



INCREASING THE PRODUCTIVITY OF HIGHER EDUCATION IN INDIA

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Abstract

There is an increasing effort on improving the higher education standards in India. The governments as well as the private sector are increasing their focus towards this sector. The higher education sector in India is currently characterized by the presence of a large number of public as well as private colleges and universities which provide a wide range of professional as well as vocational degrees. The government of India visualizes 'Inclusive Growth' through education and skill development. The current paper is directed towards understanding and addressing the trends in higher education in India, higher education infrastructure, role of technology in improving education delivery system and defining the role of private sector in higher education in India

Keywords: *higher education, infrastructure, technology, industry, private sector, entry strategies*

I: INTRODUCTION

India is one of the few economies of world that withstood the tide of economic slowdown with a silent resilience. A lot of figures are projected about the Indian economy, which is expected to grow at a fast pace. The Indian economy is said to possess huge growth potential. The economic story is driven by factors like demand, investment, saving etc. However at the back of the growth figures lies the strong foundation that is build by the education system of a country. The Indian education system is the second largest in the world, next only to China. The Indian education panorama spans across a wide range of cases from basic schools to modern technology enabled schools, from schools marked by traditional teaching methodologies to world renowned institutes like Indian Institutes of Technology and Indian Institute of Management. The discussion on education reforms is like an ocean where there is lot to be said. Right from primary education to secondary and higher education, skill development, adult education to women education the scope for higher education is immense. The current paper is focused on finding the ways by which the productivity of the higher

education can be increased and enhanced in the current time. As per the National Skill Development “The higher education in India comprises of the following colleges/institutions: Arts, Science and Commerce colleges (general college education), Engineering, Technical and Architectural colleges, Medical colleges, Teacher Training colleges, Polytechnics, Others (Law, Management, etc.), apart from education directly delivered by Universities, Institutions of National Repute (such as National Institutes of Technology), and Research Institutions.”- National skill development council. These institutions empower the students with skills to face the real world situations and the future of the country rests on the effective output delivery by these very institutions

II: REVIEW OF LITERATURE

Higher education system has attracted the attention of many researchers. India has a significant population under the poverty line. School education, both primary and secondary are inadequate considering the entire population. The dichotomy lies in the fact that we also have the largest pool of scientific and knowledge workers. We produce 400,000 engineers a year compared to around 60,000 in USA (*Business Today*,2005). A review of the extant literature has found the system to be excessively egalitarian (Cheney et.al, 2005) due to the objective of the Indian government to create greater social mobility and equality of opportunity, which has resulted in minimizing the distinction and excellence in institutions. The system feels no pressure to enhance the median quality of education (Kapur & Mehta,2004). Cognitive skill formation, rather than simply generating degrees, is what builds an individual ‘s and nations future (Hanushek and Woessmann, 2008). The extent to which education gets translated into improvements in skills and ultimately better social and economic outcomes will depend on the education quality.

The role of private sector is crucial especially felt at the higher education level. At the bottom of “knowledge pyramid” the challenge is one of improving access to the primary education. At the top of the “pyramid” there is need to make the institutions of high education and research world class(Bhatia & Dash, 2010). The private sector segment now accounts for a rising share of enrolments and is more important in India than in most OECD and many emerging countries (Kapur and Crowley, 2008). According to the results of a special survey (*Economist*,2005), higher education is already a global business. The days when higher education was a matter of national policy and government regulation are rapidly fading. Higher Education provisioning is now globalised and in many ways, a commercialized affair and the role of state in the provisioning of higher education is vastly diminished. In higher education,

in India, as in other countries, the expansion of private education has been particularly strong in disciplines where start-up costs are relatively low, returns to graduates are high and the supply response from the public sector sluggish (Levy, 2008).

