr>
<tr>
<td>Relationship skills</td>
<td>Capable of maintaining fulfilling relationships</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>Successful and self-confident.</td>
</tr>
<tr>
<td>Self-motivation</td>
<td>Driven and unlikely to give up in the face of adversity.</td>
</tr>
<tr>
<td>Social competence</td>
<td>Accomplished networkers with superior social skills.</td>
</tr>
</tbody>
</table>
Stress management | Capable of withstanding pressure and regulating stress.
---|---
Trait empathy | Capable of taking someone else’s perspective.
Trait happiness | Cheerful and satisfied with their lives.
Trait optimism | Confident and likely to look on the bright side of life.

Source: Petrides et al. (2007). Trait EI- Moving forward in the field of EI

Trait EI reflects on the subjective nature of emotional experience and the aspects of Trait EI are personality traits in line with those proposed by the Big Five personality traits. Considering the fact that no single EI trait or competency or ability decides success in all types of work, assessment in the subject of Trait EI correlates with that of personality, where various personality traits are matched with the requisites of job characteristics with certain traits determining success in a specific job.

Measures of Trait EI

**TEIQUE**

Trait Emotional Intelligence Questionnaire (TEIQUE) has been developed by K.V. Petrides based on the concept of trait EI. The instrument includes the 15 facets or aspects of Trait EI. It is available in many versions and forms (psychometric lab)-

- TEIQue- v. 1.50- with 153 items, 15 facets and 4 factors it generates an overall trait EQ score.
- TEIQue--SF – a short form, it has 30 items and it gives a global trait EQ score.
- TEIQue-AF –adolescent form, it is a full form scale for ages 13-17.
- TEIQue-ASF – an adolescent short form for children as young as 11 years
- TEIQue-360 – a full form scale for 360 degree ratings.
- TEIQue-360S- short form for 360 degree ratings.
- TEIQue-CF – a child form developed by Stella Mavroveli for 8-12 years age group. It has 75 items, 9 facets, gives a global trait EQ score.
- TEIQue-CSF – a child short form with 36 items generates a global trait EI score for ages 8-12.
1.9 Emotional Intelligence and Transformational teacher leadership

Teacher leaders with high EI are more likely to exhibit transformational behaviour. The constituents of EI form the basis for transformational leadership characteristics. Transformational leadership skills based on four I’s are intertwined with the concepts of EI in literature and EI as a component of transformative leadership should be evaluated and developed (Mills, 2009). Daniel Goleman’s five competencies of emotional intelligence are conceptually related with Four I’s of transformational leadership as explained below:

i. Self-Regulation- a competence which enables an individual to exercise self-control in unstable circumstances, be trustworthy, adaptable and devise innovative methods of problem solving. It helps leader to handle stress, frustration, disappointments and joys (George, 2000). A leader high in EI will maintain composure under problem situation and will be able to manage and lead subordinates in challenging circumstances. A leader with high self-regulation will be able to delay gratification, serve as a role model, establish trust in and gain respect and confidence of his followers (Barling, Slater & Kelloway, 2000). A self-regulated leader will be able to exercise Idealized influence – a characteristic of TL.

ii. Self-Motivation- this capability enables individuals to be optimistic, enthusiastic, achievement-driven, and committed despite all hindrances. Emotionally intelligent leaders are self-motivated and their optimism and enthusiasm are contagious which inspire followers to perform beyond expectations. Evidently, these are the characteristics in sync with essence of Inspirational Motivation.

iii. Empathy- an ability to understand and relate to others’ emotions by stepping into their shoes. Empathetic leaders are perceived by their subordinates as supportive and considerate. Clearly, empathy forms the basis for Individualized Consideration aspect of transformational leadership.

iv. Social Skills- these refer to ability to manage conflict and lead a team. Leaders adept at social skills will be able to resolve conflicts and maintain harmony in a workgroup and will keep ambiguity at a distance to avoid an environment of distrust. This characteristic is required for a leader to practice Inspirational motivation and Individualized Consideration.
v. Self-Awareness- a competence which helps an individual to be aware of his/her emotions and how these emotions affect others. A Transformational leader should possess this ability to exert Individualized Consideration and Idealized Influence.

