

Chapter 1

Introduction

1.1 The Problem

Economic and cultural globalisation influences higher education in 21st century like never before. The international higher education is a large business enterprise. In knowledge based economies, the universities are more essential as means for cross-border links and uninterrupted international flows of human capital, information, knowledge, expertise, products and monetary capital. As a result, the strict frameworks, learning prerequisites and educational service exporting and importing countries have come closer in modern times. These developments have stepped up the comprehensive diffusion of novel public management models and instructive English. Students embrace the multi-ethnic expertise and the convention of mobility, while some remain globally mobile later in their occupations (Marginson et al. 2007). In a market driven competitive economy, set free by globalization, education assumes a rather diverse role. It can hardly afford to be conformist, inflexible and resistant to change. It has to keep track of the most recent advancements in a variety of areas and be able of constructing, engrossing and transacting latest expertise and information system that are all-encompassing across different countries of the world. Thus a paradigm shift in the structure of education with considerable importance on the productivity facets of the programme of study is important. Globalised higher education of the 21st century demands ample emphasis on research and development (R&D) (Azad, 2004). The upsurge of neoliberalism and its accompanying market financial measures have gone beyond for-profit business territory and has infiltrated to sectors e.g. higher education (Shi, 2009). The wide-reaching reorganisation of higher education has seen the change in the philosophy of education as a wholesome welfare good to one which is subject to market values (Arokiasamy et al. 2012).

Amaral (2007) mentioned that the market has emerged as a new instrument of public policy. Margaret Thatcher in the UK pioneered the extensive use of market as a tool for promoting competition between public services (which included higher education) to increase their efficiency and also to maximize the provision of social benefits. Thatcher defined the three Es for managing of the public sector, i.e. *Economy* in acquiring resources, *Efficiency* in using resources, and *Effectiveness* in achieving the objectives.

If globalisation is defined as the broadening and quickening of interconnectedness on a global scale then worldwide flows comprise not just fiscal action but more prominently in higher education possibly, human resource, communications, information, ideas, know-how, policies plus practices at organizational level. The most globalised feature of higher

education is knowledge along with research; also the most globalised facets of human resources are globally mobile doctoral students, post-doc researchers as well as other faculty. Correspondingly, international flows of knowledge, workforce and investment in higher education are not consistent or multi-directional; rather frequently they are in one direction or mostly one-way and subjugated by the stronger countries and educational establishments, chiefly in the Anglophone bloc with most of the United States. The dominant educational systems are strictly determined by the amount of national investment systems, where the USA is the biggest investor in tertiary education followed by Japan and foremost European systems. The spatial distribution of the world's best 100 research universities is unbalanced and unquestionably favours the English speaking countries. The American higher education has a noteworthy universal role that extends to the gravitational pull of human resource flows into the United States (Marginson, 2008). The changing manifestation of higher education sector in India is noticeable by the comprehensive reforms in this sector – spearheaded principally by the key funding agency like the University Grants Commission. Even in a liberal economy in India, reforms are still not all pervasive. Foreign universities have limited access in India contrary to the Gulf countries or Singapore for example. Although shifting policies permit job security of teachers engaged in tertiary education, while receiving significantly healthy pay scale, the profession of teachers allows limited academic freedom and greater academic mobility as observed in the developed countries in the West. The strategy of increasing salary is aimed at retaining intelligent people in higher education, and thus to check brain drain from higher education sector. As viewed by Naidoo (2010), while multinational tertiary education is not a fresh incidence, the stride of its worldwide development, however, is surprising. Naidoo has found *four justifications* explaining the growth in transcontinental higher education; like the *shared understanding* motivation accentuates educational, cultural, societal, and political grounds for the globalised higher education and hardly considers education as part of a pronounced economic strategy. The *revenue-generation approach* suggests the market and trade aspects of cross-border higher education. It shows income as an important factor for recruiting overseas students. The *capacity development rationale* depicts transnational tertiary education as a way of satisfying the unmet demand for education provided by local constituents apart from *building capacity and also capability* for quality education.

