

## Landscape of Higher Education: A Comparison of India and China

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### *Abstract*

*China India and have largest higher educational systems, export the most number of foreign students to other nations and have sizable and both have large and comparable infrastructure in higher education. Over the years China's higher education has advanced significantly compared to India, more than quantitative improvements in higher education the quality of higher education is more relevant in this Global Knowledge Economy. The quality of higher education must be a major factor in the coming decades because only by providing quality education, highly skilled and qualified person can be created in accordance with demand of future society. The study mainly seeks to understand how far higher education contributes to economic development in both countries. The four parameters of Higher education considered for comparison of two countries under the study are Privatisation, Internationalization, and quality of research outcome and quality enhancement measures of Higher education in both countries.*

**Keywords:** *Higher Education, India, China, Knowledge economy, Privatization, Research outcome*

### **Introduction**

India and China are the two economically dominant and fastest growing countries in Asia. The population sizes of these countries are not significantly different, in 2021, According to the World Bank figures; India had an estimated population of 1.39 billion and China 1.41 billion with corresponding population growth rate of 1.0 and 0.1 respectively. According to United Nation projection of 2027 India may overtake China and become most populous county in the world. (Table1).

China India and have largest higher educational systems, export the most number of foreign students to other nations and have sizable and both have large and comparable infrastructure in higher education and Over the years China's higher education has advanced significantly compared to India . Education is considered as the pivotal factor in the beginning of 1960s with the pioneering studies of T.W. Schultz and G.S. Becker. Economic growth is recognised to be

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significantly influenced by education. Education raises labour productivity and also boost up human capital formation in any country. Education is essential both for future success of every individual from a micro economic view and overall economic development for a Nation from a macroeconomic perspective. According to Nelson Mandela “Education is the most powerful weapon which you can use to change the world.” thus knowledge acquired via education is foundation in any civilised society.

Higher education is the pivotal element of social and economic development. Over the past decades, higher education plays major role in social and economic development in any country and it is expected to continue in future also. Higher education can be seen of as a repository of knowledge and its application and that significantly contributes to economic development and growth through promoting innovation and raising students' levels of education and skills and thereby enhancing quality of life of people.

China has far outpaced India in terms of the number of top tier institutions, gross enrolment rates and in research output. In 2021 as per Times Higher Education World University Ranking, China has 97 institutions ranked or close to 6% of globally ranked institutions, whereas India share is only 4.3 %. As per the Asia Ranking 2022, India remains behind not only China but also it is behind Japan, and Saudi Arabia. Among top 100 universities there are only 4 university from India and only 17 Indian universities take a place among top 200 universities. whereas China also has nearly 30 universities listed in the list of 100 universities. As per the ranking Tsinghua and Peking universities in China’ are the top two colleges in Asia for third consecutive year

India and China, two largest and fastest growing economies in the world have recognized the value of a knowledge economy and the crucial role that higher education plays in fostering one. In order to produce highly educated workers and high-calibre research, China and India are both prioritising higher education as they work to develop more advanced economies. It has been noticed that China and India have different reform strategies for higher education. These approaches have undoubtedly been influenced by the difference in governance and economic development of the two nations. Over the past ten years, young adults (aged 24 to 34) with university degree have become more prevalent in OECD-G20 countries, and this trend is expected to continue over the next fifteen years. This growth is likely to be larger for women, expanding the tertiary achievement gender gap. China and India will continue to contribute the most adults with young education to the OECD-G20 pool despite anticipated declines in China's young adult population. If current

trends continue, China and India may make up a disproportionately high proportion of those in OECD-G20 who have postsecondary degree in science, technology, or engineering or a related field. There were around 66 million in the age group of 25-34 in OECD countries that had a postsecondary degree, as opposed to 64 million in G20 non-OECD nations in the year 2010. In OECD countries there were 51 million 25 to 34-year-olds with higher education degrees in 2000, compared to 39 million in G20 non-OECD nations. However, over the past ten years, this gap has almost closed. This is mainly due to latter group of nations spectacular growth in higher education. The number of people with higher education continues to be dominated by the rapidly expanding G20 economies, and most intriguing fact is that is about 40 percentage of that shares comes from India and China.

### **Data and Methodology**

This paper makes a comparative analysis of higher education India and China. For this aim, we shall mostly rely on the secondary data sources like census statistics or other survey data of each nation and other data sources like world bank, UNESCO, Economic Survey of India, All India Survey on Higher Education, Higher Education Evaluation Centre (HEEC), and data from Ministry of higher education in both countries.

### **Objectives**

India and China are economically dominant countries of the world and both are aims to build more vibrant higher education. This paper makes a comparative analysis of the higher education in India and China by analysing quality of higher education these countries by taking into account the unique socioeconomic and educational characteristics of this country. The four parameters of Higher education considered for comparison of two countries under the study are Privatisation, Internationalization, quality of research outcome and quality enhancement measures of Higher education in both countries. This study seeks to identify possible future actions that can take to improve the current situation of these countries. The paper also intend to make effort to produce some recommendations for policy decisions about future educational development in these countries.