Lastly, with their ability to understand others (empathy) and consider others’ viewpoints (awareness), to be creative and innovative, emotionally intelligent leaders (teachers) create an environment of trust and respect which encourage free exchange of ideas- a requirement for Intellectual Stimulation. Emotionally intelligent teacher leaders encourage open minded idea generation, decision making and planning because they consider multiple stances by understanding how the students feel. Transformational teacher leaders will be able to channel students’ emotions and perceptions to accept change and gain support and acceptance of the objectives of an organization (George, 2000). A teacher leader’s behaviour should reflect the characteristics of a transformational leader and requires emotional intelligence abilities in order to exhibit excellence in teaching. The relationship between transformational leadership components, transformational teacher leader’s behaviour and underlying emotional intelligence capabilities are as shown in the Table 1.10.

**Table 1.10 Relationship between Transformational Teacher Leadership components and Emotional Intelligence competencies**

<table>
<thead>
<tr>
<th>Transformational Leadership Components</th>
<th>Transformational Teacher Leader’s behaviour</th>
<th>Goleman’s Emotional Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idealized Influence</td>
<td>Teacher acts as a role model, is admired by the students, leads by example, treats students with respect, trusts and shows confidence in students and exemplifies high ethical and moral conduct.</td>
<td>Self-Regulation</td>
</tr>
<tr>
<td>Inspirational Motivation</td>
<td>Teacher inspires students, is enthusiastic to teach, motivate students to achieve greater standards.</td>
<td>Self-Motivation, Self-Awareness, Optimism</td>
</tr>
<tr>
<td>Intellectual</td>
<td>Teacher encourages students to be innovative, welcomes new ideas from students,</td>
<td>Creativity, Innovativeness, Open</td>
</tr>
<tr>
<td>Stimulation</td>
<td>continuously presents students with interesting and intellectually challenging assignments; incite students to express their views freely in the class.</td>
<td>acceptance of diverse perspectives.</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Individualized Consideration</td>
<td>Teacher recognizes students’ needs, attributes, individual differences &amp; talents; Teacher is approachable, ensures fair evaluation, is truly appreciative of students’ achievements; Teacher listens carefully &amp; empathically to students.</td>
<td>Empathy, Social skills</td>
</tr>
</tbody>
</table>

As cited by Bennis (2004), “one challenge for a leader is to nurture those people whose stars may shine as brightly as- or even brighter than- the leader’s own and this is the real test of character for a leader”. It is this exemplary trait which forms the basis of transformational teacher leaders. Researchers have supported the vital role of Emotional intelligence in quality teaching (Haskett & Bean, 2005) and also the role of EI based leadership in teaching effectiveness (Mohamadkhani, 2010). Therefore, teachers as leaders in the classroom are expected to exhibit the behaviour specified by the 4 characteristics of the transformational leadership and emotional intelligence competencies enable them to become proficient in the conduct of their role as transformational leaders.

Hence, for the purpose of this study, performance of teachers has been measured by their teaching effectiveness which in turn has been considered from a different perspective i.e. teachers’ effectiveness in exercising transformational leadership behaviour.

1.10 Organizational Commitment

With the advent of competitive and dynamic business environment, lightning speed changes in technology and globalization, a challenging situation for managing the workforce has emerged. Ever-changing work environment is accompanied by Job insecurity, high employee turnover, changing demand for skill sets, diversity of workforce, and multiplicity of employee roles. These impediments require organizations to be proactive in retaining
employees and in improving organizational effectiveness. According to Meyer and Allen (1997: 114) “the biggest challenge for commitment researchers will be to determine how commitment is affected by the many changes such as increased global competition, reengineering and downsizing that are occurring in the world of work”. In the existing business and economic environment, it is the qualified and committed workforce which can chart an organization’s path to success. A loyal and committed workforce is imperative for an organization to have an edge over its competitors.

Organizational commitment (OC) has been a widely researched topic in management due to its positive outcomes such as intention to stay with an organization (Shore & Martin, 1989; Kumar & Eng, 2012), desirable work behavior (Meyer et al., 2002), performance (Dixit & Bhati, 2012).

