Investment in Higher Education Sector of India: 

A Review of Related Literature and Preliminary Investigation

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ABSTRACT

Like many other nations in Asia, India has undergone continuous and progressive reforms in its economic, political and social institutions over the past few decades. These changes are also reflected in the education system, which has been, both the target of government reforms and an agent for social change. Higher education plays a vital role in the economic and social development of any country. It provides trained manpower needed in various sectors of the country. Apart from developing human resources, higher education creates thinkers who can respond to critical problems that affect humanity and thereby ensure its survival and growth. In this context, it can be said that higher education sector of the country plays a crucial role in human resource planning and development. The literature review was prepared to support the contribution of higher education institutions in economic and social development of a nation. Drawing inferences from both national and international publications, the paper depicts an overall view on the development of Indian higher education institutions in the global context. The review was also undertaken on researches that concentrated on identifying various conditions which favour or hamper stronger engagement of this sector in a global environment. The study employed extensive literature review with qualitative interviews of academic heads in various universities.

Keywords: Human Capital Investment, Indian Higher Education Sector, Economic and Social Development, Total Quality Management in Higher Education Sector.

INTRODUCTION:

Human capital is the source of sustained competitive advantage of any country (Wright and McMahan, 2011). Human capital theory had its origin in 1960 by Schultz, defining human capital as skills and knowledge acquired by individuals (Schultz, 1960). After the seminal contributions of Romer (1986) and Lucas (1988), the importance of human capital as a source of economic growth has been highly recognized across the globe. Today, very often human capital accumulation occupies a more prominent position than physical capital. Education remains the prime mover in the process of human capital formation. In developing countries, government spending on education can be taken to proxy human capital (Sujchaphong, 2013). The effective supply of human capital accumulation to the economy’s productive process is the function of education at the secondary and tertiary levels. Government’s allocation of funding to education is the crucial determinant of the extent and quality of human capital formation.

Investment in higher education can essentially bring private benefits and public or external benefits. Cumulative investment in higher education sector significantly affects the subsequent growth of workforce productivity (Nasrin, 2002; Becker, 1993). Expenditures made to enhance the productive capabilities of labour, results in
positive rate of return to the labour himself. Resulting increase in the earnings is the return on investment in human capital. The developments of human capital theory identify the educational level of the population as one of the key determinants in economic growth of a country (Varul, 2008). For India also the key for development lies in the human capital and human resource development (HRD). The country will fulfill its immense growth potential only when its population is adequately educated, in generic terms and in skill training (Goyal, 2009). In India, the government has been actively involved in promoting education and health. However, the quality and quantity of the outputs from education are holding back the process of economic development in the country. In Indian higher education system there are certain problems at both the process level as well as system level. These problems can act as limiting factors in our growth towards excellence. In order to bring a strategic and sustainable development, we need to imbibe the modern concepts of management across the all stages of higher education value chain. (Herd, 2011). Currently, the Gross Enrolment Ratio (GER) in Higher education in India is 24.3 percent which is much below than that of the status of developed nations.

The review of literature in this research was done to emphasize on the contributions of higher education institutions in economic and social development of a nation. Drawing inferences from both national and international publications, the report takes an overall view on the development of Indian higher education institutions in the global context. It focuses on discourses of higher education and research, the higher education policies, the various functions and the roles that the higher education institutions play. The literature review was also undertaken on researches that concentrated on identifying various conditions which favoured or hampered stronger engagement of this sector in a global environment. The study employed extensive literature review with qualitative interviews of academic heads of various universities. The results of this study are expected to assist and guide the future researches in the related area. The discussions in this paper can also act as a preliminary investigation on the performance of Indian higher education sector for academicians and administrators.

INVESTMENT IN INDIAN HIGHER EDUCATION SECTOR-AN OVERVIEW:

People become valuable asset for the country and can help the country to maintain its competitive advantage. Education, training, and health are regarded as the most important investments in human capital. The importance of human capital as a source for economic growth has long been recognized in various studies. The shift of Indian economy from a manufacturing centered one to a service driven economy has brought in many changes along with it. Today, it has become very important for India to make fruitful investments in human capital. It is even more important in 21st century as it becomes the youngest country around the globe. During the recent years it can be noticed that Indian higher education sector is undergoing multidimensional changes. Globalisation and technological advancements around the world has made this situation more complex. India needs to be more competitive to address the challenges arising out of intense competition (Tripathi and Murad, 2011). The transformation of higher education in India is being driven by three main factors: economic growth, demographic factors and politics. Global factors are also influencing the change, including internationalization of education and global competition of talent and research funding.