### **Development of Higher Education in India and China**

China and India, the two most populated county in the world, India and China accounted for two fifth of world population. According to UN World population Prospects 2019, by 2027 India will

have more people than China and by 2050 the gap is expected to wider further. The rapid expansion of the talent pool highlights the crucial question of whether the future rise in supply of employees with higher education will be accommodated by the global labour market. As they underwent fast industrial and social change, China and India experienced similar conditions and difficulties in the area of education. In analogous circumstances, in the late 1940s, the two nations began constructing their national education systems. However, varying policies, approaches, and historical circumstances have led them to take deviant paths (Goldman et al., 2008).

The level of tertiary attainment among 25-64-year-olds is one of the lowest among OECD and partner countries with accessible data in both China and India as compared to globally competitive higher educational system of selected BRICS nations - Russia, Brazil and South Africa. In India the level of tertiary attainment among 25- to 64-year-oldis 12.9 % with rank of 44/44 in2021, whereas in China respective figure is 18.5% with rank of 41/44 in the year 2021. (Table1). But as compared to India, level of tertiary attainment in much higher in China among 25 -64 years old.

**Table No: 2**

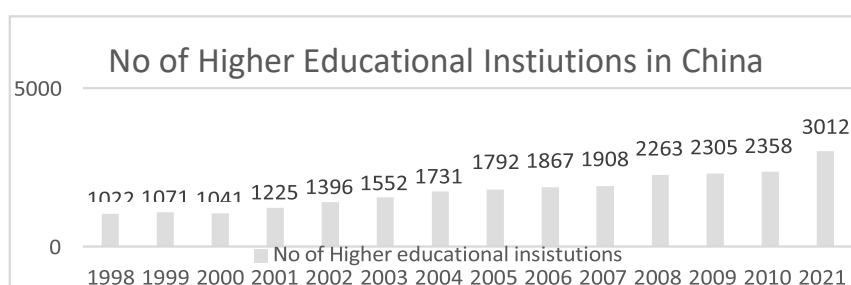
<b>Country</b>	<b>Percentage of Tertiary education</b>	<b>Bachelor's or Equivalent education</b>	<b>Master's or Equivalent education</b>	<b>Doctoral or Equivalent degree</b>
Brazil	20.7	19.6	0.8	NA
<b>China</b>	<b>18.5</b>	<b>7.8</b>	<b>1.1</b>	<b>NA</b>
<b>India</b>	<b>12.9</b>	<b>9.3</b>	<b>NA</b>	<b>3.7</b>
Russia	56.7	2.6	28.4	0.6
South Africa	15.8	7.0	0.9	NA
OECD Average	39.7	18.9	13.9	1.3

Source: OECD Data Base, 2020-21

In the early years of independence, India builds institutions like IITs and IIMs, which are now regarded as world-class centres of learning in the world. In the early years of 21<sup>st</sup> century there wasn't much gap between India and China in terms of the percentage of Gross enrolment in higher education and in the number of top ranked universities. Since then, China has advanced significantly past India. The "Action Plan for Building Chinese Universities Meeting the Demand of the 21st Century" was published by the Central Government in 1999. A significant policy change in the higher education sector resulted from this concept.

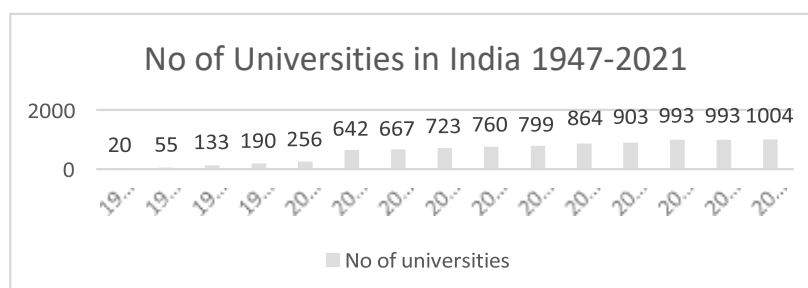
Early in 1950's India and China's approaches to education systems were more or less similar, however by 1960's they had begun to diverse in their approaches China concentrated more on lowering the rate of illiteracy throughout those years, whereas India concentrated on science and technology in higher education. As a result, China had improved literacy rates and achieved universal enrolment in primary schools decades before India(Kumar & Varghese, 2022).India and China has witnessed tremendous increased in its number of higher educational institutions over the past decades, India has 1043 universities 42343 colleges as per the latest with enrolment of 40 million students, whereas China has more than 3000 universities and colleges with enrolment of more than 40 million.

