CHAPTER 1

INTRODUCTION

If knowledge is fundamental to globalization, globalization should also have a profound impact on the transmission of knowledge.¹

Education as an instrument of economic productivity, politicization, and enculturation can play an important part in the humanization of the process of globalization.²

1.1 Economics of Education

The term ‘education’ is defined as the process of training and developing, knowledge, skill, mind, character etc. It is recognised as an engine of social and economic development. Ancient scholars in many countries highlighted the importance of widespread education in economic development since long. Education, Plato believed, is indispensible to the economic health of a good society. It makes citizens ‘reasonable men’. Since education has high value in the society, Plato argued that a considerable part of a community’s wealth must be invested in education (Tilak, 2010).

Expenditure incurred on education is regarded as an investment that produces returns comparable with investment in physical capital activities. This investment contributes significantly to enhance the productivity of individuals and society as a whole. In almost all countries, provision of education, is an important traditional function of the state, next to defence. But in recent years this function of the nation has gained a new meaning and dimension as a result of increasing awareness of the relation between education and economic growth and development. The economic value of education in the process of economic development is broadly evaluated by the resources involved in the formation of human capital and the resulting increments in the productivity of labour force. The perspective of economist on the economic role of education has undergone transformation over time.

The role of education in economic and social development was widely recognised from the days of Adam Smith. Even prior to Adam Smith, we find significant references in the literature to the equity role of education, besides the economic role in the creation of wealth of nations (see Vaizey 1962 & Blaug 1975). It was William Petty who first advocated equitable distribution of education. Nehenia Green and James Stewart of the Mercantilist period also advocated mass education so as to raise the productivity of agriculture in particular and society’s progress in general (Tilak, 2010).

The classical economists recognized the beneficial impact of education, but they did not analyze the macro relationship between education and economic development. However, they did analyze the nature of micro relationship between the education of a person and the benefits he receives. The direct benefits come through the maintenance of civic order and adoption of family limitation (Latchanna & Hussein, 2007). Adam Smith, a classical economist strongly believe that the production of human capital yields a considerable return in the form of greater lifetime income and recognized the importance of education and labour power in the creation of wealth. He strongly emphasized the need of education for the moral and civic peace. Later, Ricardo and Malthus described education as a means of inculcating valuable habits, which will lead to limiting family size (Das, 1997).

In a socialistic school of economic thought, Karl Marx viewed education as a factor for reducing human miseries and believed that human dignity and productive efficiency would form part of benefits of education. He considered education as one of the correctiveness to the distortion and imbalances generated by the capitalist mode of production. Amongst all the neo-classical economists, Marshall was interested in measuring the benefits of education. He emphasised that “the most valuable of all capital is that invested in human beings” and that “knowledge is our most powerful engine of production; it enables us to subdue Nature and force her to satisfy our wants”. Keynes was not interested in this type of study; he was more pre-occupied with short-run theory of output and employments (Latchanna & Hussein, 2007). The post Keynesian economists such as Harrod, Domar and Joan Robinson recognized the importance of human capital and laid emphasis on the factors that determine rate of economic growth. The studies subsequently undertaken in this direction have revealed that education is one of the critical elements of economic development (Veena, 1987).
Thus, the evolution of the theory of human capital ultimately provided a rationale for a massive expenditure on education in the developing countries because education helps in increasing the efficiency of the people there by the national income. Earlier, economists like Adam Smith, Marshall and Fisher have discussed the importance of human capital. But it was Theodore. W. Schultz who had studied the role of human capital in a very comprehensive manner. Theodore W. Schultz’s papers and talk drew attention of the economists towards the “Economics of Education” in which he demonstrated the role of human capital and investment in education. Economics of education is defined as the study of how men, women and society choose to employ scarce resources to produce various types of training, the development of knowledge, skill and so forth. Economics becomes integrally connected with education, which guides and modifies the activities of human beings in various ways and in diverse areas of activities. The reason for this is that education modifies human behaviours in all aspects by developing his mental powers of thinking, planning and evaluating so that he is able to lead a very effective life, promoting social welfare with his progress and development (Latchanna & Hussein, 2007).

The birth of economics of education by Schultz’s, took place first at the Presidential Address of the American Economic Association in 1960 (Schultz, 1961) and secondly in his Noble Lecture in 1979 (Schultz, 1981). Economics of education with its concepts of human capital has revolutionized economics thinking and has emerged as an important discipline. Schultz’s established beyond doubt that human capital is an engine of economic growth. Human capital is a concept that includes investment made in man through various means such as education, which increases the productivity and earnings of an individual, ultimately leads to a higher level of economic growth of a nation. Later, this concept of economics of education was enriched by G. S. Becker, E. F. Denison, Mary Jean Bowman, and Mark Blaug and so on. The rationale behind introducing the concept of human capital and its definition comes out clearly but only in few words in Schultz (1960):

*I propose to treat education as an investment in man and to treat its consequences as a form of capital. Since education becomes a part of the person receiving it, I shall refer to as Human Capital…it is a form it renders productive service value to the economy…*
The seminal works of Becker (1962 & 1964; & Denison, 1962) has also incorporated the role of education in human capital accumulation for economic growth. In these models, human capital contributed to the enhanced productivity of the labour force, and subsequent growth in national income. Becker (1964) believes that human capital is similar to physical means of production like factories and machines (1) one invests in human capital via education, training and medical treatment (2) one’s output depends partly on the rate of the human capital one owes. Hence, human capital is a means of production into which additional investments yields additional output. Further, the abundant research that followed Schultz’s 1961 address, which was later aptly described by Mary Jean Bowman (1966) as “human investment revolution in economic thought”, has clearly established that one of the most efficient and effective means of development of any society lies in the improvement in its human capital, particularly education.

The human capital theory suggests that individuals and society gain substantial economic benefits from investments in people. Blaug (1970) observed that people with more education earn on an average higher income than those with less education. In the light of this, he explained that cost incurred by individuals in acquiring more education constitutes an investment for their own future earning capacity. He was of strong view that “investment in education accelerates economic growth”. Further, econometrics studies provide very strong and consistent evidence that more educated workers are more productive and that they earn higher salaries (Psacharopoulos and Patrinos, 2004). Hence, the human capital theory propounded by Schultz laid a strong foundation for treating education as an investment in human beings and also an important source of economic growth.