Researchers have described Organizational commitment as an attitude and as behavior. Attitudinal perspective describes OC in terms of association of individuals and their organization i.e. degree of identification with organization and its values and goals and desire to sustain membership in the organization (Meyer, Allen & Gellatly, 1990). It basically explains the extent to which individual goals and values are in congruence with those of the organization. The behavioral aspect describes OC in terms of morally correct behavior exhibited by committed individuals who give precedence to organizational goals and interests and commitment of employees to existing groups within the organization.

OC has been described by various researchers; some of the definitions are exhibited in the Box 1.7.

**Box 1.7 Definitions of Organizational Commitment**

“An attachment to the organization, characterized by an intention to remain in it; an identification with the values and goals of the organization and a willingness to exert extra effort on its behalf” (Porter et al, 1974)

“Is multidimensional in nature, involving an employee’s loyalty to the organization, willingness to exert extra effort on behalf of the organization, degree of goal and value congruency with the organization and desire to maintain membership” (Bateman and Strasser, 1984)
“A psychological state which characterizes an individual’s attitude towards his or her organization and determines one’s decision to continue or discontinue membership in the organization” (Meyer & Allen, 1997)

“A force that binds an individual to a course of action of relevance to one or more targets. As such, commitment is distinguishable from exchange based forms of motivation and from target relevant attitudes and can influence behavior even in the absence of extrinsic motivation or positive attitudes” (Meyer & Herscovitch, 2001)

“The psychological attachment felt by the individual for an organization, which reflects the degree to which the individual internalizes or adopts the characteristics or perspectives of the organization” (O’Reilly and Chatman, 1986)

Different stances on organizational commitment can be simplified to conclude that organizational commitment is the psychological association with the organization formed through the development of a positive attitude towards organization. It is characterized by harmony between organizational and individual beliefs, values and goals; altruism, where organizational goals are more important than individual goals; employees’ zeal to go an extra mile in achieving organizational objectives. Organization and individual become one entity and are inseparable.

1.10.1 Models of Organizational Commitment

The concept of organizational commitment has evolved over the period of time with the earlier researchers characterizing it as a single dimension construct into contemporarily as a multi-dimensional variable. Researchers have alleged diverse versions of organizational commitment. Therefore different perspectives have led to assorted descriptions of the term e.g. - Attitudinal perspective; Behavioral perspective; Exchange-based perspective (Becker’s side-bet theory, 1960); Multi-dimensional perspective (O’Reilly & Chatman, 1986; Meyer & Allen model, 1997).

Some of the important models contributing to the understanding of OC are:
1.10.1.1 Becker’s ‘Side-bet theory’ (1960)

The first attempt to propose a theoretical model for explaining organizational commitment was given by H.S. Becker in 1960. This model adopts an exchange based approach towards understanding of OC. According to Becker, “Commitment comes into being when a person, by making a side bet, links extraneous interests with a consistent line of activity”. According to this theory, employees have side bets or investments made in the organization in the form of effort, time, skills etc. These investments enforce an individual to stay with an organization due to costs involved in quitting an organization i.e. retirement plans, promotion, and seniority. In other words, side bet theory depicts cost benefit analysis approach to explaining the membership of an individual in an organization i.e. it explains the calculative or normative aspect of OC. Therefore, employees maintain membership in the organization as long as benefits of staying in an organization offset costs of leaving it and due to scarcity of alternatives (Amernic & Aranya, 1983). The major limitation in this model is that it is concerned with behavioral aspect of commitment.

1.10.1.2 Porter, Steers, Mowday and Boulian theory (1974)

According to this theory, OC is constituted by both attitudinal and behavioral aspects. They proposed a cyclical relationship between these two aspects i.e. commitment attitudes determine commitment behaviors which in turn strengthens commitment attitudes. Porter et al. (1974) explain organizational commitment as “the relative strength of an individual’s identification with and involvement in a particular organization, which is characterized by belief in and acceptance of organizational goals and values, willingness to exert effort on behalf of the organization”. This definition describes three elements of OC i.e.

i) An aspiration to continue association with the organization,

ii) A readiness to exert extra effort on behalf of the organization and

iii) An affiliation with values and goals of the organization.

