

WHO IS LEADING THE RAISE IN 21ST CENTURY HIGHER EDUCATION: A COMPARATIVE STUDY ON INDIA AND CHINA

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ABSTRACT

India and China are battling to overtake one another in terms of economic growth in the coming decade; to achieve this goal both the nations have to focus on their Higher Education System (HES). HES is essential for national, social and economic development of the country. Increase of economic growth of a nation can be seen by the number of university students it educates with high quality standards within their education system. Higher Education (HE) enrolment is the principal indicator of economic growth as per World Bank statistics. So there is a need of quality based HES which empowers youth for self-sustainability by inculcating employment skills and hence reducing poverty of the nation. This paper will highlight on the efforts taking by both the governments of India and China, in their respective five year plan to achieve greater important in HE and where do they stand respectively in the future ahead and their recommendations to meet these challenges. A highlight on present and future trends in HE of both the countries and their competitive advantages and their short coming are also discussed.

Keywords: Higher Education System, CERI, OECD, UNESCO

INTRODUCTION

China and India, having one third of the world's population, are two of the most rapidly growing economies, awakening to the significance of HE for technological development and for the global knowledge economy. India struggles with moderate reactive growth in HE whereas China manages proactively higher growth, with a better focus on quality; and HE development in these two nations has strong resemblance with respective economic growths over last couple of decades. Both countries realize that higher education is the key to development and recognize the necessity to expand their HES and to build some world-class research universities at the top of a differentiated system. In 2006, India educated approximately 12% of its university-age population, while China enrolled about 22% (UIS, 2009). China is now number one in enrolments, with more than 25 million. India's 13 million enrolment ranks third. Both countries have been expanding rapidly in recent years. Since the early 1990s, China's postsecondary enrolments have grown from 5 million to 25 million in 2006, while India has expanded from 5 million to 13 million by 2006 (Agarwal, 2009; OECD, 2007). Perhaps one-third of the world's 140 million postsecondary students are in Chinese and Indian institutions of HE.

Significant quality problems exist in less-selective colleges and universities in both countries. Many of India's impressive number of engineering graduates, up to 75% according to a McKinsey report, are too poorly educated to function effectively in the economy without additional on-the-job training (Jha, 2009; Surowiecki, 2007). Part of China's growing problem of graduate unemployment is related to the qualifications of some students. HE comprises a policy priority in both countries. China has for almost two decades been engaged

in a significant upgrade in the quality of its top universities as well as in a major expansion of enrolments in all HE sectors. While India has for decades recognized the importance of expanding HE access and improving quality, in 2006 five year plan significant resources been allocated, with the Knowledge Commission's HE recommendations of 2006 and more recent government commitments India got a long way to go.

While estimates vary considerably, many experts agree that the Indian middle class now numbers more than 50 million, and China's is similarly large. Some estimates (for example by McKinsey Global Institute) predict that by 2025, each country will have a middle class of perhaps 500 million. A significant number of these large groups will demand access to HE, creating huge strains on the system. Government policy regarding funding HE and supporting research universities and the elite sector of the system is a key factor shaping HE prospects. As both countries join the ranks of the world's major economies, they will recognize the importance of world-class universities so as to compete globally. China has already moved to create and sustain an elite academic sector. India is beginning to grapple with this issue (CERI).

HIGHER EDUCATION SYSTEM (HES) IN INDIA AND CHINA AN OVERVIEW

It was only during the last two decades that the two nations implemented higher educational reforms as a reaction to the internationalization of their economy and the competitive knowledge based global market. India's educational system has confronted years of ineffective quality control, and it was not until 1994 that the University Grants Commission (UGC) established an autonomous entity called the National Assessment and Accreditation Council (NAAC) as a mechanism to control the quality of HE. India's HES is the third largest in the world, next to United States and China (World Bank, 2012). As of 2011, India has 42 central universities, 275 state universities, 130 deemed universities, 90 private universities, 5 institutions established and functioning under the State Act, and 33 Institutes of National Importance (UGC,2012). Other institutions include 33,000 colleges as Government Degree Colleges and Private Degree Colleges, including 1800 exclusive women's colleges, functioning under these universities and institutions as reported by the UGC in 2012.