Education is not only vital for India’s competitiveness and sustained economic growth but also for social stability (Herd, 2011). Over the last few decades, higher education in the country has been on a steep growth trajectory. India now has the highest higher education system in the world in terms of number of institutions and the second largest in terms of the number of students. The most interesting fact about India’s higher education service is that it has direct impact on all sectors of the economy. Even a minor change can trigger major response in the external environment of the country (Gupta, 2009).

The recent OECD report on Indian higher education sector states that, in reality, the country now faces dual challenges-one, is to increase the participation level and the other, which is equally important, is to improve the quality of educational outcomes. The report further suggests that by increasing the number of institutions subjected to quality assessments India can improve the standards across the sector (OECD, 2011). As the National Knowledge Mission Commission in India have declared to raise number of universities in the country, there will be serious problems to ensure quality education to the existing and new institutions (Garg, 2010). Over the past decades, India have devalued education in humanities, science and in engineering. Sethi et. al. argues that these issues are important for the country, as it is now engaged in the use of higher education as a powerful tool to build a knowledge based society of 21st century (Sethi et. al. 2012). Taking all these factors in to consideration the twelfth five year plan of the country (2012-17) have identified the following factors as important objectives for the planned period:

A strengthened accreditation system
• Significant investment in information and communication technology (ICT) in terms of infrastructure and curriculum development
• Increased investment in research and development
• Strengthening the capacity of existing institutions
• Improving the student-teacher ratio by increasing the faculty intakes
• Special schemes to address the problems faced by underprivileged and underrepresented students
• Support for internationalization including international academic and research collaborations.

TOTAL QUALITY MANAGEMENT (TQM) IN HIGHER EDUCATION SYSTEM:

Total Quality Management can be viewed as a philosophy; as a process for managing change; as a strategy to improve organisational competitiveness and effectiveness; as a value system that emphasizes quality in product and services; and as an approach to managing the whole organisation (Soni, Chaubey & Ryan, 2000). It can also be viewed as a management unification process emphasizing teamwork and employee empowerment (Stulz, 1989). Arumugam et al., in their study on Self-assessment of TQM, states that the effective implementation of quality measures in institutions results in sustainable competitive advantage for them and it is this fact which has led to tremendous interest among service providers about TQM practices (Arumugam et al., 2009).

Defining and measuring quality is a major concern for higher education in many countries. Quality implies that customer requirements are exactly met. It is related with meeting customers’ perceptions (Taylor & Hill, 1991). Quality in education has been defined variably, through different models and orientations that have been proposed by various researchers (Green, 2009; Harvey, 1993). Powell, T.C. (1995) defines quality management in education as “a cooperative system in which customers, (who are the students) and suppliers, (who are mainly the faculty) involved, mutually agrees to meet the needs, requirements and expectations of customers on a continuous basis.”

Similar to various business organisations, institutions of higher education must be accountable for quality education to their students (Chen and Chen, 2014). Today, administrators and policy makers across the globe are attempting to impose quality standards among educational institutions through the development of strict accountability systems, competency-based education and testing, and mandated national curricular content and goals. They are now faced with mounting pressure to provide results in a climate of efficiency, accountability and competition. A number of researchers in the field of education including Byrnes (1992), Bonstingl (1992), Murgatroyd and Morgan (1993), and Fields (1994) have reported that TQM is attracting increasing attention among educationalists. Yorke (1992) presented the view that Quality in Higher Education is multidimensional. When the quality concepts are applied to higher education, it is complex as there are many categories of stakeholders in the system such as students, teaching staff, government, employees and society at large which need to be multiplied by the number of purposes or dimensions of these stakeholders. Institutions of higher education are also challenged with continual changes and the risk of uncertainty, making the situation more competitive.

Managing quality in higher education is a challenging task. The literature suggests that there are two main reasons for this. First, as mentioned earlier the term ‘quality’ has different meanings for different stakeholders. Second, within higher education there are both internal and external stakeholders who are likely to have disparity among themselves on definitions of quality. External stakeholders are concerned with quality assurance procedures. Quality for external stakeholders predominantly focuses on the measurement of procedures and the extent to which these procedures result in appropriate levels of quality (Jackson, 1995). Borahan and Ziarati, (2002) defines quality assurance as planned and systematic actions necessary to provide adequate confidence that a product or service will satisfy given requirements for quality. Elton (1992) in his work on quality for educational institutions has suggested three main criteria for recording quality namely - accountability, audit and assessment. The work also suggests that these factors are concerned with the control of quality and the people who control quality.