The level of employees’ commitment towards organization is determined by the extent to which their goals and values align with those of the organization.
1.10.1.3 O’Reilly and Chatman Model (1986)

O’Reilly and Chatman developed a multidimensional framework of OC and their theory describes motivational aspect of commitment. O’Reilly and Chatman (1986) defined commitment as “the psychological attachment felt by the individual for an organization, which reflects the degree to which the individual internalizes or adopts the characteristics or perspectives of the organization”. Three forms of organizational commitment emerge depending upon level of psychological attachment or involvement:

a. Compliance- it refers to instrumental involvement of an individual wherein adoption of an attitude and its attitudes and consequent behaviour occurs with an underlying aim to achieve specific extrinsic rewards.

b. Identification- basic reason for involvement here is the desire for affiliation and an individual’s acceptance of influence is aimed at sustaining membership in the organization. The involvement here is superficial where individual values and beliefs are incongruent with those of the organization.

c. Internalization- involvement here is based on the similarity between individual and organizational values

O’Reilly and Chatman (1986) later reformed their theory to include two dimensions of commitment i.e. Compliance and Normative composed of internalization and identification (Little, 2007)

1.10.1.4 Meyer and Allen Model (1990)

The most widely accepted and applicable multi-dimensional theory of organizational commitment was developed by Meyer and Allen. They conceptualized commitment as composed of two dimensions (i.e. Affective and Continuance) in 1984 and later (in 1990) introduced an additional dimension i.e. Normative Commitment to their model. Meyer and Allen’s dimensions of OC take cues from its predecessors i.e. Continuance Commitment is based on Becker’s side-bet theory and Affective commitment on Porter et al., (1974) concept of OC. The three components of OC in this model(as explained in Meyer et al, 1990) are:
i. Affective Commitment- this commitment happens when employees’ beliefs and values are analogous with those of the organization. It has been defined as “positive feelings of identification with, attachment to and involvement in the work organization”. It refers to employees’ voluntary willingness to maintain relationship with the organization.

ii. Continuance Commitment- it refers to association of an individual with an organization depending upon the accumulated investments and rewards received in return of the services extended by the individual towards the achievement of organizational objectives. The investments here include pension plans, seniority, promotion, perks, fringe benefits etc. which would last as long as one is affiliated with the organization. Individuals with this type of commitment stay with an organization because ‘they need to’ i.e. employees may quit the organization once better opportunities show.

iii. Normative Commitment- it is based on mutual obligation wherein employees consider sustaining association with the organization as their moral responsibility towards organization in return of the investments made by organization such as in the form of training and development. Normatively committed employees stay with an organization because ‘they ought to’.

The multidimensional model by Meyer and Allen is composed of five elements-

i. Distal Antecedents: these factors influence commitment through more proximal variables. The distal factors have been classified as organizational characteristics, personal characteristics, socialization experience, management practices and environmental conditions.

ii. Proximal antecedents: they have direct impact on commitment and have been grouped as work experiences, role status and psychological contracts.

iii. Process: the third part of the model explains the method in which antecedents influence the various components of OC. The process has been classified as affect related, norm related or cost related.

iv. Components of OC: these include the Affective, Continuance and Normative commitment.
v. Consequences: these are the outcomes of organizational commitment. They have been categorized as Retention (withdrawal cognition, turnover intention, turnover), Productive Behaviour (attendance, performance, citizenship) and Employee Well-Being (psychological health, physical health and career progress).

Researchers have found positive relationship between various antecedents such as corporate culture (Ghina, 2012), perceived organizational support (Colakoglu, Culha & Atay, 2010), transformational leadership style (Saqer, 2009) and organizational commitment. Moreover, emotional intelligence has also emerged as significant predictor of OC in various organizational set ups (Mohamadkhani & Lalardi, 2012; Negoescu, 2012; Nordin, 2012; Sarboland, 2012; Antony, 2013). This study focuses on the possibility of emotional intelligence as an antecedent of OC of teachers in higher education institutions.