Thus, the role of human capital has been recognized and acknowledged in the economic literature from the 1960s onwards. Of the various components of human capital, education and health have been found to be most important. The core of the human capital theory lies in the thesis that education increases productivity of the population in general and of labour force in particular, leading to increase in individual earnings and thereby contributing to economic growth and reduction in poverty (Tilak, 2010). Synchronising with the human investment revolution in economic thought, many countries around the world, particularly the newly independently developing countries expanded their educational systems and made
investment in education. The rates of growth of educational systems in many countries exceed the rates of economic growth (Tilak, 2005). This is not surprising, as “during the process of economic modernisation the rate of increase in human capital is higher than that of reproducible physical capital” (Schultz, 1986).

India stands as an outstanding classic example of massive expansion of educational systems among the third world countries. In the post-independent India, particularly since the inception of the plan era (since 1951), an educational explosion has taken place, which may be described as an “educational miracle”. The ‘miracle’ is particularly important when one examines in the context of the colonial legacy. After independence, India had started almost from the lowest and has made significant progress during the post-independence period. The progress in educational system mainly happens due to the government of India, which recognised the pivotal role of education in development process. Government has accorded special importance to education not only in the country’s constitution but also in the Five Year Plans (Tilak, 2005). Heyneman (1980) verified that investment in education in India is “economic”. In 1986 India adopted a National Policy on Education, which stressed: “Education is a unique investment in the present and future”.

The study concluded that, education in every sense is one of the fundamental factors of development and human capital is recognized as an agent of national development in all countries of the world. Education raises people’s productivity and creativity and promotes entrepreneurship and technological advances. In addition, it plays a very crucial role in securing economic and social progress for improving income distribution. Education provides a foundation for development, the groundwork on which much of our economic and social well-being is built. It is universally accepted as a central component of human capital. Thus, the contribution of education to development is manifold- economic growth, reduction in poverty and income inequalities, improvement in the health and nutrition, reduction in population growth, improvement in life expectancy, reduction in crime and violence, deepening of democracy, and in improving civil, social and political aspects of development is well recognised (Tilak, 2008).

1.2 Higher Education: Context and Significance

Higher education is also an important form of investment in human capital. In fact, it can be regarded as a high level or a specialised form of human capital,
contribution of which to economic growth is very significant. It is rightly regarded as the “engine of development in the new world economy” (Castells, 1994). Higher education plays significant role in the rapid industrialization of the economy, by providing manpower with professional, technical and managerial skills. In the present context of transformation into knowledge societies, higher education provides not just educated workers, but knowledge workers to the growth of the economy. It creates attitudes, and makes possible attitudinal changes necessary for the socialization of the individuals and the modernisation and overall transformation of the societies. Most importantly, it helps, through teaching and research, in the creation, absorption and dissemination of knowledge. It also helps in the formation of a strong nation-state and, at the same time, helps in globalization. Lastly, higher education allows people to enjoy an enhanced ‘life of mind’, offering the wider society, both cultural and political benefits (TFHES³, 2000).

Emphasis is rightly placed on how higher education can better serve society and promote international cooperation. It is to be realised that higher education institutions in developing countries play an important role in setting the academic standard for primary and secondary education. They are also responsible for not only providing the specialised human capital in order to corner the gains from globalisation, but also for training inside the country, provide policy advice, etc (Rena, 2010). Thus, higher education is one of the most important inputs that influence the all round development of any nation.

India has made considerable progress in the field of higher education, particularly, in science and technology and having third largest number of scientific and technical personnel in the world. It has also become a major player in the knowledge-based global economy. Skill based activities have made significant contribution to this growth. Such activities depend on the large pool of qualified manpower that is fed by its large higher education system. Thus, it is now widely accepted that higher education has been critical to India’s emergence in the global knowledge economy (Agarwal, 2009). India has a population of 1.2 billion which is 16.0 per cent of the world’s population. It occupies 2.4 per cent of the total area of the world and is the 7th largest country on the earth. The development of any country

mostly depends upon its growth of education in society. Higher educational institutions are contributing much to the national development by way of providing specialised knowledge and skilled manpower. Therefore, higher education is considered to be an important instrument for the development of any country, particularly for a developing country like India.

1.3 Globalization: Conceptual Framework

Over the last few decades, globalization has become a central component in a number of academic discussions; its impact and influence being increasingly difficult to be ignored. Globalization is not a new phenomenon. It is a process with long history stemming from the early sixteenth and the late nineteenth century (UNDP, 1999; McGinn, 1997). However, from 1980s, globalization has been drastically accelerated and become an irreversible (Altbach and Knight, 2007) and most influential process that seeps into all fields of human life and academic disciplines. Jacques Hallak (1998) during the conference on “Educational Reconstruction and Transformation of Education: Challenges for the 21\textsuperscript{st} century” defines globalization is the combination of much freer trade in goods and services combined with free capital movements. For the past few years, we observed a high acceleration in this trend due to a political and ideological environment eminently favourable to its development and rapid advances in technological innovation, especially in the era of telecommunications.” The word ‘Globalization’ now connotes a context in which physical boundaries of countries have no relevance or importance and where all the nations join their hand with each other and create a kind of socio-environment to do business or any commercial, cultural and educational activities in which every participant nation should be benefited. It can be said that, the origin of globalization involves economic factors with trade and finance liberalization (Chaudhuri, 2011). Thus, globalization is a multifaceted concept whose definition is somewhat disputed (Tikly, 2001). Despite the fact that the definition of globalization has been attempted by hundred of authors and distinguished speakers, the word continue to mean ‘different things to different people’. It is generally described as a process that has reshaped economic, political and cultural structures throughout the world. Central to this concept is the shift of the organization of power from national to supranational levels and from the political to the economic arena (Langthaler, 2009/10).
There are many definitions of ‘globalization’, as a multitude of global interactions are put under its broad banner, ranging from the expansion of cultural influences across borders to the enlargements of economic and business relationships throughout the world. It is widely defined as a process of integration of national economies with the world economy, but globalization is much more than economic integration; it encompasses issues of power, culture, environment, etc. (Collier and Dollar, 2002).