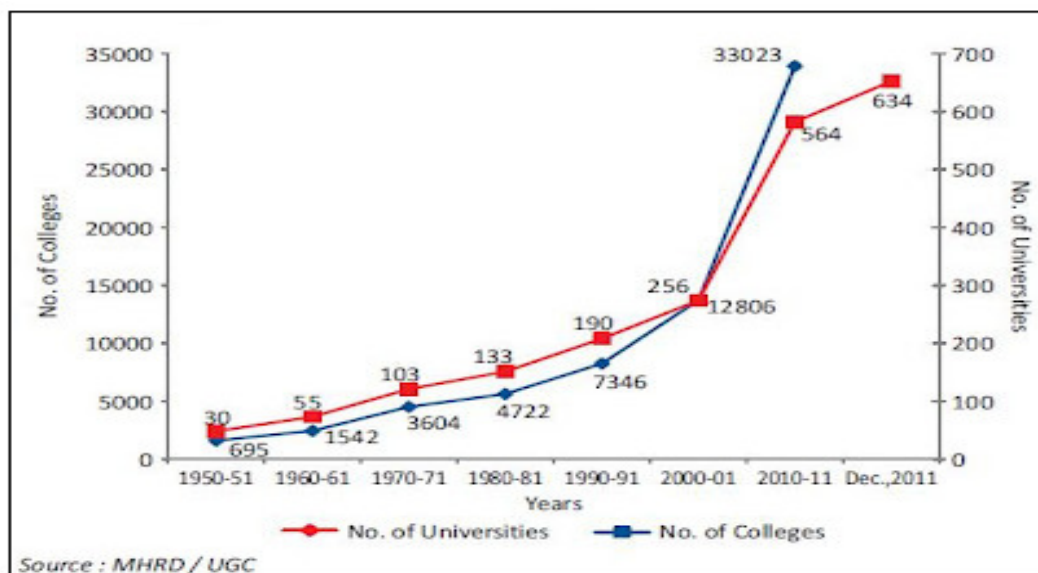


Figure 1: Growth of Higher Education (Source: Ministry of Human Resource Development / UGC)

Some institutions of India, such as the Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), National Institute of Technology (NITs) and Jawaharlal Nehru University have been globally acclaimed for their standard of education.

Higher Education Institutes (HEIs) can be divided into two categories as far China education is concerned. Short-cycle college's award associates degrees, while regular universities offer a range of academic and vocational courses leading to Bachelors and Masters Degrees and doctorates are also offered in universities and research institutions. HE is offered through public and privately funded institutions and Chinese-foreign Co-operatives. In 1977, a "Quota System" was introduced to the HEIs. Every year, the government imposes a quota on the number of candidates admitted to qualified public and private universities. Graduates within the quota system are granted a diploma endorsed by the Ministry of Education (MoE, China). Students and adults not enrolled under the quota system usually apply for self-study courses offered by universities, or gain admission to adult HEIs to receive HE. Within a centralized educational system, the MoE controls all HEIs through policy-making, legislation, planning, funding, and evaluation. In each institution, the President works under the leadership of the Committee of Chinese Communist Party. The Committee of Academy and the Representative Conference of Faculty and Staff deal with faculty and staff issues.

| | 2009 | 2015 | 2020 |
|---|------|------|------|
| Preschool education | | | |
| Kindergarten enrolment (in millions) | 27 | 34 | 40 |
| Gross enrolment rate at three years prior to compulsory education (%) | 51% | 60% | 70% |
| Gross enrolment rate at one year prior to compulsory education (%) | 74% | 85% | 95% |
| Nine-year compulsory education (i.e. primary and junior secondary education) | | | |
| Enrolment (in millions) | 158 | 161 | 165 |
| Graduation rate (%) | 91% | 93% | 95% |
| Senior secondary education | | | |
| Enrolment (in millions) | 46 | 45 | 47 |
| Gross enrolment rate (%) | 79% | 87% | 90% |
| Vocational education | | | |
| Junior secondary vocational enrolment (in millions) | 22 | 23 | 24 |
| Senior secondary vocational enrolment (in millions) | 13 | 14 | 15 |
| Higher education | | | |
| Total number of people studying in higher education (in millions) | 30 | 34 | 36 |
| Enrolment (in millions) | 28 | 31 | 33 |
| Master's degree students within the enrolment (in millions) | 1.4 | 1.7 | 2.0 |
| Gross enrolment rate (%) | 24% | 36% | 40% |
| Continuing education | | | |
| Continuing education received by working people (in million times) | 17 | 29 | 35 |

Figure 2: State guidelines for middle and long-term educational reform and development plan
 (Source: www.gov.cn/jrzq/2010-07/29/content_1667143.htm)

12th FIVE YEAR PLAN INDIA & CHINA

Education is the single most important instrument for social and economic transformation. A well educated population, adequately equipped with knowledge and skill is not only essential to support economic growth, but is also a precondition for growth to be inclusive since it is the educated and skilled person who can stand to benefit most from the employment opportunities which growth will provide. The Twelfth Plan must pick up the challenge of ensuring that all children including differently-abled children are able to enjoy equal access to education and educational institutions. (Government of India Planning Commission, 2011).