1.11 Job Involvement

Organizations worldwide are striving to retain their employees and are continuously devising strategies to enhance their job performance. An individual’s association with his or her organization and work performance is interplay of numerous factors i.e. psychological, economic, personal, social factors etc. Out of the number of attitudes and psychological variables influencing work performance, one construct which is responsible for improved performance and has gained considerable attention of researchers is ‘Job Involvement’. Logically, employees with greater job involvement love their work, perform their job wholeheartedly, and willingly exert extra effort in achieving organizational objectives and have less instances of leaving an organization (Kanungo, 1979; Kahn, 1990; Pfeffer, 1994). Highly involved employees have predisposition to maintain their membership in the organization and exhibit fewer instances of absenteeism but job involvement has been found to more significantly predict turnover than absenteeism (Blau & Boal, 1987). The benefits of high job involvement are not limited to the organization. Positive involvement in job results in highly motivated individuals; personal contentment and satisfaction in the work employees undertake (Hackman & Lawler, 1971; Kahn, 1990; Lawler & Hall, 1970). In other words, highly engaged employees perform beyond expectations, have strong emotional ties with the work as well as the organization and seek contentment and happiness in their job. Highly involved employees contribute generous efforts towards achievement of
organizational objectives and have fewer chances of leaving the organization (Kahn, 1990; Pfeffer, 1994).

In education sector, Mantler & Murphy (2005) advocated,

“Faculty members tend to have high job involvement; work is a core aspect of their personal identities (Kanungo, 1982). They tend to get deeply drawn into and preoccupied with their work related issues even when not working”

A downside to JI has been cited by Naughton (1987) wherein high JI turns employees into workaholics who may not give due consideration to critical activities on the job; rather they waste their time and effort on time consuming tasks.

Job involvement has been referred to be comparable to organizational commitment in certain aspects because both relate to the extent of an individual’s association with work and the organization. However, they are both independent constructs, where job involvement is mainly concerned with one’s identification with work related activities and organizational commitment refers to an individual’s association with the organization (Brown, 1996). Also, job involvement refers to the extent to which a job is important to an individual’s self-worth and organizational commitment refers to the degree to which one identifies with his or her organization and intends to maintain relationship with it. To be precise, job involvement is work or job specific and organizational commitment is an organization specific concept. In Blau & Boal’s (1987) terms, ‘Job involvement and organizational commitment function as interactive orientations and they complement each other as predictors of turnover and absenteeism’.

1.11.1 Job Involvement- definition

The roots of the concept of Job involvement have been traced back to Maslow’s need hierarchy theory, in which he describes the need for self-esteem in relation to work (Baba, 1979). Lodahl and Kejner (1965) were pioneers in putting forward an operational definition and a scale for measurement of the concept.

Various interpretations of job involvement have been purported by the researchers- as the degree of importance work holds in one’s life, extent to which a job gratifies an
individual’s significant needs, the contribution of job to one’s self-esteem or self-worth and finally the psychological identification with one’s job. Numerous definitions of job involvement have emerged from an extensive review of the published research from 1960s till date. The Box 1.8 below represents some important definitions of job involvement.

**Box 1.8 Definitions of Job Involvement**

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>The degree to which a person is identified psychologically with his work or the importance of work in his total self-image and the degree to which a person’s work performance affect his self-esteem.</td>
<td>Lodahl &amp; Kejner (1965)</td>
</tr>
<tr>
<td>The degree to which a person perceives his total work situation to be an important part of his life and to be central to him and his identity because of the opportunity it affords him to satisfy his important needs.</td>
<td>Lawler &amp; Hall (1970)</td>
</tr>
<tr>
<td>The degree to which the job situation is a —central life interest.</td>
<td>Saleh &amp; Hosek (1976)</td>
</tr>
<tr>
<td>The degree to which the job situation is central to the person or his identity.</td>
<td>McKelvey &amp; Sekaran (1977)</td>
</tr>
<tr>
<td>The extent to which an employee perceives he /she is connected to a job.</td>
<td>Farrell &amp; Rusbult (1981)</td>
</tr>
<tr>
<td>The cognitive belief state reflecting the degree of psychological identification with one’s job.</td>
<td>Brooke, Russell &amp; Price (1988)</td>
</tr>
<tr>
<td>The extent to which the job satisfies his or her salient needs.</td>
<td>Elloy, Everett and Flynn (1991)</td>
</tr>
<tr>
<td>The degree to which one is cognitive preoccupied with, engaged in and concerned with one’s present job.</td>
<td>Paullay, Alliger, &amp; Stone- Romero (1994)</td>
</tr>
<tr>
<td>The notion that being immersed in your work increases motivational processes which in turn affects performance and other relevant outcome (turnover, absenteeism).</td>
<td>Dieffendorff, Brown, Kamin, &amp; Lord (2002)</td>
</tr>
</tbody>
</table>