III: OBJECTIVES

India in the coming times will have the largest set of young people. The young India desperately needs a well developed higher education system, hence there has been a lot of research on the higher education sector and the studies have tried to highlight the trends in higher education and extract the lacunae and thereby suggest strategies to improve the same. The current paper has been written with the objective of studying the role of technology and private sector in higher education. The main objectives are

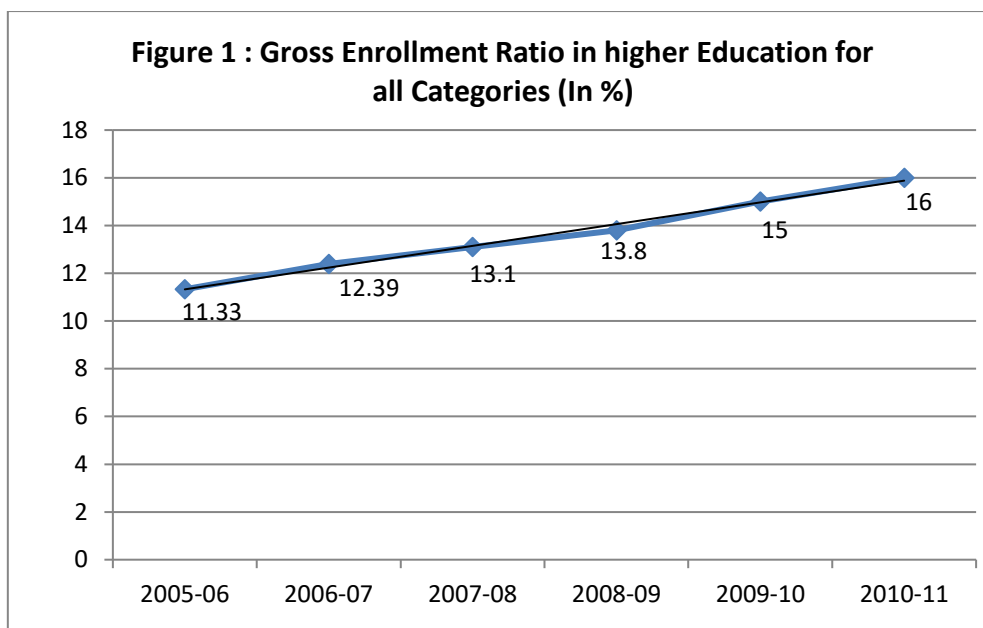
1. To study and analyse the existing higher education system in terms of
 - a. Infrastructure
 - b. Upcoming trends
2. To study the role of information technology in enhancing the productivity of higher education
3. To identify the role of private sector in higher education

IV: METHODOLOGY

The paper is based on secondary data analysis. The data is taken from different research reports prepared by governmental institution as well as various private sector institutions. Along with this various journals and research papers have been studied to get an understanding of the higher education system of India. The paper adopts a suggestive method whereby the role of technology has been outlined and certain strategies have been recommended for the private sector to enter the higher education sector of India.

V.1 : HIGHER EDUCATION INFRASTRUCTURE

In the higher education sector the Gross Enrollment ratio, which measures the accessibility of higher education, has grown steadily over the years and is pegged at 16% in 2009-10. The gross enrollment ratio is the ratio of students enrolled in the higher education programmes to the total population in the age group of 18-23 years. It is expected to grow to 30% by the year 2020, which thus point towards a rising demand for higher education institutions.



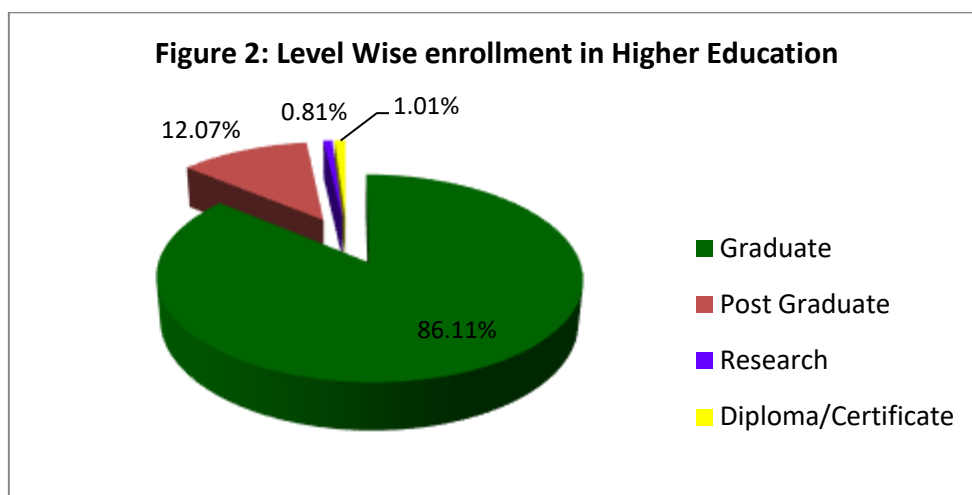
Source: Annual Report 2010-11, MHRD

The number of universities in India is 523 and they have 33023 colleges affiliated to them. Out of the 523 universities, almost 48% of them are state universities. The next major chunk, nearly 26% is of deemed universities. There exists a much higher percentage of private colleges in the higher education sector as compared to public sector colleges. 77% of the colleges in India are private sector colleges and the remaining 22% are public sector colleges. These colleges have around 13.6 million students enrolled beginning session 2009-10. This data points towards the fact that the private sector is poised to play an increasingly important role in higher education.