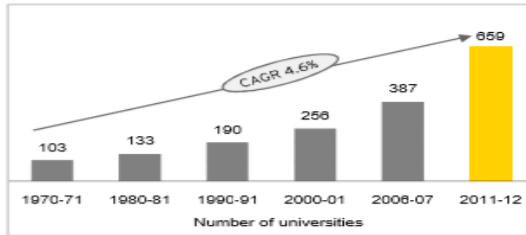
Table 1. Education in India: Twelfth Five Year Plan (2012-2017) and beyond

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| <p>However, in spite of the significant progress made during the past few years, India's HE sector is still plagued with several challenges, e.g., its relatively low Gross Enrolment Ratio (GER), inequitable access to HE by community, gender and geography, and lack of high-quality research and education institutions, resulting in sub-optimal outcomes.</p> <p>The Twelfth Plan recognizes these challenges and proposes several initiatives around six focus areas to address them.</p> <ul style="list-style-type: none"> ▶ Expansion - augmenting capacity in existing institutions ▶ Equity - creating targeted schemes for backward and minority communities ▶ Excellence - building excellence through research and innovation, faculty development, and internationalization ▶ Governance - enhancing institutional autonomy and transparency ▶ Funding - increasing public and private funding and linking them to outcomes ▶ Implementation and monitoring - improving co-ordination across ministries and agencies <p>The Twelfth Plan emphasizes on building "excellence" in India's higher education system. Several institutions are already pursuing this objective, albeit in a less holistic manner. For example:</p> <ul style="list-style-type: none"> ▶ Manipal University is internationalizing its education system by providing global exposure to students and faculty through "twinning" programmes, research collaborations, and teaching forums with international institutes. ▶ The Indian School of Business (ISB) has been able to attract world-class faculty by offering a conducive research environment and attractive remuneration. ▶ The India-UK Advanced Instability Methods (AIM) Network has successfully created a platform for industrial and institutional partners to jointly conduct applied research for industrial purposes. ▶ BITS Pilani provides its students work-integrated learning opportunities through collaborations with leading corporate houses through its "Practice School" programme. <p>Going forward, we expect the quality imperative to be looked at more comprehensively by institutions and in line with their orientation: research-focused, teaching-focused, and vocational-focused. India's higher education system can be expected to be better aligned to industry and global practices, and be more transparent and inclusive by the end of Twelfth Plan period, provided the Government is able to create an enabling regulatory environment and put in place robust implementation, monitoring and quality assurance mechanisms in the sector.</p> <p>The Indian Government has planned expenditure of INR 1,107 billion on higher education during the Twelfth Five Year plan (2012-2017), 1.3 times higher than the planned expenditure in Eleventh plan.</p> |
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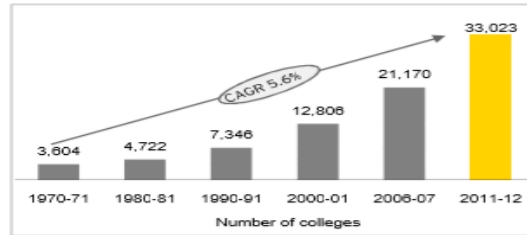
Source: Higher Education in India: Twelfth Five Year Plan (2012-2017) and beyond [FICCI Higher Education Summit 2012]

Table 2. Twelfth Five Year Plan

The number of universities has grown more than six times in the last four decades

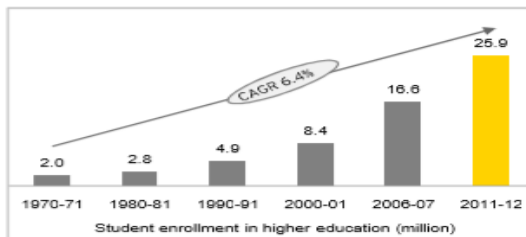


India has more than 33,000 colleges with one-third of the colleges having been set up in the last five years

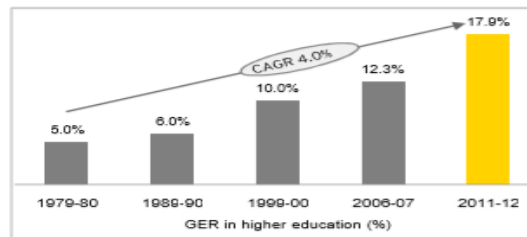


There were 12,748 diploma-granting institutions in the country as of 2011-12.