*Source: Adapted from Doobree (2009). Job Involvement among bank managers in Mauritius.*
Based on past literature, Saleh and Hosek (1976) put forth four dimensions of Job involvement:

a. Job or work as central life interest.
b. Active participation of an individual in the job.
c. Individual’s perception of job performance as attuned with his or her self-concept.
d. Individual’s perception of performance an integral to self-esteem.

But their concept of job involvement was disapproved as it is too wide in its scope encompassing the antecedents and consequences of job involvement rather than considering it as a psychological construct.

Rabinowitz & Hall (1977) expressed job involvement in two forms i.e. performance self-esteem contingency and psychological identification with job. They also stated that psychological identification represents a more accurate depiction of job involvement than performance self-esteem contingency (Pathak, 1983; Doobree 2009).

According to one approach, job involvement reflects an individual’s personality and values which influence the extent of involvement in the job and the second approach postulates that certain characteristics in the work situation determine an individual’s level of association with the job (Chughtai, 2008).

Various descriptions of job involvement converge on a common idea that job involvement refers to the degree of psychological association of an individual with his or her job and this association depends on the importance a job holds in one’s life which in turn is a reflection of extent to which a job satisfies eminent needs of an individual. Job involvement has been found to have significant impact on performance of individuals (Baba, 1979; Pathak, 1983, Chughtai, 2008), reduced turnover (Fletcher, 1998), organizational effectiveness (Bhatia, Deep & Sachdeva, 2012) and organizational commitment (Omoniyi & Adedapo, 2012; Asil et al., 2013).

Numerous research studies have examined the impact of EI on JI and have found a positive (Akintayo & Babalola, 2012) as well as weak (Ravichandran, Arasu & Kumar, 2011) association between the two constructs.
1.12 The Research Framework

A brief description about what the research intends to achieve is shown in the Figure 1.14 below:

**Figure 1.13 Research framework of the study**

Thus, the research intends to investigate the impact of direct impact of EI on OC, JI and TE, a combined effect of all three independent variables (EI, OC and JI) on TE (dependent variable). Further the relationships described in the study are indicated by the numbers on the lines interlinking various variables. These relationships are:

1. Emotional Intelligence and Performance of teacher leaders.
2. Emotional Intelligence and Organizational Commitment Relationship
3. Emotional Intelligence and Job Involvement Relationship
4. Organizational Commitment and Performance of teacher leaders.
5. Job Involvement and Performance of teacher leaders.
6. Combined effect of Emotional Intelligence, Organizational Commitment and Job Involvement on Performance of teacher leaders.

The term performance in the study needs special explanation because it is not a routine measure of effective outcomes. The study builds upon a new perspective on the role of teachers as transformational leaders. Hence, performance of teacher leaders in the study is defined by the extent to which they exhibit transformational leadership behavior in the institution they work in. Since students are the end users of teaching service and so far student ratings are universally used in assessment of effective teaching, the performance of teachers as transformational leaders has been measured by student ratings. Therefore, the term performance here is conceptualized as the extent to which students perceive their teachers to exhibit TL behavior.

1.13 Rationale for the research

Globalization has posed a challenging and competitive situation for the higher education system in the country. Recognising the importance of higher education, teachers and youth in development of the nation, Indian government is aggressively pursuing its goal to establish the country’s higher education system as a provider of world-class education. This requires considerable revamp of the universities including infrastructural, operational and administrative changes in the institutions of higher education. UGC has been pragmatic in its approach to research and recommend substantial improvements in the higher education institutions. A significant step in this regard is the recommendation for greater autonomy to public institutions (CABE, 2005). Greater autonomy implies institutions will witness decline in public funding of higher education and significant reduction in government interference in administrative and functional matters of universities. This would necessitate teachers to assume greater responsibilities. Teachers would also see their roles expanding and performance pressures increasing in such a scenario. Furthermore, teachers would need competencies to be effective in their performance.