In the early 1990s, globalization was welcomed with euphoria all over the world, as it was expected to bring unprecedented prosperity to all, with increased trade and flows of foreign direct investment and skilled labour between countries (Stiglitz, 2006). But several countries slowly realized that ‘globalization is a set of political-economic arrangements for the organization of the global economy, driven by the need to maintain the capitalist system rather than by any set of values’ (Dale, 2000). However, globalization should be examined from all aspects and then nurture and promote the good parts and mitigate or slow down the bad parts.

Sinkler (2001), categories the globalization into three phases:

(a) **Pre-Modern Globalization**: It is the period of conquest that saw the colonization of vast areas of the world by European military and economic powers. The period of industrialization and growth of international capitalism, built on the racial and economic rationalizations of slavery and subjugation.

(b) **Modern Globalization**: Neo-colonialism and economic consolidation, which is the period of consolidation and corporate expansionism following the depression of 1930s and which led to the ‘reassessment to the international trade’ and the emergence of the Bretton Woods system of global economic and financial management through the establishment of the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development-IBRD i.e. World Bank, and the General Agreement on Tariffs and Trade-(GATT).

(c) **Post-Modern Globalization**: The era, in which we are living, is considered most comprehensive and expansive period of economic globalization. It is characterized by internationalization of production (global restructuring), rapid technological change in information and telecommunications, trade
liberalisation accompanied by attempts to remove all restrictions on foreign
direct investment (FDI), the rise and extreme mobility of financial capital as a
global player and its impact on national economies.

The first phase may be described as unknown attempt towards globalization. But later two phases are the steps taken with full awareness about the individual economies changing into world economy. The world’s most ancient civilization Indus valley civilization known in the world history was using the most basic tool of globalization ‘trade with other societies’. The trade of Indus valley was spread to the far off society like Mesopotamia (Iraq) (Romila, 2001). The seeds of modern globalization may be seen in the pre-world war first period. Before World War First, the world economy followed the free trade policy and different countries specializing according to their comparative cost advantages. During this period, international standards were agreed upon telegraphy and signalling. After Second World War, deliberations for bringing about smooth functioning of world economy were organized. At Bretton Woods, the agreement was reached for establishing two international institutions, IMF and IBRD in 1944. GATT was also formed in 1948 for guiding smooth conduct of world trade operations. Air travel and development of international communication enhanced the progress of international business. It was the time for germination of those seeds, which were sown a long time ago.

The third phase of globalization is characterized by very rapid technological advancement in transport and communications, a high rate of flow of labour, trade liberalization accompanied by attempts to remove all restrictions on Foreign Direct Investment (FDI) and higher rates of economic growth. This phase, though predominantly economic in its nature, impacts all sectors of society, including higher education systems and institutions, in various ways all over the world (Tilak, 2011). As Bassett (2006) observed, ‘globalization is not simply an economic issue. It is a broad force, affecting cultural, political, social, environmental, and economic and a myriad of other areas of interaction, and higher education falls in the crosshairs of all these areas’. In fact, higher education has now become an integral part of the globalization process in many parts of the world (Jowi, 2009).

It should be recognized that globalization today is markedly different in some ways from what it was in the past. There are new markets like the foreign exchange operations and capital markets that are globally linked and operate 24 hours a day.
The new actors like multi-lateral corporations; World Trade Organization (WTO), International criminal law system, international network of NGOs, new rules and norms (e.g., conventions and agreements in global environment, human rights etc.) and new and faster tools of communication including internet and cellular phones. The role of English as a global language is also important (Kolhatkar, 2005). In short, the world today is one in which people’s lives are being linked more closely and more immediately than ever before through shrinking space, shrinking time and disappearing borders (UNDP, 1999).

Now, we discuss globalisation of Indian economy which was broadly undertaken in economic reforms. Thus, we need to look at what economic reform stands for. Reform means some changes to get improvement or some improved changes in the existing condition for a better result. Any change in an economy which can affect its structure, working and institutional pattern is an economic reform. As Amartya Sen (2005) rightly says “some existing arrangements appear to us to be not right and we want to put them right.” India was passing to the same condition and to put it on the right path, reforms were introduced in a phased manner. During 1980s, India partially joins globalization by adopting the policy of liberalisation and eliminating the restrictions up to some extent. In the late 1980s, India suffered with severe balance of payment problems and to counter these problems privatisation and liberalisation policies were adopted. The real thrust to the process of globalization was provided by the New Economic Policy introduced by the Government of India in July 1991. India, by following the terms and conditions of IMF and World Bank, adopted stabilisation and structural adjustment programme and reformed the policies regarding exchange rate adjustment and rupee convertibility, import liberalization and opening up to foreign capital.

Thus, globalization was introduced in the Indian economy through various economic reforms. So we can say that these economic reforms are nothing but the step towards globalising the Indian economy. The process of globalization has affected all aspects of human life and has mixed effect on the economy. In politics, it continues to threaten the legitimacy and influence of the nation state as it yields to international agreements, international institutions and new forms of sovereignty geared towards global governance (Jr, 2003). From economic standpoint, it has deepened and expanded global trade causing structural changes in production and
distribution based on comparative competitiveness of economies. It has also exposed the global village to systematic risks associated with the integration of the world economy including, among others, environmental destruction and spread of crisis. From sociological perspective, through various forms of networks, globalization has established a real global civil society by galvanizing and linking various national non-governmental organizations on common issues of public action aimed specifically to counter the effects of globalization on various aspects of society. In the cultural sphere, the establishment of global communication industries has threatened and to some extent weakened national values and traditions through the emergence of multiethnic and multicultural societies towards a global culture (Brunner, 2001).

Globalisation has benefited education through rapid developments in technology and communications. It brings changes within university system by exchanging ideas, values and knowledge. This led to the changing roles of students and teachers and shift from industrial society to knowledge based society. It makes possible attractive business opportunities and rapid growth of knowledge and innovations and the emergence of interdependence among nations of the world promising a peaceful co-existence (Ahmad, 2003). As cited by (Carnoy, 2005), information and innovation are two major foundations of globalization. Both of them are highly knowledge intensive. Because knowledge is easily portable it lends itself to globalization. Hence, knowledge is the most powerful resource in the hands of people to form the base for development and to deal with the negative effects of globalization.