Brain drain as an international issue was surfaced in the post war period. During that time the United States became the undisputed leader of western science and magnet for top-

level European scientists and technicians. The term brain drain was first coined by the Royal Society of London in 1963 (Hansen, 2004: 2). In 1972 the United Nations Conference on Trade and Development (UNCTAD) pioneered the idea of the —reverse transfer technology (Resolution 39-III/1972). As a corollary, the developing countries made two vital claims. The *first* was countries devoid of qualified workers should discourage the outflow and encourage in-migration of skilled workers. The *second* claim was for fiscal compensation from the first world for reimbursing for the loss of human capital. One of the suggestions was about levying tax on skilled workers leaving their mother lands. The rich nations opposed this claim emphasizing the relevance of Article 13 regarding the Declaration of Human Rights. The UNCTAD resolution was never implemented (Hansen, 2004: 2-3). The outlook about brain drain started changing in 1978, following a publication of the United Nations Institute for training and Research. It proved the existence of return migration to home countries later. Yet, the number of highly skilled workers continued to swell (Hansen, 2004: 3).

The concept of —brain drain has been in vogue for over 30 years. A developing country like India has progressively exported some of its brilliant young people abroad. However, debates regarding skilled migration have progressively shifted its focus from brain drain to newer concepts like brain circulation, brain exchange, brain gain and so on. Human movement as travellers, immigrants or emigrants increases receptiveness and broadening of knowledge as fundamental rudiments of globalisation. These movements bond varied populations with widespread fiscal and societal objectives. Migration patterns are fashioned by market forces along with official guidelines. Openings in rich nations are strong entices, and want for staff has forced many countries to slacken entry impediments. Booming migration necessitates resources, expertise, and adjustment to a fresh culture. Migration assists in cross-border remittance, which is a key supply of overseas earnings for many sprouting economies. Remittance flows to developing nations almost quadrupled between 1995 and 2006, rivalling other categories of private financing (World Bank, 2008).

Raychaudhuri et al. (2008) are of the opinion that throughout the last decade, the services sector has witnessed unassuming wave of liberalisation owing to reduction of trade and investment barriers. Most of the World Trade Organisation (WTO) members have committed themselves to the regulations and values of the General Agreement on Trade in Services (GATS) in which Article V of GATS allows the opening up of trade in services between or among parties to a monetary integration contract. Yet, in trade in the services sector, the liberalisation of educational services has experienced insignificant development.

Education services seem to be the least committed sector in the WTO (Raychaudhuri, et al. 2008). Neither knowledge nor globalisation is a disconnected procedure; rather they are allied and enduring processes. Globalisation of knowledge has received keen interest with the revolution of information technology along with socio-economic revolutions all over the world since the late 20th century (Rahman, 2008). The accelerated pace of globalisation has opened newer vistas of higher education; as the job openings are becoming more and more specialised and the modern knowledge based economy has become. Regarding skilled migration it is assumed that student mobility forms an integral part of skilled migration. OECD (2002) has observed that student mobility is potential flow of skilled workers, either during their studies or through subsequent recruitment. Students' flows represent a form of migration of skilled labour and also a precursor of subsequent migrations, mainly of human resources in science and technology (HRST).

The traditional ideas about brain drain refer to emigration of skilled and talented human resource to foreign countries, as a result of several negative factors where they are living or other reasons. Proponents of brain drain theory suggest that investment in higher education is wasted as qualified individuals leave and do not return causing reduction of social capital. As a corollary, the study seeks to focus on brain circulation as an outcome of globalisation. The term brain circulation has gained popularity in recent times. The present research highlights the United States as a pull factor for talented researchers. The crucial elements of American global interface are not synchronized on a national basis, and impede the prospective of multilateral forums concerning global mobility, recognition process and other common goods. But in other national arrangements the result of Americanisation area policy issue for governments to think. For them, the main predicament is that Americanisation is sustained by exceedingly unstable global flows of the populace and cultural transfer. The United States is an awe-inspiring brain-gainer vis-à-vis the rest of the world, while most other nation states witness a net loss of research staff to the United States (Marginson et al. 2007).

Two different opinions are in vogue about the development impact of high-skilled migration. The first is brain drain, whereby the exodus of scientists, teachers, engineers, doctors and other highly expert employees reduces the human capital and monetary revenues of sending nations (Bhagwati and Hamada, 1974). Policies like restricting the flow of highly skilled people are often observed. Contrasting with this is the view of a highly educated Diaspora as a potent force for developing the local economy through remittances, trade,

foreign direct investment (FDI), and knowledge transfers, with the experience of India and China in setting up technology firms as a result of Diaspora working in Silicon Valley for example (Saxenian, 2002). Economists have also emphasized that the possibility of migrating may spur human capital accumulation, potentially leading to a net increase in the education levels of those in the home country (Mountford, 1997).