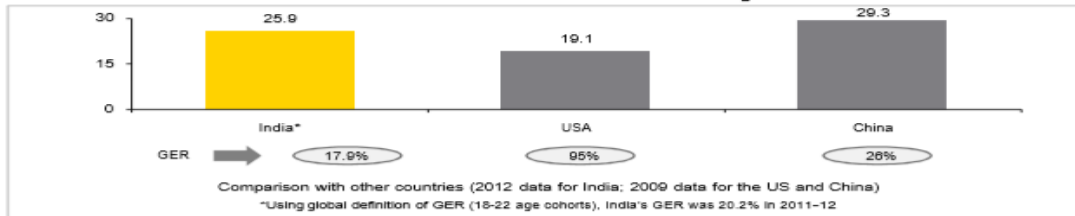
Student enrollment in HEIs has grown 12 times in the last four decades



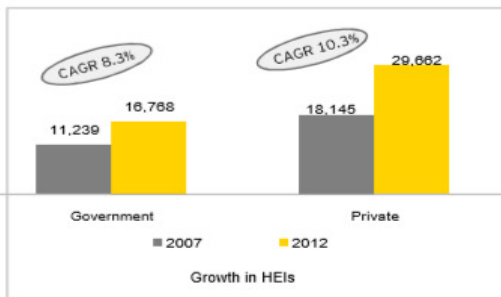
GER in higher education has reached close to 18% in 2011-12



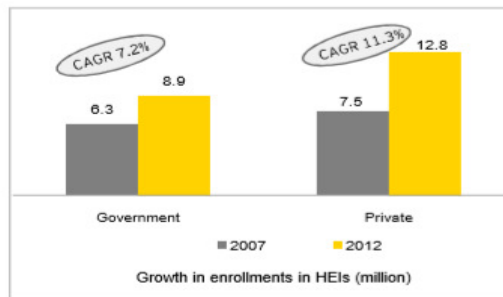
India ranks second in the world in terms of enrollment of students in higher education institutions



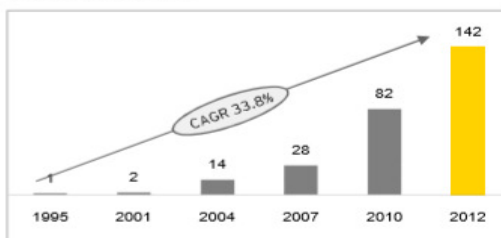
Between 2007 and 2012, the number of private institutions grew faster than the number of government institutions



Enrollment in private institutions has increased at a CAGR of 11% over the last five years, as compared to 7% in government institutions



State private universities have witnessed an annual growth of 33.8% since 1995...



... partly driven by increased corporate sector participation

Several private HEIs have been established recently with the support of the corporate sector. These include (illustrative):

- ▶ Shiv Nadar University (2011)
- ▶ Azim Premji University (2011)
- ▶ Jaypee University of Engineering & Technology (2010)
- ▶ Dr. K.N. Modi University (2010)
- ▶ O.P. Jindal Global University (2009)

Source: Twelfth five year plan: Chapter on higher education; UGC

Source: MoE of India, Twelfth Five Year Plan: Chapter on HE, UNESCO: Global Education Digest 2011. National Center for Education Statistics USA)

The proposal of the 12th Five-Year Plan (FYP 2011-2015) for National Economic and Social Development (NESD) was approved on 14 March 2011 by the National People's Congress, China's top legislature.

The 12th FYP's guiding principles will promote the China government's focus on "inclusive growth," which means ensuring the benefits of economic growth are spread to a greater proportion of Chinese citizens. The plan's key themes are rebalancing the economy, ameliorating social inequality and protecting the environment. China's expenditure in education from the central public budget reached more than 1.2 Trillion Yuan (\$191 billion) during January-November 2010, an increase of 25.8% from previous year, according to 11th FYP reports.

The 12th FYP stresses the need for HE reform in science and technology, as well as the importance of developing a human resources strategy for finding and nurturing talent. Initiatives include improving scientific achievement evaluations and rewards system, encouraging even more highly-educated overseas Chinese to return to China to work and increasing investments in human capital. Below are some of the key facts extract from KPMG Insight Series.

Table 3. "China's 12th Five-Year Plan (2011-2015) - KPMG Insight Series

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|---|
| <p><i>a) nine-year compulsory education free of charge; accommodation fees exempted in boarding schools in rural areas during the years of compulsory education; b) secondary vocational education free of charge for rural students, students from urban families in economic difficulties and students studying agriculture-related majors; c) subsidies provided to children from families in economic difficulties, orphaned and disabled children to receive pre-school education.</i></p> |
| <p>12th Five-Year Plan vs. 11th Five-Year Plan: what is new?</p> <ul style="list-style-type: none"> • Education target: increase high school enrollment ratio from 82.5% to 87% |

Source: <http://www.kpmg.com/cn/en/issuesandinsights/articlespublications/publications/series/5-years-plan/pages/default.aspx>

ISSUES AND CHALLENGES FACING INDIA AND CHINA IN HE

Both India and China is increasingly being viewed as an emerging global power, a power that will shape the global balance of power in the 21st century. There are enormous obstacles, however, that India and China will have to overcome in order to sustain its present trajectory of economic growth.