Table 1 : Faculty wise enrollment in Higher education

Faculty	Enrollment in %
Arts	36.39%
Science	18.42%
Commerce/management	17.11%
Education	3.36%
Engineering/technology	16.86%
Medicine	3.85%
Agriculture	0.55%
Veterinary	0.16%
Law	1.93%
Others	1.37%

Source: UGC Report 2010-11



Source: UGC Report 2010-11

In terms of faculty trends maximum students are enrolled in the arts faculty (Table 1) followed by science and commerce. Collectively, the faculty of arts, science, commerce/management and engineering and technology account for 86% of the total strength of the students enrolled. As of now, the higher education sector has the maximum enrollment at graduate level (Figure 2) With very less enrollment taking place at research level. The growth of any nation is dependent on the amount of research and development taking place in the country. Presently the higher education sector has been focused on increasing the enrollment of students at graduate and post graduate level. However, the significance of research has been equally accepted by academia as well as industry, and herein lies the opportunity for growth for the higher education stakeholders.

V.2: TRENDS IN HIGHER EDUCATION

The importance of education cannot be stated in mere words. Education is the only hope for a nation to grow. The P&G logo of ‘Padega India Tabhi to Badhega India’ sums up the importance of education for a nation in six simple words. Kapil Sibal in the Indo-US Education summit has rightly said that the “wealth of a nation lies in the human mind”. An analysis of the higher education environment in India has brought forth certain visible trends like massification, internationalization, rising competition and innovative technology based approach to higher education.

Competitive environment: The higher education environment is highly competitive where institutions and universities are competing for rankings, status, academic talent.

Massification: There is an increased massification of higher education with the GER rising To 16% As stated earlier this is expected to rise to 30% by 2020, with a targeted 500 million skilled personnel to be created by 2020 .

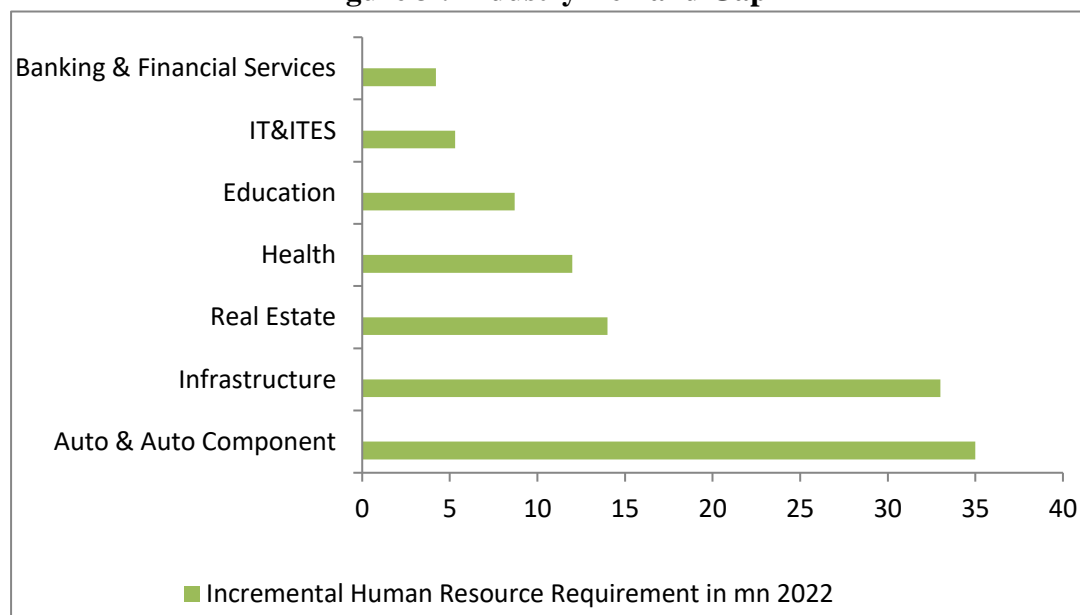
Essential for Inclusive Growth: Education is being considered an essential for inclusive growth . Heavy investment is being made by the government in the education sector since inclusive growth is possible through education and skilling.