Since higher education institutions are concerned with issues of enrollment, cost, quality of classroom teaching, pass percentage and job placement, according to Zumeta, Breneman, Callan, and Finney (2015), the best approach to answering the quality question is to measure the quality of the output directly. This will answer what students learned, applying their valuable lessons to future endeavors, their performance in the labor market, and most importantly, how employers rate their abilities. Alan, (1998) argues that mere emphasis on quality assurance is not enough, quality enhancement also requires special attention as it aims for an overall increase in
the actual quality of teaching and learning through more innovative practices. Elton (1992) suggests that quality enhancement should focus on quality empowerment, enthusiasm, expertise and excellence. As students are viewed as an integral part of the learning process, the imparting of quality should be student centric. Design of quality is moving beyond functionality and usability, to satisfying people’s quality needs and values, (Childs et al., 2006 and Ayas et al., 2008). Quality in education is regarded as an umbrella concept which includes, the quality of inputs in the form of students, faculty, support staff, infrastructure and capital; the quality of processes in the form of teaching, learning and administrative activity; and, the quality of outputs in the form of enlightened students that move out of the system (Saheey et al., 2004). The model which would be accepted, is one which is sensitive to the expectations of different groups of people involved (Slaughter, 2004). Ideally, any model can succeed, only if it represents the shared vision of the stakeholders.

The choice of a method for implementation of quality management programs is dependent on contextual factors such as size of institution, complexity of programs, institutional culture, and style of management. Successful implementation of quality management in higher education sector requires continuous examination of student learning experience; improvement in quality of student experience; and student satisfaction with higher education experience. Asif et al. (2013) have recognized six critical factors for successful implementation of TQM in higher education institutions, which are as follows:

- Leadership
- Vision of higher education institution
- Program design
- Process control and improvement
- Measurement and evaluation
- Stakeholder focused approach

Globalization and current competitive market environment in the education sector have propelled higher education institutions to constantly review on the need of economic accountability and performance improvement. More universities are adopting the ‘customer’ metaphor and treat their students as customers. They are practicing customer relationship management practices like student complaints and appeal processes, assessment of academics by students, and procedural flexibility for different groups of students (Sappey and Bamber, 2007). These practices will affect teaching and learning environment resulting in enhancement in the student’s competency and university’s reputation (Sappey and Bamber, 2007; Sax, 2004; McIlrath and Huiit, 1995). While the trend of more and more universities accepting their students as customers are becoming popular, the argument whether universities should treat their students as customers is still unclear and debatable. Students are not completely considered as customers; however they have some roles as service receivers who use services from universities. It is necessary for service providers’ i.e universities, to ensure that service receivers have positive service experience. Research in the service provision indicates that service receivers’ negative attitudes toward service providers not only influence a negative intention to use the service, but also affect their word-of-mouth advertising and complaining behaviors (White and Yu, 2005; Bougie et al., 2003; Liljander and Strandvik, 1997). This will result in causing extensive damage to the reputation of service providers, in this case the respective universities.

In the coming years, everywhere in the world students will be looking for quality education. They may not agree to have a passing grade, a favorable course evaluation, in exchange, without essential knowledge to work in the real world (Watjarakul, 2014). Thus, by implementing Total Quality Management in higher education, it is expected that the students will be competitive enough to meet the market challenges in the real job environment (Soni et al. 2000).