1.4 Globalization vs. Internationalization

Scholars (Knight, 2003; Marginson, 2000; Scott, 1998; Wende, 2002) have been intensively discussing conceptual differences between globalization on the one hand and internationalization on the other.

For the purposes of this study, globalisation is defined as “the flow of technology, economy, knowledge, people, values, ideas across the borders, which affects each country in a different ways due to a nation’s individual history, traditions, culture and priorities”, education is also one of the sectors impacted by globalization (Knight, 2004). It is different from internationalization which in this study is defined according to Knight (2006) as “the process of integrating international, intercultural
and global dimensions into the purpose, functions (teaching, research and service) and delivery of higher education”. “Internationalization of higher education is one of the ways a country responds to the impact of globalization yet, at the same time respects the individuality of the nation”.

The UNESCO in its position paper (2003) brought out the salient issues relating to the internationalization of higher education. It points out that the two terms, ‘Globalization’ and ‘Internationalization’ is often mistakenly used interchangeably. It makes a careful distinction between the process of globalization and internationalization of higher education. It characterizes globalization as “a multifaceted process with economic, social, political and cultural implications for higher education. It poses new challenges at a time when nation states are no longer the sole providers of higher education and the academic community no longer holds the monopoly on decision-making in education. Such challenges not only address issues of access, equity, funding and quality but also those of national sovereignty, cultural diversity, poverty and sustainable development. A further and even more fundamental concern is the emergence of cross-border higher education provision and trade in education services which brings education within the realm of the market and that this may seriously affect the capacity of the state to regulate higher education within a public policy perspective. Declining policy capacity of the state could affect weaker and poorer nations and benefit the more prosperous ones”.

UNESCO’s Position Paper interprets Internationalization “as one of the ways in which higher education is responding to the opportunities and challenges of globalization. It includes a broad range of elements such as curriculum, teaching/learning, research, institutional agreements, student/faculty mobility, development, cooperation and many more” (Anandakrishnan, 2008).

According to Tilak (2011), globalization in the area of education can be defined as unification of the world’s education system by facilitation of the free flow of students and teachers, through reduction of all the various kinds of barrier that exist. It denotes the process by which national and regional education systems become integrated with the rest of the world’s systems. The internationalization of education implies the imparting of knowledge, skills and values which have universal appeal and application. It also implies that a curriculum becomes cross-national and intercultural in nature. Internationalization of education can also takes place in such a
form to help students acquire international skills without having to leave the country. At times, this also involves a shift from producing for national markets to international markets. This implies changing the orientation of courses offered in the domestic universities, which are sometimes referred to as “internationalization at home” (Knight 2003a).

Globalization implies higher education becoming a designed activity to introduce an international and multicultural outlook to suit the requirements of a global labour market centred on knowledge production. Institution of higher education in the context of globalization became yet another group of organizations producing and selling a good or a service for the global market for profit. In other words, under this frame of analysis, higher education institutions become corporate entities functioning on the basis of the operating principles of the corporate sector (Varghese, 2008). ‘Internationalization’ is defined as the variety of policies and programs that universities and governments implement to respond to globalization. These typically include sending students to study abroad, setting up a branch campus overseas, or engaging in some type of inter-institutional partnership (Altbach et al, 2009).

Thus, the two terms viz. internationalization and globalization are not exactly identical but they are very closely related and even overlapping in their nature, scope and effects. Knight (2003) makes the distinction: “internationalization is changing the world of education and globalization is changing the world of internationalization”. Universities and higher education system are agents of both internationalization and globalization. Thus, both globalization and internationalization have changed the very landscape of higher education.

1.5 Globalization in the Context of Higher Education

Globalization, in education mainly refers to the emergence of different forms of trans-border educational provision and of a global education market, which tends to blur national systems of education (Varghese 2009). It means that education opportunities are wider & borderless (Damme, 2001). Globalization can simply be defined as the process to “the broad economic, political, cultural, technological and scientific trends that directly affects higher education and is largely inevitable in the contemporary world” (Altbach, 2006). Higher education was always more
internationally open than most sectors because of its immersion in knowledge, which never showed much respect for juridical boundaries. In global knowledge economies, higher education institutions are more important than ever as mediums for a wide range of cross-border relationships and continuous global flows of people, information, knowledge, technologies, products and financial capital (Scott, 1998a).

In the era of globalized knowledge economy (Altbach, 2002), higher education is at crossroad which results in conflict between its traditional and modern roles. The traditional concept and the very mission of university have changed today. Earlier the sole purpose of the university was the advancement and transmission of new knowledge. The universities and centres of higher learning were required to build a set of skills, attitudes and values for effective participation in civil society. Today, they are required to build ‘skill sets’ to be bought internationally as a commodity. The for-profit institutions focus on knowledge and skills that have immediate pay-offs, unlike the traditional universities and colleges, which aimed at providing liberal education to their students in order to make them free from prejudice and ignorance and help them develop their own positions and figure out how to live a good life (Gupta, 2008). Today, universities are required to prepare their students in such a way that they are able to deliver ‘just-in-time’ knowledge for immediate gratification of the market economy. Moreover, they are also required to provide facilities to non-traditional students and working adults in order to enable them to constantly upgrade their knowledge and technological skills on lifelong basis.

Traditionally education was considered the responsibility of the state and the expenditure on the education were treated as an investment into social good. It played an important role in the process of socialization of the members of new generation in the interest of larger community, besides developing the individual self. Operating under the aegis of nation state, the pedagogical process, finances, methods of teaching and learning came under governmental control. The prime objective of educational system became ‘creating loyal and competent citizens’. With the emergence of globalization, the sanctity of ‘nation-state’ and its sovereignty is badly undermined. Now, the decisions of supra-national institutions shape and constrain the national policy options. Higher education is no exception to this silent revolution all over the world. It has to work under ‘shifting roles and changing rules’ (Dijk, 2002).
Thus, globalization associated with liberalization and privatization of education, has changed the basic character of higher education, it has made higher education a market oriented activity attracting foreign capital, inviting competition and producing a profit higher than other sectors. Knowledge has become an international good to be traded and it transcends national boundaries faster than capital and people. There is a paradigm shift in education from social services to business education with commercial interest. Higher education has long been regarded as a valuable institution for training, development, and research. In recent years, (due to various income generating abilities of some institutions of higher education) it has come to be known as a multi-trillion business (UNESCO, 2000).