Student mobility has been categorized here as a form of migration because of the length of stay in the United States. Pastore (2008) has distinctly categorised the length of stay and types of mobility as follows: under three months short-term mobility, under 6-9 months seasonal migration (circular migration), under five years temporary migration (circular migration), over five years long-term migration. STEM or science, technology, engineering and mathematics are special focus of the thesis along with medicine. These subjects are crucial for the development of a country.

The problem may be summarized by the example of a case (Rao, 2015) where a high-end technology is exported to India, and the developed country gets the benefits because of the jobs are supported and the valuable income taxes that are paid by its workers. The business gets established there also. The Indian company importing the technology purportedly gains due to improved efficiencies in its manufacturing process, and in this process, potentially establishing its own produce more competitive worldwide. But regarding human capital, the asymmetry in the exchange is obvious, and this factor often escapes notice.

International students had played a vital role in United States' foreign policy during the era of Cold War. Providing higher education to students belonging to non-aligned countries has helped the U.S. to maintain American supremacy as a knowledge-producer, created a generation of learned elites with favourable links to the United States, and provided a skilled work force that resulted in growth in strategically important areas (Altbach, 2004:9; Brown and Lauder, 2006).

1.2 Background of the study

The issues related to globalisation of higher education have raised interest among academicians worldwide since last two decades in particular. With increasing tendencies of commoditisation of higher education, free market economy and ICT revolution; students also opt for courses offered in the developed countries where the curricula are always happening. The United States being a centre of innovation has proved to be the best country providing

higher education in science and technology. With increasing emphasis on attracting the best intellects, liberal funding in research and development (R&D) and personal scope for career advancements, the U.S. universities are very popular study destinations in the world. Quality of education influences the decision making of international students as they choose different countries as potential destinations (International Graduate Insight Group 2013). Higher education in English language has the advantage of long tradition and the provision of various courses in a global lingua franca (HEFCE, 2014). The study is done at this background.

1.3 Emergence of the problem

It is important to find out the motivation and preferences of students when it comes to studying abroad. As Campnell (2010) has viewed that the dynamics and forces of globalisation have led to radical rethinking about the role of the university in modern society. Some believe in the radical privatisation of universities and for others, it means resistance to privatisation and re-establishment of the universities in connection to concepts like public service, public good as well as service. Universities in this globalized world are increasingly connected to each other. Contemporary neo-liberal globalisation has caused the increasing demand to make profit and expand neo-liberal hegemony in higher education in the guise of reframing tertiary education as a service industry. There are several aspects of brain movement. The under utilisation of brain power of the immigrant scholars was highlighted by Batalova et al. (2008). Brain waste not only impacts the development of economy and global competitiveness of host countries, but it also intensifies the impact of brain drain in sending countries.

The science and technology has ruled the society and economy in modern world. This factor has fuelled the growth of economy and students' preferences for technical subjects, popularly known as STEM subjects. The Indian students have demonstrated their increasing preference for STEM subjects in the universities of USA. Globalisation has resulted in specialisation and super specialisation in job market. The research emerges from this background.

1.4 Significance of the study

With above 700,000 Chinese and Indian students studying in global higher education institutions, every third mobile student belongs to these two countries. The Indian student mobility is due to a subtle combination of demand and supply factors. And on the supply side, the increasing ability to afford foreign education and rapid expansion of the education

providers are important. On the demand side, aggressive marketing by universities and a wider range of recruitment options encourage the mobility of Indian students (Choudaha, 2012). The brain drain, nowadays euphemistically termed as the brain exchange, is still alive and well. Globalisation, as argued, brings in its train a globally mobile and highly educated workforce, thus creating brain exchange among countries. But (Altbach, 2012) thinks that mobility is one-way, primarily from developing and emerging countries to rich nations. Even if there is a growing flow of ideas plus capital back to their countries of origin; one cannot deny the fact that the noteworthy economic and social contribution is actually made in the country to which an individual primarily belongs to.

1.5 The Overview

Chapter two is about related literature. Chapter three thus specifically describes the objective of the study and hypotheses adopted for testing. Chapter four clearly mentions the design of the study, variables considered, the universe of sampling techniques, tools adopted and procedure of data collection. Chapter five is related to data presentation and analysis of data for to attain the research goal. This chapter deals particularly with higher education, brain drain, student mobility and remittance issues. The research findings are exhibited in chapter six. The mobility intentions of the Indian students in India are analyzed. The teaching faculties in different institutions are also accessed for their feedback regarding the impact of globalisation on higher education. The analyses of research findings are related to mobility intentions of Indian students enrolled in STEM subjects in the institutions of USA. Chapter seven concludes.