**LEARNING FOR JOBS:**

The next 25 years changes in the economic, social, political, demographic, and technological environments will transpose higher education in dramatic ways (Alexander, 2001). Existing model of the university, a bricks and mortar campus serving youth, that emerged more than a thousand years ago has changed little in a millennium. However, higher education for business in 2025 will utilize a different model (Inayatullah and Gidl). Preparedness of graduates for the world of employment as a quality indicator, has attracted attention due to the rising trend of unemployment and also due to the rising trend of those employed in so called ‘non-graduate’ jobs (Brown, 2005). The future of all universities both traditional and nontraditional will be highly influenced in the years ahead by the quality of their product. They would be evaluated on the basis of how their students with university degrees are perceived by businesses in a growth economy (Tuchtenhagen, 2002).
Employability for students is a mix of essentials that can differ from job to job. Among them adaptability and versatility are key. In the current economic scenario, it is unlikely that 21st century workers will hold one position, or even one occupation, for whole of their working lives. They will work for longer than previous generations and in changing circumstances. This initiates the need for re-invention of needed employability skills among tomorrow’s workforce to cope up with this changed scenario (Helyer, 2007). Creativity, imagination and entrepreneurship are the generic skills to be gleaned from undertaking higher education. Learning how to learn, learning how to think; intellectual curiosity; the challenge and excitement of new ideas are all part and parcel of higher education experience. Higher education institutions should aim at creating a dynamic synergy and dialectic between academic learning and work-based practice (Gray, 2001).

Helyer and Lee, (2012), from different work sectors ranging from petrochemicals to digital media, identified generic training in the following aspects as most appropriate to current and future skills development. Key areas identified were:

- Leadership and management skills
- Sales and negotiation skills
- Problem solving skills
- Communication skills
- Financial decision making skills
- Marketing skills
- IT and software training;
- Knowledge on legal issues like intellectual property, copyright
- Innovative and creative thinking skills

In the Indian higher education sector also quality and relevance have come to be the centre of focus. The International Labour Organization (ILO) has predicted that by 2020, India will have 116 million workers in the age bracket of 20 to 24 years. Currently, almost 60 percent of the population of the country is in the age group of 15 to 59 years. The co-relation between higher education and employment is complex in the Indian context due to the increased number of socio-economic and technological variables (Powar, 2012). First, India is not creating enough jobs (Rajan, 2006). The reasons are many. The higher education system is encountered with many challenges such as financing and management, access, equity, relevance and reorientation of policies and programmes. The efforts are being made for laying emphasis on values, ethics and quality of higher education together with the assessment of institutions and their accreditation (RUSA, 2013).

Qualitative improvement in the system is imperative. The underlying implication is very obvious, unless India takes a concerted effort to improve the quality and reach of higher education, the demographic dividend of 21st Century will remain a dream. India needs to re-examine its concerns about making its institutions qualitative and competitive by world standards as, in the near future making the higher education institutions (HEI’s) compete in a free market for funding and students will become a worldwide phenomenon, (Levy, 2006; Bok, 2003; Sporn, 1999; Slaughter and Rhoades, 2004; Dill, 2003) and this process is essentially irreversible (Brown 2005).

CONCLUSION AND FUTURE DIRECTIONS:

By 2020, India will have the largest tertiary-age population in the world (British Council Report, 2014). Sustained economic growth, rising public and private spending; timely regulatory reforms have ensured a market expansion of Indian higher education system. The system was successful in achieving considerable progress in increasing enrollments and reducing economic and gender disparities.

Challenges for India’s tertiary education, which demand attention includes, pressure on resources because of tightening budgets, deterioration in staff-student ratios and the need for innovative curriculum designs and educational strategies to meet the demand of the 21st century. Efforts need to focus on improving outcomes. Effectiveness of the instructors needs to be enhanced by strengthening the accountability and incentives. Instructional quality can be improved by increasing teacher resources and also by offering better training and development. Low-skilled teachers need specific guidance to reach minimally acceptable levels of instruction (Murane, Ganinian and Alejandro, 2014).

Open and Distance Learning of the country is becoming more and more significant for continuing education, skill updation of in service personnel and for quality education of relevance to learners located at educationally disadvantageous locations. The following table depicts the trend in the higher education sector over the past five years.
Table 1: Trend in Higher Education Sector for the last five years

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<tbody>
<tr>
<td>Number of Universities</td>
<td>642</td>
<td>667</td>
<td>723</td>
<td>760</td>
<td>799</td>
</tr>
<tr>
<td>Number of Colleges</td>
<td>34,852</td>
<td>35,525</td>
<td>36,634</td>
<td>38,498</td>
<td>39,071</td>
</tr>
<tr>
<td>Number of Stand Alone Institutions</td>
<td>11,157</td>
<td>11,565</td>
<td>11,664</td>
<td>12,276</td>
<td>11,923</td>
</tr>
<tr>
<td>Enrolment in Higher Education</td>
<td>291,84,331</td>
<td>301,52,417</td>
<td>323,36,233</td>
<td>342,11,637</td>
<td>345,84,781</td>
</tr>
<tr>
<td>Gross Enrolment Ratio</td>
<td>20.8</td>
<td>21.5</td>
<td>23.0</td>
<td>24.3</td>
<td>24.5</td>
</tr>
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**Source:** AISHE, 2017