Phil Baty, rankings editor for Times Higher Education, said in a statement: "As a country with a rapidly growing economy and a fine tradition of scholarship, it is a cause for concern that India does not have any institutions that are sufficiently highly regarded by international scholars that they feature among the global top 100 of our World Reputation Rankings (WRR). The 2013 edition, published on 4th March 2013, is based on the results of a wide survey. But in a little relief Times Higher Education revealed that if the WRR were to list more than just the top 100, India's top-ranked institution, IISc Bangalore, would be 130th. IIT Bombay would sit in 192nd place, but all other Indian institutions would fall outside a global top 200. Despite India's status as a rising global economic power and the producer of many of the world's best scientific minds, its universities apparently leave something to be desired. Compare to Indian Universities, China is far better in the WRR were Tsinghua

University ranked 35th and Peking University ranked 45th position. According to The (London) Times Higher Education WRR for Asia in 2012-2013, only three Indian institutions appeared on the list of the top 57 Asian universities -- Indian Institute of Technology, in Kharagpur (No. 28); Indian Institute of Technology, in Mumbai (34), and Indian Institute of Technology, in Roorkee (53). Rounding out the other biggest Asian vote getters were China (with nine universities).

The India's HES faces challenges on three major fronts — expansion, equity and excellence as stated in the 12th Five year plan report by UGC. **Expansion**, in student enrollment is growing:

While enrollment has grown in India's higher education institutions at an annual rate of 7.4% between 2001–2009, the country's growth lags behind that of China and Brazil, but is ahead of that of the US and Russia

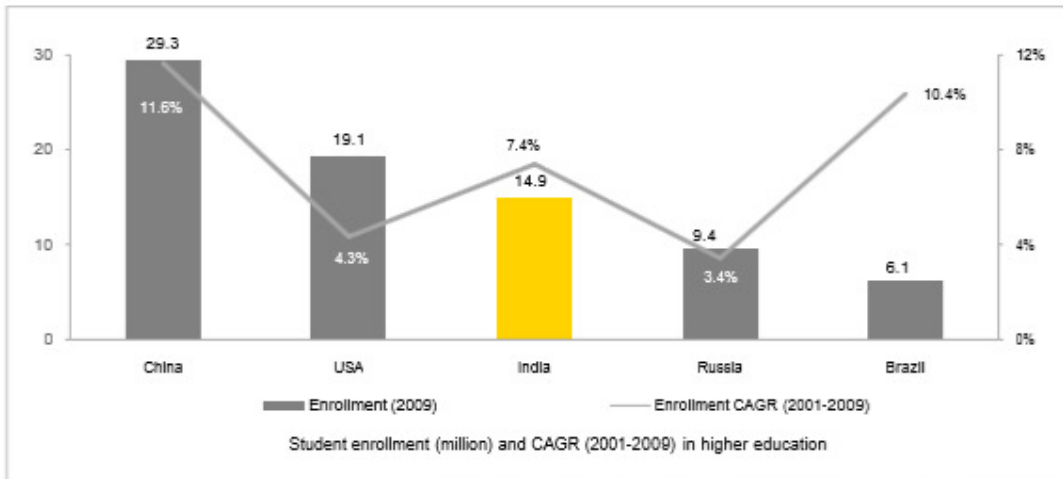


Figure 3: Source: World Development Indicators, World Bank, UNESCO: Global Education Digest 2011

Equity

There is wide disparity in terms of rural-urban, gender and communities. Key words: OBC-Other Backward Community, SC-Schedule Caste, ST- Schedule Tribe)

Access to higher education for all minority social groups is much below the national average.

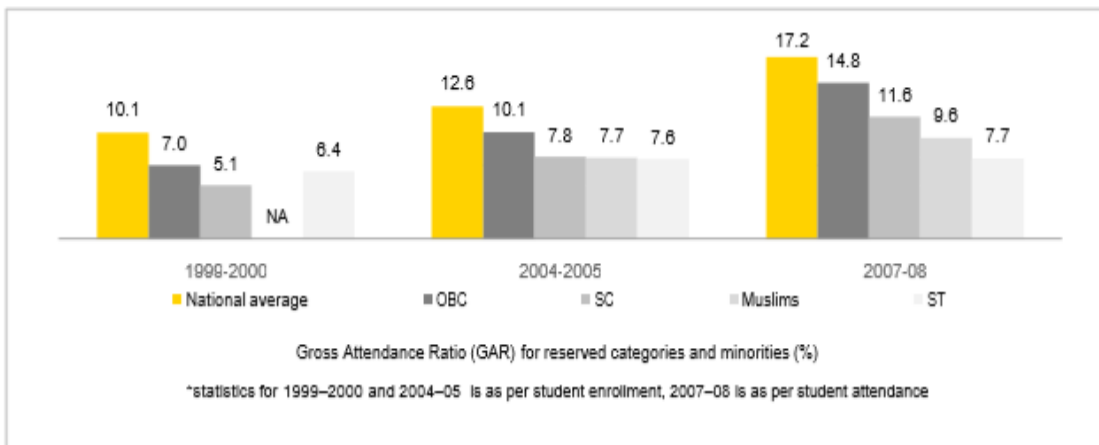


Figure 4: Source: Eleventh Five Year Plan: Chapter on Higher and Technical Education, Twelfth Five Year Plan: Chapter on higher education, UGC report: Issues related to expansion, inclusiveness, quality and finance November 2008

Excellence

Lack of research activity and shortage of high-quality faculty are plaguing the sector for both India and China when compare with world average.