In the present era of globalization, and in an international regime controlled by the World Trade Organization (WTO), education is a service that can be traded through different modes recognised under the General Agreement on Trade in Services (GATS). GATS include all levels of educations, but the main focus is on higher education, since most cross-border activities take place in domain of higher education. Internationalising education services is the new mode of services, which has gained much attention due to GATS. The aim of the GATS is to liberalise and increase international trade in educational services. Trade in educational services is already a major business in some countries. It has played an important role in the growth and development of the economy. Due to the importance of this sector, India is obliged under the WTO to open up its higher education sector to foreign providers, to end public subsidies, and to make a formal commitment to the GATS, although strictly speaking there is no obligation of any kind. India is still keeping final commitment to the GATS on education pending, education in India is already becoming internationalized, and trade is already taking place under all modes, not necessarily within the GATS framework.

An important mode of globalized higher education is cross-border higher education; which involves providers, programmes course materials, teachers or students mobility. Cross-border education, in the context of globalization, has become a market driven activity involving numerous providers and attracting thousands of students who are willing to buy these services at international prices. The providers are more often investors than educators, and the profitability of the sector attract them

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to this area of business. The international markets for students account for billions of dollars, and hence there is fierce competition among higher education institutions to attract foreign students and to generate income and profit. Universities in OECD countries such as the USA, UK, Germany, France and Australia attract a large number of foreign students and income from these students constitute a good share of the budgets of many universities in some of these countries. In 1990, there were 1.2 million international students in the world (UNESCO, 1997) which increased to 3.3 million in 2009 (GED, 2011). Some of the projections (Bohm, et al, 2002) indicate that the demand for cross-border higher education will increase to 7.2 million by 2025. Thus, it shows that, globalization is the most visible aspect of student mobility. With globalization, there has been a steady increase in the student mobility across the world.

Globalization has also contributed to an increasing demand for a larger quantity and better quality of higher education graduates. Quantity and quality of highly specialized human resources determine their capability in the global market. It is now well recognized that, benefits of globalization accrue to the countries with highly skilled human capital and it is a curse for the countries without such specialized human capital. Developing and transition countries are further challenged in a highly competitive world economy because their higher education systems are not adequately developed for the creation and use of knowledge. Converting the challenges into opportunities depend on the rapidity at which they adapt to the changing environment (Rani, 2004).

The study concluded that, globalization has created tremendous impact on higher education in the first decade of 21st century, because the trends in the knowledge economy have brought about revolution in the new millennium after the widespread expansion of Information and Communication Technology (ICT). Such knowledge revolution has increased the impact of global interaction in the education system in general and higher education in particular. Externally, there has been an unprecedented change both at national and global level. Internally, universities in developing countries have experienced various demands that challenge not only previously existed university governance, institutions, management and operational systems but also academic life. Thus, there is a need for higher education in
developing countries, to have greater flexibility to be more responsive to the impact of globalization (Rena, 2010).

### 1.6 Statement of the Problem

India has made considerable progress in the field of higher education in terms of increased number of universities, colleges, student enrolments and teachers during post-globalization period. Despite significant progress, there were 40 per cent and 35 per cent shortage of teachers in state and central universities, respectively (Ernst & Young, 2012). Although, enrolment in higher education institutions in India has increased substantially, but there are wide-variations among stage-wise and faculty-wise enrolment, which is not beneficial for sustainable development of the economy. Despite the huge higher education system in India, the enrolment ratio is still around 17.9 per cent of the relevant age group of 18-23 years in 2011-12, which is very low when compared with the average of the world i.e., 26.7 per cent as well as average of the developed countries i.e., 57.7 per cent. In addition to this, there are wide regional disparities in the access parameter of higher education among states and union territories in India.

The post-globalization period has witnessed a steady increase in the private players in the domain of higher education. The increasing participation of private players has resulted in changing pattern of higher education. They are mainly biased towards professional courses like engineering/technology which has high market demand. This is likely to hamper the basic research output. Further, higher education has become a marketable commodity, a multi-billion dollar business. In this context, foreign universities are trying to have a share of the Indian educational market.

Though remarkable progress has been achieved in the field of higher education in post globalization period, Indian higher education system is still plagued with several challenges, e.g., growth in institutions has not matched the growth in demand for higher education. More importantly, growth of good quality institutions has been negligible. As a result, Indian higher education has often been characterized as a sea of mediocrity containing only a few islands of excellence. The major problems of access, equity and quality continue to be areas of concern. These problems stem in part from a lack of public funding for higher education. Public institutions without adequate funds to hire good faculty, offer scholarships to disadvantaged groups and
expand enrolment are finding it harder to meet growing demand. In order to address serious issues we need to globalize our education system i.e., our education system should be made development oriented- development at local, regional, national and global levels. The education system must be able to tackle the problems and issues at all these levels.

Trade in educational services has become a major business in this globalised world and the beneficiaries of this trade are mainly developed world e.g. USA, Canada, UK, Australia, France, Germany and New Zealand etc. They are mainly the exporting countries. India is lagging behind in educational trade and register as a leading importer of educational services. This shows that, due to lack of organised and aggressive marketing strategies, India is not able to attract international students as par with other developed nations. In 2009, 195,107 Indian students going abroad (mainly to developed countries) is termed as import of services in contrast to this, only 21,778 foreign students came to India to pursue higher education (mainly from developing or least developed countries) termed as export of services. This shows wide imbalance among import and export of services in India. Further, there is very uneven distribution of international students across different institutions and regions in India. The largest concentration of foreign students is observed in the institutions located in Western and Southern part of India but very few in Northern and Eastern part, which is not a very encouraging trend.