Innovation: As demand for education outpaces supply, up scaling access to education and skilling based on innovative solutions is emerging, like for example online Education is taking off, particularly in Higher Education with other segments to follow

Internationalisation: As foreign universities are allowed entry into India, many institutions are trying to tie up with foreign institutions, mainly from the USA. These universities should have an impact of increasing the innovative outputs, building tie ups with the industry and creating Centers of Excellence

Despite such positive trends , it is a fact that the system is unable to meet the industry requirements for skilled human resource. As per a study conducted by the National Skill Development Council, forecast of the skill requirements for 2020 shows a significant demand supply gap in most of the sectors.

Figure 3 : Industry Demand Gap



Source: National Skill Development Council, 2010

The number of students in the higher education are expected to grow to 297,845,000 by 2022, yet despite the rising future trends in enrollment, the gap in the educated and skilled supplied

and those demanded by the industry is expected to persist As can be seen in figure 3, the demand gap is highest in auto & auto component sector and the infrastructure sector

Hence keeping in mind the expected demand gap, and the present trends observed in the higher education sector it can be said that there is an increasing focus of public sector and the private sector towards higher education efforts driven by the force of information technology. In such a scenario, it can be comfortably said that the future of higher education depends on the inclusion of private sector and information technology

VI: ROLE OF TECHNOLOGY IN HIGHER EDUCATION

Technology is what is driving the future. Alvin Toffler in his book Future Shock had said that the pace at which the technology will grow will soon outpace the rate at which the human mind will think. Nothing can be farther from truth today as we see technology permeate all walks of life. In education sector, role of technology is clearly visible in the multiple areas. Information technology is being incorporated in class room teaching. E-Learning is being encouraged. E-governance in educational institutions is replacing the traditional methods of governance. DTH channels are being used to provide for education channels. Digital libraries are on the rise e.g.N-list provides access to 3100 e-journals and 75000 e-books. National Programme on Technology enhanced learning provides online e-learning in humanities, engineering and science streams

However, this is the beginning. Some of the key areas of use and development of information technology in education sector will be in the form of is expected to play in the near future can be in the form of mobile learning, cloud computing etc. Some of the key thrust areas are :

- **Mobile learning** :It is likely that mobile devices with internet access and computing capabilities will soon overtake personal computers as the information appliance of choice in the classroom. The current generation entering the schools is immersed in cyberculture and is untethered, mobile, and wirelessly connected. M- learning encourages to learn from experience. A single individuals experience, thoughts, and perception has the capacity to trigger a larger learning moment, linking students to each other in the spirit of intellectual curiosity, and knitting the campus community even more closely together.
- **Cloud Computing**: Cloud computing is a collection of applications and technologies which can be accessed and manipulated by a large number of users in real time. Applications are increasingly moving off of the stand alone desk top computer and increasingly onto server farms accessible through the Internet. It allows higher

education institutions to use internet resources for data access and data storage. Anand & Kamayani (2015) found that using cloud computing in education provided varied benefits like personalized learning, economic elasticity and scalability, accessibility, and standardization. It will generate knowledge sharing and openness among the educationist as well as students. The students need not be confined to the four walls of classroom to learn.

- **Redefinition of Learning Spaces:** The ordered classroom of 30 desks in rows of 5 may quickly become a relic as schools around the world are re-thinking the most appropriate learning environments to foster collaborative, cross-disciplinary, students centered learning.
- **Smart Portfolio Analysis:** The collection, management, sorting, and retrieving of data related to learning will help teachers to better understand learning gaps and customize content and pedagogical approaches. Also, assessment is increasingly moving toward frequent formative assessments which lend itself to real-time data and less on high-pressure exams as the mark of excellence
- **Shared Infrastructure:** Partnering with other institutions to run back office and administrative processes is on the anvil. University Grants Commission has used the services of private companies to introduce e-governance with the objective of reforming administration and learning. Similarly, All India Council For Technical Education has tied up with Larsen & Toubro to provide e-governance hardware and software support.