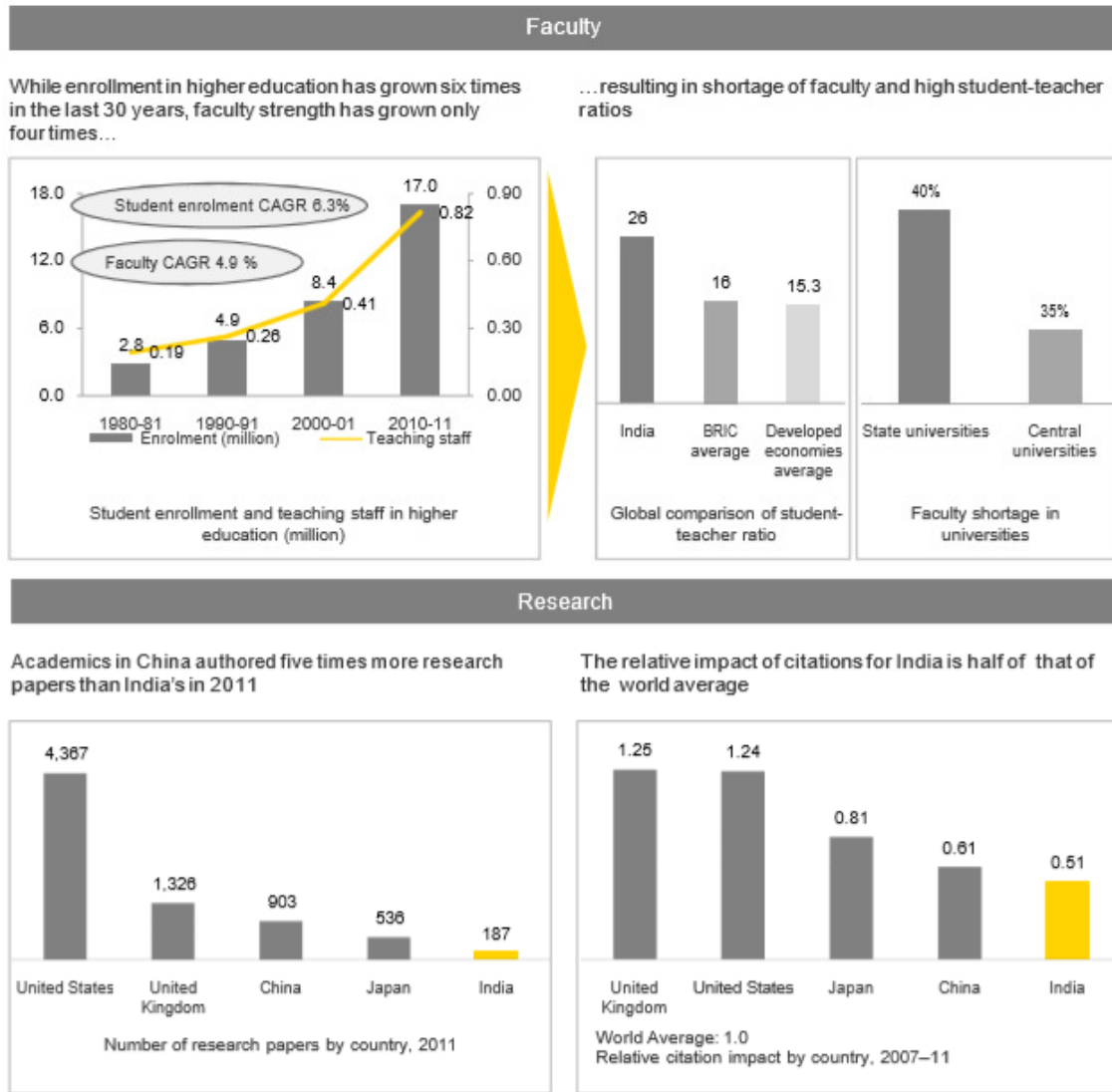


Figure 5: Source: Japan Science and Technology Agency website, Twelfth Five Year Plan: Chapter on higher education, FICCI education sector profile 2012

Teacher Quality Research, has shown that teacher quality is an important determinant of student outcomes (e.g., Rivkin, Hanushek, and Kain, 2005). Though there is no agreement on measures of teacher quality, for emerging countries such as China and India, teacher training, education, those are important indicators. The high dropout rates and teacher absenteeism indicate that India and China expenditures on education are not being utilized effectively. They need higher quality of teachers, lower student-to-teacher ratios, and better monitoring facilities to keep the quality of education high.