The above statistics shows that there is good growth in enrolment between 2011-12 and 2015-16 which indicates that higher education system is on right track. Gross enrolment was 20.8 in 2011-12 and this became 24.5 as per the reports in 2015-16. Another trend exhibited by the sector is increase in the number of students preferring distance mode of education (Table 2). Distance education is embraced by many good universities in India to meet the ever increasing expectations of students who have deficient means to pursue their higher education through regular manner. The major limitation in the formal system of education in India is that, lot of students in the country are not able to undertake it due to various reasons like unfavorable geographic locations and inconvenient timing. These students are getting attracted towards distance learning mode of education. Convenient education, study from home, more quality and less expensive, earning while learning are some of the popular advantages of distance education. And this can be quoted as the reason why distance mode of education is growing with a great pace in India which is expected to continue at a greater pace in the coming years.

Table 2: Student Enrollment Percentage in 2015-16

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<th>Level</th>
<th>Regular Mode</th>
<th>Distance Mode</th>
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<tbody>
<tr>
<td>PG</td>
<td>41%</td>
<td>59%</td>
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<tr>
<td>UG</td>
<td>39%</td>
<td>61%</td>
</tr>
<tr>
<td>PG Diploma</td>
<td>57%</td>
<td>43%</td>
</tr>
<tr>
<td>Diploma</td>
<td>66%</td>
<td>34%</td>
</tr>
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</table>

**Source:** AISHE, 2017

In spite of all these achievements in the last few decades, India continues to fare badly on the Human Development Index (HDI), ranking a low 131 out of 188 countries for 2015, report. The country’s Human Development Index (HDI), when adjusted for inequality, suffers a rapid decrease in value further by 28.6 per cent. India’s HDI value is 0.609, and the main reason for India’s poor performance on inequality-adjusted HDI is its steep differences in access to education where the loss registered was 42 per cent. A careful analysis of 30-year data shows clearly that India’s improved performance on HDI is not through improvements in education and health, but mainly through income growth.

Table 2: Trends in Human Development Index 1990-2014 (Gross Result)

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</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>0.849</td>
<td>0.917</td>
<td>0.940</td>
<td>0.941</td>
<td>0.942</td>
<td>0.942</td>
<td>0.944</td>
<td>1</td>
</tr>
<tr>
<td>China</td>
<td>0.501</td>
<td>0.588</td>
<td>0.699</td>
<td>0.707</td>
<td>0.718</td>
<td>0.723</td>
<td>0.727</td>
<td>93</td>
</tr>
<tr>
<td>India</td>
<td>0.428</td>
<td>0.496</td>
<td>0.586</td>
<td>0.597</td>
<td>0.600</td>
<td>0.604</td>
<td>0.609</td>
<td>131</td>
</tr>
</tbody>
</table>

**Source:** Human Development Index Report 2015(Compiled by the researcher)
Older, lifelong learners will comprise a strong market in India for additional education. The large number of healthy older people will either continue working at long-held careers or retire from one career and move to another. These people need to prepare themselves either by updating their skills in the former occupation or by learning new skills in their latter job. They will definitely be needed to update themselves with new technology and advances in their chosen fields. Educational institutions in the country need to monitor technological changes and offer opportunities for lifelong training and skill development. They can use the wide range of opportunities in front of them like Open and Distance Learning mode, professional use of social media platforms and making good of alumni associations. Alumni associations can be a powerful tool for lifelong learning as in this case space is never a constraint. These associations, if managed in a structured and organized manner can prove to be the best platforms for lifelong learning. However, there needs to be a close network between faculty, passed out students and the current learners. According to latest reports on Indian higher education sector, the main causes influencing the quality of higher education commission are the quality of faculty, syllabus standard and technological structure offered, research environment, certification organization and administrative policies and procedures implemented in institutions of higher education. However, the most important factor which requires due importance is to ensure that education continues to progress for the benefit of learners and that the worlds of learning and work are brought closer together. Indian higher education sector need to produce highly skilled manpower at an accelerated pace. To achieve this objective, what India needs is an enabling academic and economic setting in the wake of the knowledge sector boom.

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