Public expenditure on education in India has increased after independence, but still this growth has not been sufficient or satisfactory. The share of expenditure on education as per cent of GDP in India is very low as compared to developed and emerging economies. It has been pointed out that, India’s investment in education as proportion of GNP has been below the national target of spending 6 per cent.

Financial resources become an important input for the development of education. In spite of that, financing of higher education has become an important concern for India, due to their new economic reform policies and such concern has become two fold after the arrival of the globalization policy under the initiative of world trade organization. Globalization has created imbalances among different levels of education in terms of allocation of resources. The sector which accorded more attention and priority are elementary education while other sectors viz. secondary, higher and technical education suffered a lot. A large gap is likely to emerge between
the resource requirements of the system and the availability of resources if the present trends in financing of higher education continue into the future. This may likely jeopardise the efforts to make India competitive in the global market. Further, in this globalised era, financing of higher education has not been in conjunction with the increase in enrolment as a result the gap has widened. In a time of growing resource requirement it has become necessary to address the reasons for dwindling situation of financing higher education.

1.7 Scope of the Study

Higher education being at the apex of educational system plays very crucial role in overall development of human being. The importance of higher education further increases in the era of international competition and globalization. The international experience shows that only those countries could reap the benefits of globalization that had build-up high quality human capital stocks. Thus, development of higher education becomes significant and adequate attention must be paid to higher education system in India.

The term ‘higher education’ has a very broad meaning as it embraces all kinds of education at the degree level and above such as – General, Professional, Medical, Legal and Technical education etc. It is not possible for the researcher to cover this vast area fully; therefore, the study is confined to ‘general higher education’. Higher education in India has expanded at a very fast rate during the post-globalized era. There was spectacular increase in the number of institutions, enrolments and teachers. Today, the Indian higher education system is one of the largest in the world and at the same time it is the second largest in terms of enrolments. This has helped the nation to become the third largest pool of scientists and technologists in the world. Though country’s achievements in terms of absolute numbers are impressive, they are quite inadequate in relation to its population. Enrolment in higher education is only 17.9 per cent of the eligible age group against 20 per cent which is the threshold level for a developing country to reach an adequate level of economic development (Tilak, 1997).

It is well known fact that services is an important driver of the growth of the world economy which accounts for 71 per cent of the global gross domestic product. Trade in services is the fastest growing sector of international trade. The importance
of the service sector can be judged from the world trade in commercial services, which accounts for 141.5 US$ billions in 2006. And higher education is one of the most important ingredients of service trade which was estimated to be around US$40 billion in the same year (Bubtana, 2007). This indicates the expansion of higher education sector in terms of economic power. Thus, trade in higher educational services has a great scope that makes it a part of GATS. Amongst all the sectors of education, higher education is the most traded sector. India is engaged in trade in educational services under all four modes of supply, but not necessarily within the GATS framework. Hence, in general, the present study discusses trade in higher education sector with respect to four modes of supply. The study is confined to export via- Mode 2 (Consumption abroad). Given that the bulk of trade in education sector takes place through Mode 2, therefore an attempt is made to analyse the mobility of international students in India during the period of globalization. For this purpose, top ten countries from each, High Income Countries, Lower Middle Income Countries and Low Income Countries have been selected. Further, an attempt has been made to identify the country which has contributed a major share in the mobility of international student in India.

The period (1981-2010) provides a strong scope to examine the impact of globalization on financing of higher education in India. During 1980s, India partially joins globalization by adopting the policy of liberalisation and eliminating the restrictions up to some extent. Due to balance of payments problems which surfaced in the late 1980s, India adopted the policies of stabilization and structural adjustment. In the process of economic liberalisation, the government of India launched series of economic reform measures in 1991. These measures included consistent and synchronized steps to decrease protection and liberalise control over industry and foreign investment and raise competition in huge public sector dominated areas. These measures had serious implications for social sector, as it led to drastic cuts in public subsidies and development expenditure particularly on social services. This cut in expenditure trickled down to public expenditure on education in general and higher education in particular.

The study is comprehensive and descriptive in nature. It has analysed the growth of higher education in India in the post globalised era. Further, the effect of

5 UNTACD-Database on ‘International Trade-Services’.
globalisation on educational trade and its impact on financing of higher education has been analysed in great detail which may have some policy implications. It can be useful in further empirically examining the effect of globalisation on Indian higher education system. Thus, the study provides a basis for further research in this area.

1.8 Objectives of the Study

The objective of the research is to examine the following aspects of globalization and higher education in India.

- To analyze the progress of higher education in India in terms of variables like student enrolment, institutions (universities and colleges) and teachers during pre and post-globalization periods.
- To examine the role of General Agreement on Trade in Services (GATS) in higher education services.
- To examine trade in higher education services, especially export via mode 2 in India in the era of globalization.
- To analyse the trends in public expenditure on education particularly higher education in India during pre and post-globalization period.
- To examine the impact of globalization on public expenditure on higher education in India.
- Finally, to come out with the findings, conclusions and suggestions.

1.9 Hypothesis of the Study

The hypothesis of the study are:

- Globalization had no significant impact on total expenditure on higher education in India during post-1992 period (i.e., from 1992 to 2010).
- Globalization has affected the growth of higher education system in India, in terms of colleges, universities, student enrolment and teachers.

1.10 Database

The study is exclusively based on secondary sources of data collected from different official documents and websites of the Government of India. The data for Globalization (i.e., export + import/GDP) and Gross Domestic Product (GDP) has
been taken from Reserve Bank of India (RBI) Handbook of Statistics on the Indian Economy. Data on imports of educational services has been taken from Reserve Bank of India Bulletin (RBI). Data related to trade in services at global and national level has been collected from UNTACD Handbook of Statistics and UNTACD Database on International Trade-Services which is available on the website, http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx. Data for commitments on education services are taken from WTO Secretariat.

Student Mobility data has been collected from various issues of UNESCO Institute for Statistics (UIS) Global Education Digest (GED), Open Door Policy, UNESCO Statistical Year Book and Association of Indian Universities (AIU) International Students in Indian Universities. The data related to Foreign Education Providers is taken from National University of Educational Planning and Administration (NUEPA), Foreign Education Providers in India (2005) and (AIU) Foreign Education Providers in India (2012). The relevant data on internet users are taken from World Development Indicators World Bank (WB) whereas data related to categorization of different economies according to their level of income is taken from World Bank (WB): World Development Report (2010).