“For China to develop really world-class HES, it will need to ensure that the human and the philosophical ‘software’ are as well developed as the ‘hardware’ of buildings and laboratories,” Altbach says. The challenge of educating close to 90 million adult illiterates

and integrating them into the modern economy is a daunting one. However, with low fertility rates and an aging population, this is a priority that cannot be ignored. Strong growth in productivity is crucial for sustained economic growth; this demands a better-educated labor force that can be achieved only through educated population. Financing options for the students whose family income is lesser in rural and urban population need to be addressed. The problem of Brain Drain is discussed in every country which sends numerous students abroad. The Chinese Academy of Social Sciences (CASS) informed the government in its 2006 report on Chinese students abroad that 70% of the students studying abroad between 1978 and 2006 had not yet returned to China and that about 200,000 have achieved permanent residency, work permits or other documentation abroad (JIANG 2007, predominantly in Chinese). The issue of unemployment of university graduates seems to be both relevant and pivotal enough to be considered. Altbach's paper in *Economic and Political Weekly* describes China's HE governance arrangements as dysfunctional. Academic institutions at all levels are subject to extraordinary bureaucratic controls, often imposed by Government that sometimes creates administrative tension and certainly reduces self-governance by the academic community.

For India; According to the Association of Indian Universities, the number of international students has risen over 13,000 in 2004-05 to 21,000 in 2007-08. Despite a well-developed tertiary education system, India is unable to attract foreign students in its colleges and universities. Education of girls and improvement of literacy among the young adult women is of primary importance. Since this will lead to decreased fertility, decreased infant mortality, and increased awareness of HIV/AIDS among the rural Indian population. Just increasing the enrollments in HE will count for little if quality indicators are not improved. Fair education should be the key motive for HE no inequality along all dimensions—gender, geography, and ethnicity—needs to be reduced. Without a uniformly well-educated labor force, India's "demographic advantage" of a youthful population will remain unreal. Adequacy of Resources: A decline in the size of public spending on education in proportion to the GDP indicates the progressively decreasing priority of education, other critical aspect relating to systemic weaknesses is poor infrastructure, and lack of basic infrastructure is responsible for poor education indicators.

SUGGESTION FOR IMPROVING THE HES OF INDIA AND CHINA

HE is also essential to build a workforce capable of underpinning a modern, competitive economy. To ensure autonomy of institutions and enhancement of standards and provision for entry of foreign education providers are to be encouraged. There should be a strategic shift from mere expansion to improvement in quality HE that doesn't mean just larger enrollment, but also on the quality of the expansion. A holistic and balanced expansion approach is needed to target under-represented sections of society. More resources should be provided by the government as well proper governance mechanism should be there to monitor funds allocated are properly utilized and managed and accountability is kept. No students should be left without education considering the financial reasons. Enhancing Employability is the key for HE success; more the graduates need to be employed once they complete their graduation that is achievable with skills development in the course curriculum is enhanced and meet the industry requirements. Private sector growth in HE (including technical) should be facilitated and innovative Public-Private Partnerships (PPP) should be explored and developed to meet the future demands. Research areas should be explored and encouraged for staff and students, more innovation using Information and Communication Technologies (ICT) should be harnessed to enrich teaching learning experience, to extend and diversify delivery, improve research quality and collaboration by making knowledge and

information widely available, and ensure effective governance both at the institutional level as well the government level should be streamlined.

To address the challenges in the HE sector, several government initiatives have been proposed in the Twelfth Five Year Plan, India: Merit-based student financing, Internationalization of education, Enabling Research Environment, High Quality Faculty, Technology for education delivery, Employability and Collaboration (Source: Twelfth Five Year Plan: Chapter on higher education). By 2017, India's HE system can be expected to be better aligned to industry and global practices, to be more inclusive and transparent, and supported by enabling regulations. To overcome the lack of funding, lack of research, lack of teachers the Government of India also needs to bring a change in its outlook towards the education system and should invest money in state universities as they are the ones catering to the larger group of population.

China's recent emphasis on HE has been the culmination of an "organic" growth process that has evolved bottom-up from an initial emphasis on primary and secondary education. China have taken steps to overcome the gender gap in education has been equally impressive. By giving importance to female education, China has built a strong foundation for sustained growth and development. Education equality along ethnic lines has likewise been impressive. The decentralization of schooling administration, despite state-run schools and a bloated bureaucracy, coupled with an incentive-based wage structure for teachers and school choice have helped in quality delivery of education.