From an organizational behaviour perspective, humans and emotions are inseparable and institutions are emotional places. Therefore, it becomes imperative for these organizations or institutions to identify how their employees’ (teachers’) emotions influence their performance. The performance of teachers as measured in the study refers to their
effectiveness in exhibiting TL behaviour i.e. how far they have been perceived as transformational leaders by their students. One concept of emotion which has caught the attention of the researchers due to its association with professional success and effective leadership performance is ‘Emotional Intelligence’. Incepted by Mayer & Salovey in 1990 and popularized by Dr. Daniel Goleman with his landmark book titled ‘Emotional Intelligence- Why it matters more than IQ?’ in 1995, EI has so far been related with performance of professionals in various organizations. Several researchers have found conclusive evidence of the strong association between EI and effective leadership performance (Nel & Villiers, 2004; Bradberry & Su, 2006; Ayiro, 2009; Mwangi et al., 2011; Mir & Abbasi, 2012). Further emotionally intelligent individuals have been found to be more committed to their organizations (Cichy et al., 2007; Moradi & Ardahaey, 2011) and highly involved in their jobs (Carmeli, 2003; Akintayo, Babalola, 2012).

However, there is a dearth of research regarding the impact of teachers’ EI on their effectiveness, measured in terms of exhibiting transformational leadership behavior. Teacher leadership is a well-researched concept but there is limited empirical evidence in support of exercise of transformational teacher leadership by educators and its impact on students. Leadership research in the context of educational institutions has mainly considered institution head as the transformational leader and teachers as followers with the purpose of improving the institution effectiveness (Barker, 2007). So far very few studies have explored the impact of classroom teacher leadership and its outcomes (Pounder, 2005; Noland, 2005; Harrison, 2011; Bolkan & Goodboy, 2009).

Considering the important role of EI in determining performance of professionals in organizations and need for enhancing teaching effectiveness through inclusion of transformational teacher leadership in the classrooms, this study intends to describe the relationship between EI and performance of teachers in higher educational institutions. The term performance here refers to teaching effectiveness with teachers behaving as transformational leaders. This study focuses on students’ evaluation of their teachers’ transformational leadership behaviour. Thus, effective teaching here is based on four transformational leadership dimensions as put forth by Bass & Avolio (1990).
Furthermore, teachers are an integral part of the higher education system. Therefore, a committed academic staff can be a pillar of strength of an institution because high commitment leads to greater acceptance of management demands by teachers and smooth transition during organizational change. Also, performance of individuals in organizations is influenced by their commitment towards the organization and their involvement in their jobs.

Highly committed employees have been found to perform better (Shore & Martin, 1989; Dixit & Bhati, 2012; Qaisar et al., 2012). At the same time employees with greater involvement in their jobs are found to be better performers (Baba, 1979; Chughtai, 2008; Omoniyi & Adedapo, 2012). Moreover, high EI has been associated with greater commitment among employees (Mohammadkhani & Lalardi, 2012; Nordin, 2012). Emotionally intelligent individuals are found to be more involved in their jobs (Najafpour, 2008; Ravichandran, Arasu & Kumar, 2011; Akintayo & Babalola, 2012).

Therefore, study also undertakes to identify the impact of EI of educators on their organizational commitment and job involvement.

On the whole, the research has been undertaken to investigate whether EI of teachers is significantly related with their transformational leadership behavior, their organizational commitment and job involvement. The investigations will provide insights into the relationships between EI and the three dependent variables i.e. OC, JI and TL. The results from the research will be valuable for substantiating the importance of Emotional Intelligence in TL behavior of teaching professionals in imparting engineering and management education in universities and for validating whether EI determines a teacher’s loyalty and concern towards his/her organization and job respectively. Further, recommendations will be made for improvement in teaching from human resource management perspective which may be instrumental in designing and developing selection and training programs for teachers and gearing them for a novel approach to effective teaching.
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