The data related to enrolment, institutions and other educational data has been compiled from various issues of University Grants Commission (UGC) Annual Reports (MHRD), Selected Educational Statistics (MHRD), University Development in India, Basic Facts and Figures, MHRD Department of Higher Education, Annual Status of Higher Education of States and UTs in India, 2012 (summary Report), Ernst & Young/FICCI, Economic Survey, Government of India (GOI), Statistics of Higher and Technical Education (GOI), MHRD, All India Survey on Higher Education (AISHE), Pilot Report and Higher Education in India at a Glance (2012), UGC.

Furthermore, data on expenditure on education are taken from Analysis of Budgeted Expenditure on Education, Ministry of Human Resource Development (MHRD), National Informatics Centre, Budgetary Resources for Education, Department of Education, MHRD, GoI (1995), United Nation Development Programme (UNDP) Human Development Report, Annual Financial Statistics of Education Sector and Five Year Plans Document. Articles published in the Journals and Periodicals of national and international repute will be made good use of in order to study the different aspects of the higher education.
1.11 Methodology

Methodology is a systematic way of solving the research problems and these problems are solved by using statistical and econometric tools. The significance of a study to a great extent depends on the methods followed in selection of sample area, collection of data and methods adopted for their analysis.

In our study splicing of two or more series have been done with the purpose of reducing them to the same base in a bid to render them comparable. Further, for the sake of convenience, all the tables in the annual series of wholesale prices have been worked out on financial year basis as some institutions like RBI and Planning Commission of India use financial year data. The other statistical tools which have been used include ratio, calculation of percentage, mean, standard deviation, coefficient of variation, minimum and maximum.

1. **Mean**

\[ \mu = \frac{\sum X_i}{N} \]

Where, \( X \) is the concerned variable

\( N \) is the number of observation

2. **Standard Deviation**

Standard Deviation (SD) = \[ \sqrt{\frac{\text{Sum of the squares of deviation from mean}}{\text{Number of Observation}}} \]

\[ \sigma = \sqrt{\frac{\sum (X-\mu)^2}{N}} \]

Where, \( X \) is the concerned variable

\( \mu \) is mean of the variable

\( N \) is the number of observation

3. **Co-efficient of Variation (CV)**

For knowing the instability of variables we have calculated coefficient of variation by the following formula:
\[ CV = \frac{\sigma}{\mu} \times 100 \]

Where, \( \sigma \) is the standard deviation

\( \mu \) is the mean of the variable

Further, the study uses Compound Annual Growth Rate (CAGR) and Average Annual Growth Rate (AAGR) to analyze the growth in the variables. Besides this, regression method is used to estimate the impact of globalization on total government expenditure on higher education in India. Dummy variable is used to divide the whole period into two sub-periods viz., pre and post-globalization period.

(1) Compound Annual Growth Rate (CAGR)

The Compound annual growth rate is generally calculated by using compound interest rate formula is:

\[ Y_t = Y_0 \times (1 + r)^t \]  

Where \( r \) is the compound (i.e., over time) rate of growth of \( Y \). Taking the natural logarithm of the equation (1) can be written as

\[ \ln Y_t = \ln Y_0 + t \ln (1 + r) \]  

Let consider \( \beta_1 = \ln Y_0 \) and \( \beta_2 = \ln (1 + r) \) then we can write equation (2) as

\[ \ln Y_t = \beta_1 + \beta_2 t \]  

Adding the disturbance term in equation (3) we obtained following equation

\[ \ln Y_t = \beta_1 + \beta_2 t + U_t \]  

Now, we estimate equation (4) and use estimated \( \beta_2 \) for the calculation of CAGR. Thus,

\[ CAGR = \{\text{antilog} \; \hat{\beta}_2 - 1\} \times 100 \]

The second formula which has been used for computing CAGR is calculated by using dummy variable techniques to disentangle the two sub-periods growth. The study is concerned that whether post globalization period has induced significant effect on rates of growth in the educational variables. Though, the conventional approach can be used for calculating growth rate for sub-periods, but this approach is associated with one major drawback:
The number of observations available for estimation of rates of growth should be fairly large. However, sub-periodization may result in a severe loss of degree of freedom available for estimating/testing the rates of growth.

While keeping in mind this limitation associated with conventional approach, dummy variables technique has been used. For this purpose, we have estimated an exponential equation of the type:

\[ Y_t = b_0 b_1^{(1-D)t} b_2^D e^{ut} \]  

Where, D is dummy variable assuming value of 0 and 1 for pre- and post-globalization periods respectively and ‘e’ stands for the base of natural logarithm, ‘ut’ represents disturbance term associated with ‘Y’ variable at time ‘t’. The unknown b₀, b₁ and b₂ are estimated through the OLS techniques as applied to the linearized version of logarithmic function. The growth rate ‘r’ of ‘Yₜ’ is computed as taking antilog of parameters b₁ and b₂.

Thus, CAGR for pre-globalisation period is:

\[ r_1 = \{\text{antilog (}\hat{b}_1\text{)} -1\}*100 \]

and for post-globalisation CAGR is:

\[ r_2 = \{\text{antilog (}\hat{b}_1\text{)} -1\}*100 \]

\[ (2) \quad \textit{Annual Average Growth Rate (AAGR)} \]

First, we calculate Annual Growth Rate by using the following formula

\[ G = (Y_t - Y_{t-1} / Y_{t-1}) \times 100 \]

Where,

\[ G = \text{Annual Growth Rate} \]

\[ Y = \text{Value in period } t \]

\[ Y_{t-1} = \text{Value in period } t-1 \]

Now, AAGR is calculated by adding all the annual growth rates and dividing it by the number of years.

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AAGR = \frac{(\text{Growth Rate in Period A} + \text{Growth Rate in Period B} + \text{Growth Rate in Period C} + \ldots + \text{Growth Rate in Period X})}{\text{Number of Years}}.

The AAGR is, therefore, the Arithmetic Mean of a series of growth rates.