CONCLUSION

HE is an increasingly global enterprise; hence Indian and Chinese institutions should embrace internationalization that could provide them with new opportunities by creating more innovative partnerships. Both countries recognize that benchmarking their qualifications against international standards and to a qualification framework will help them fit within a globalising education world. India as an edge over China in terms of English speaking population is higher compare to China; India can potentially become a global hub for HE, provided greater autonomy to India's HES through its collaborative partnership with the best universities abroad.

If India wants to be in top 100 universities, India should not do what they are doing now. Indians only debate and discuss, make policies on education but in reality they never follow the five year plan (policies) that leads them to failure in implementation. Cut short the issues and political differences; instead focus on quality improvement, HSE that would sustain rapid economic growth, promote international competitiveness, and while at the same time meet the rising expectations of the young enterprising Indians. As Indian Prime Minister, Dr. Manmohan Singh said "The truth is that without education we will not be able to propel the growth of our economy, that's why we have to focus on education". "To fulfill India's growing economic requirements our government has given special attention to the education sector," he said. "Public expenditure on education has been increased from 3.3 percent to 4 percent of GDP (PM Speech on March 17, 2013).

Earlier in terms of defining a nation to be superpower was based on it's the size of national armies or possession of nuclear weapons or their higher GDP and got huge foreign currency reserve. "But now there is different set of benchmark is taken into account to evaluate a country by: the size and prestige of university systems with good quality HES they have. If the nation have more quality graduates leads to higher employment rates and larger earnings premiums, so individuals have strong incentives to pursue more education, and developing countries also have strong incentives to promote HE to build their populations' skills to fit

more specialized jobs. Trends are changing from global economic to knowledge economic in today world; nation can be successful if their population are well educated.

And, while the US is still the global HE "superpower", China will soon be knocking it off top spot if current trends continue. China is now the largest HES in the world: it awards more university degrees than the USA and India combined. Chinese HEIs are three times ahead of their Indian counterparts in research performance; a new comparative study has shown, exposing the deep chasm between the centres of higher learning in two Asian giants. The top 20 Indian institutes producing doctoral students are way off behind Chinese universities and institutes producing PhDs, according to an analysis by CSIR National Institute of Science Communication and Information Resources. "As China is three times ahead of India, we will have to spend three times more in HE to catch up," Gangan Prathap, NISCAIR director who did the analysis, told (Deccan Herald on March 2011). The report shows dramatic changes in the percentage of adults between 25 and 34 who have a college degree, with sharp gains by China and India and a drop by the United States.

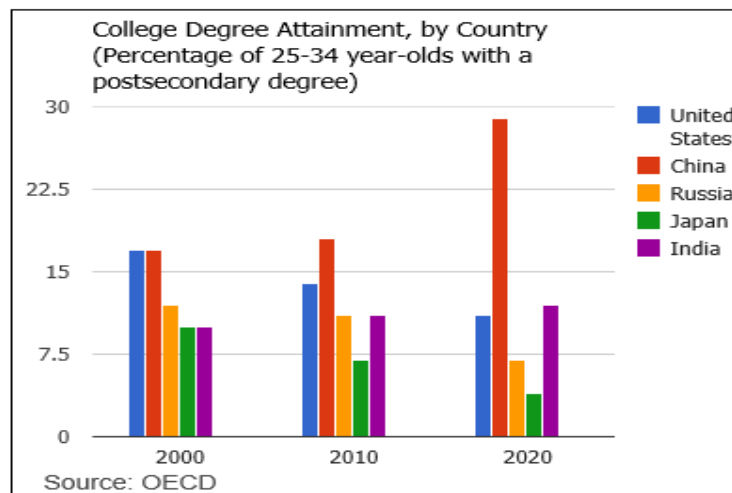


Figure 6: Source: OECD, 2012

China and India remains the largest provider of overseas students to British university campuses, but the things are started changing in long run due to quality education if provided in China or India at much lower costs, and rising prestige, of Chinese and Indian universities will make this a tougher market in future. As David Eastwood, chief executive of the Higher Education Funding Council for England told the conference: "We cannot assume that students will continue to come to the UK just because they always have".

So to retain the "superpower" status in HES India and China have to create and expect more competition between individual universities, and national systems, the reality is that collaboration and co-operation are equally important for the health of universities and how far the governments are funding the education system to keep pace with the global trend is also important. To succeed, universities now need to be global in their approach. Some 70% of the top 200 ranked universities increased the proportion of both their international students and their international staff, according to the THES-QS figures. So India and China want to keep race of superpower in education then the key focus should be on quality rather than quantity in terms of student numbers, more research in science and technology area should be focused along with technical skills development and build more competent students.

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