Thus the technology is all set to transform and upgrade the higher education scenario in India. The policymakers, the higher education providers and stakeholders are the students are encouraging the adoption of these modern approaches in the learning processes.

VII: ROLE OF PRIVATE SECTOR

A comparison of a government subsidized institution with a private institution reveals that a student going to IIT pays a nominal fee as his education is subsidized by the government. For every student going to IIT the government spends \$18,500 for 5 years. At the same time a private initiative, Manipal Academy charges \$9,000 for 4 years from each student(Nimbalkar et.al;2011). A comparison shows that the cost to the economy is lower in case of the Manipal Academy. As in many other emerging countries fiscal constraints faced by governments in India, especially at the state and local level, have meant that the supply of public education, while expanding rapidly, has not kept up with demand. In higher education, this squeeze has been particularly acute as governments have shifted resources towards the elementary sector

in order to meet priorities to lift participation at lower levels. Indeed, in real terms, per-student funding in higher education was lower in 2007-08 than in the mid-1990s. Some tuition fee differentiation is occurring in public institutions, allowing higher rates of cost recovery in professional and technical courses. However, fees generally remain low and institutions face intense political pressure not to raise costs for students.

For the private sector, the higher education offers numerous opportunities. In order to analyse the role of private sector in higher education, a SWOT profile for this sector has been created (Table 2).

Table 2: SWOT Analysis for Private sector in Higher education	
Strengths <ul style="list-style-type: none">• Wide experience and credentials• They have relationship with key academic institutions across the globe• Ability to provide an international standard education Opportunities <ul style="list-style-type: none">• Education is on top of the Government agenda, with large investments forthcoming• Technology is a key enabler to speed up and upscale modernization of the education sector• Ongoing and forthcoming reforms indicate that investments in education is strongly welcomed	Weaknesses <ul style="list-style-type: none">• The context and challenges facing education institutions are very different from other business. Therefore the private company's experience and credentials may not be directly relevant. Threats <ul style="list-style-type: none">• Changes in regulations at a very rapid pace• Long decision making cycles in government projects• Slowdown in economic growth
Source: Author	

The strength of the private sector lies in the fact that they have a wide range of experience and credentials, and since they are much near to the employment generators they have the ability to provide education that is of international standards and best meets industry requirements. Obviously, this strength wanes a little bit in the light of the fact that the challenges and contexts in the higher education are different from those faced in the other business.

Today education is on top of the government agenda and lots of investments are not only being made by the government sector, but the same are being eagerly welcomed by the private sector. What might be perceived as a threat by a private sector company is the rapidly changing regulations and the long decision cycles of the government. The slow economic growth is another threat, yet the same are not insurmountable. Rather the opportunities and strength

outweigh the threats and weakness enough for the private sector to be positively inclined towards investment In the education sector

A look at the existing initiatives reveals three possible routes for the involvement of private sector into higher education.

1. **Academic Partnerships & CSR:** Utilizing CSR & Academic Partnership to build presence (TCS), Providing services in areas aligned to the national agenda at reduced price (IBM)
1. **Education Provider & CSR Investments:** Becoming an education provider, in combination with academic partnerships and CSR (Wipro, HCL)
2. **Building parallel influence & credentials:** Being part of policy cycles, creating thought leadership and/or buying deals(McKinsey, KPMG, PWC)

VIII: SUGGESTIONS AND CONCLUSION

The key findings of the paper show that the higher education sector is expected to rise and the role of private sector will become more significant. Further the scope of higher education sector is expanding beyond merely churning graduate and undergraduate degree holders to one of delivering more skilled and empowered students. Research based learning is being encouraged in the near future and investment in research is a key thrust area. In the light of these developments it is suggested that technology should be proactively incorporated into the teaching module. The use of technology will have a multipronged benefit. It will increase the student teacher interaction and at the same time make learning more interactive and real. This would greatly improve the output of the education institutions and help deliver students empowered to handle real world tasks effectively. The rising higher education sector responsibilities cannot be shouldered by the government alone and the role of private sector is set to increase. Industry should increasingly not only interact with the academicians but also deliver in terms of increasing partnerships in setting up modern and skill based education institutes. The education will be more relevant to the job scenarios and increase the employability of the Indian youth. This is the way forward for India to attain its dream of inclusive growth.

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