1. **Dummy Variable**: A dummy variable is a binary variable that takes value 1 or 0. Dummy variable is used as a proxy for other variables which cannot be measured in any particular case for various reasons. It is commonly used to examine group and time effect in regression.

   A shift of a function implies that differential intercept and differential slope coefficients changes in different period. Such shift may be taken into account by the introduction of a dummy variable in the function.

**Regression Equation:**

\[ Y_t = \alpha_1 + \alpha_2 D_t + \beta_1 X_t + \beta_2 (D_t X_t) + \mu_t \]  

Where,

- \( Y_t \) is the concerned variable
- \( X_t \) is the concerned explanatory variable
- \( \mu_t \) is the random error term
- \( t \) is the time period
- \( D \) is the dummy variable,
- \( D = 1 \), if an year belongs to post-globalization period
  \( D = 0 \), otherwise (for pre-globalization period)
- \( D_t X_t \) is the interaction term of dummy variable and concerned explanatory variable.
- \( \alpha_1, \alpha_2, \beta_1 \) and \( \beta_2 \) are parameters.
- \( \alpha_2 \) and \( \beta_2 \) are called differential intercept and differential slope coefficient respectively.

1.12 **Limitations of the Study**

- The scope of the study in general, confines to only general higher education level. As such, it does not deal with primary, secondary and higher secondary schooling, diploma courses and technical education.
Globalization is a qualitative term. Thus, to measure the impact of globalization, a proxy variable has been used.

Although enough data on higher education was available with UGC Annual Reports and MHRD Selected Educational Statistics, but there were no consistency and similarity in the data which affected comparability.

The study used the most recent available data related to higher education for the purpose of analysis.

The study does not cover the historical development of higher education in the country, state, and district. An attempt has been made to give a brief overview of educational development after independence to know the trends of growth in higher education in India.

Service in itself is a very broad concept and it is very difficult to gather all the relevant data for all the sub-sector. Thus, this limitation poses certain restrictions on the effectiveness of the study.

There is a need to develop a strong database on trade in educational services, which our policy makers or government mostly lack. However, unlike developed economies, India did not maintain separate account on trade in education services in the balance of payments (BOP) statistics till 1998-99. After this period, the Reserve Bank of India (RBI), started to compile trade in education services statistics but only for payments (imports). There is no database regarding exports of educational services. Thus, due to this data limitation, study failed to categorise mode-wise trade in education services.

International student mobility of upper middle income countries have not been taken, due to inadequacy of the continuous time-series data.

The analysis with respect to international student mobility in India has not been carried out from 1980’s onward’s because non-availability of continuous time-series data. So the study is limited for the period 1991-2009.

Finally, this research relies on secondary sources so it has to be taken with all its limitations.
1.13 Scheme of the Study

The whole study is organized into seven chapters. The first chapter deals with the introductory background as well as theoretical aspects of the study. It prepares a conceptual framework about the study and related aspects and outlines the objectives, statement of the problem, scope of the study, hypothesis to be tested, database used, methodology adopted, chapter scheme and limitations of the study.

Chapter second deals with a brief review of existing literature available on different aspects of higher education in India and globalization therein. The existing literature on the subject is wide and varied. We have selected major studies which throw light directly on issues under consideration in our study i.e. studies covering the impact of globalization on Indian higher education system.

Chapter third examines an overview of growth of higher education in India. For evaluating the trend and growth of higher education in India during pre and post-globalization period, parameters such as universities, colleges, enrolments and teachers are selected. It also examined the stage-wise and faculty-wise enrolments in India during this period. Further, the role of private sector in growth of higher education in India is also discussed.

Chapter four gives a brief overview of multilateral trading system. A short description is given about the General Agreement on Tariffs and Trade (GATT) and its transformation into the World Trade Organization (WTO), depicting some of their main differences. Further, trade in services has been analysed keeping in view of its contribution to the global and national economy. Then, it follows a brief description of the General Agreement on Trade in Services (GATS) and its main rules and principles. Finally, the closing section is devoted to discuss India’s higher education under GATS.

Chapter five examines trade in higher education services in India through four modes of supply, however, the main emphasis is laid on export via- mode 2 (Consumption abroad). This chapter analyses the mobility of international students in India in the period of globalization. For this purpose, top ten countries from each High Income Countries, Lower Middle Income Countries and Low Income Countries have

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7 According to World Bank, countries are classified into different income groups and the latest classification is taken from World Bank: World Development Report 2010. Definition: Low income: GNP per capita $975 or less in 2008, Lower middle income- GNP per capita $976 to $3,855; and High income GNP per capita $11,906 or more.
been selected. An attempt has been made to identify which country could become a major source of international student in India in the era of globalization. Then, factors has been also discussed which influence foreign students to study in India.

Chapter six is divided into two sections. In the first section, public expenditure on education at global and national level has been analyzed. Further, this section examined the pattern and trend of public expenditure, focusing on plan, non-plan and total expenditure on higher education in India at current and constant prices (2004-05). This study also briefly analyses the pattern of intra-sectoral allocation of resources in Five Year Plans by levels of education which reflect the changing priorities in education sector. This section also examined the role of centre and state in financing higher education in India in plan, non-plan and total expenditure both at current and real prices (2004-05). Further, this study also discusses per-student expenditure on higher education in India, both at current and constant prices. Finally in this section, the study discusses the factors for deceleration in public expenditure on higher education in India. In the second section, impact of globalization on public expenditure on higher education in India in post-1992 period has been analyzed. The parameters such as globalization, dummy and interaction variable (i.e. cross product of dummy and globalization) has been taken to see the impact of globalization on total expenditure on higher education in India. The impact has been analysed by Ordinary Least Square (OLS) method. This section ends with empirical results and discussion. Finally, chapter ends with a short summary and a few concluding observations.

Chapter seven concludes findings of the study and suggests for the improvement in higher education system in India.

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8 Whole sale price index (WPI) based on 2004-05 prices are used throughout this chapter to convert all the figures from current prices into constant (real) prices, based on the data drawn from Handbook of Statistics of Indian Economy: Reserve Bank of India (RBI), 2011-12. Thus, these figures in real prices are adjusted for increase in prices.