Figure No 1



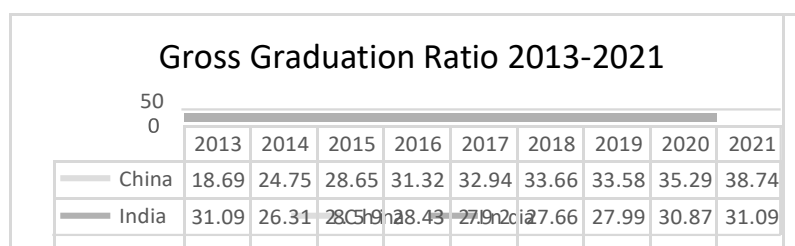
Source: Yuzhuo Cai (2013), Statistics communique of national education development 1998-2010

Figure 2



Source: AISHE

Only a small number of higher educational institutions in India received global ranking despite significant advance in both their quantity and student enrolment. China has surpassed India in terms of number of top tier institutions in world, gross enrolment rates in higher education and research output. At the time of Independent India witnessed establishment of world class institution like Indian Institute of Technology ,Indian Institute of Management , Baba Atomic Research Centre etc Since then India's performance lag behind several other developing nations . Figure 3



Source: UNSECO Statistics

The Gross Graduation ratio of both India and China showing an growing trend but comparatively the Gross Graduation ration of China overtake India in all the years. The Gross Graduation Ratio refers to total number of graduates at the specific level of education divided by the population at the typical graduation age form the specific level (Organisation for Economic Co-operation and Development (OECD), 2002)As per the data form Ministry of Education, China, In China, 240 million people have college degrees, and the newly increased labour force's average educational length now stands at 13.8 years. Higher education in China experienced an unprecedented surge in enrolment from 30 percent in 2012 to 57.8 percent in 2021, a rise of 27.8 percentage points. More than 30,000 specialised courses and 11,000 open online courses on innovation and entrepreneurship have been offered by colleges and institutions around the nation in addition to hiring 174,000 talented individuals as full-time and part-time teachers on the subject. As the QS World university Ranking 2023 world top 8 universities are from China, whereas form in India only top 3 universities is in the list. According to QS World University Ranking 2023 China has third largest share of ranked universities after UK and USA.

### **Privatisation and Quality of Higher education**

The quality education is the crucial requirement of any country; it determines how students perform in the educational system and is based on factors like infrastructure, curriculum, quality of faculties etc. World economy in many countries private sector has enter into higher education sector and play either limited or predominant role. And privatisation has grown significantly over the past few decades in many nations around of the world. Private colleges and universities have grown in number and enrolment in these institutions also appears to be rising. It shows that social demand for higher education is greater than the state of public supply globally and on the other side private entrepreneurs are prepared to deliver higher education on a large scale (Tilak, 1991). China's private sector is expanding and making comeback after thirty years, although it is not given the same priority to private sector in education as in India (Yeravdekar & Tiwari, 2014).

India followed the policy of excessive privatisation of higher educational institutions. India's approach to higher education led to robust growth in number of private institutions in the country , Whereas China gave more importance to government controlled public institutions with little space for privatisation . The public institutions in India are primarily concerned with providing minorities with enough reservation and low-cost access to higher education (wenjuan Zhang, 2018). In China 85% of higher educational students are enrolled in public educational institutions compared to OECD average of 71%, while only 15% are enrolled in private institutions. Large scale Privatisation will result in decreasing quality of education as because private educational providers are profit motive, as they aim to make more money from running educational institutions rather than improving the quality of education.

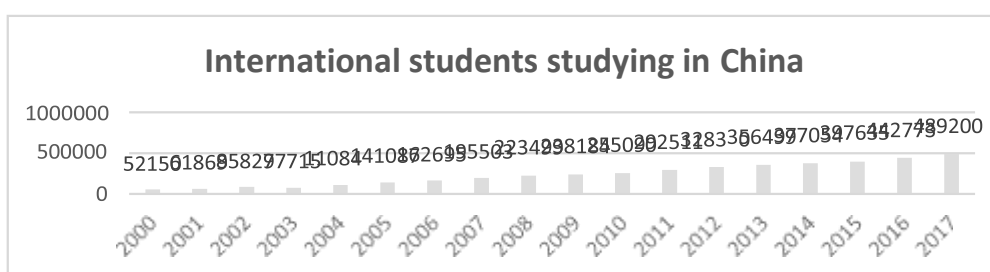
Public spending on higher education is really more important in any country ,in the present scenario the rationale for public spending becomes pertinent when there is erosion of public good nature of higher education (Mitra, 2015). In its goal of becoming a global educational powerhouse , China has made a conscious decision in the 1990s in the direction of transforming its higher education structure. As a result, China has made great strides in developing top tier universities that drew both domestic and international students. Since then, China has increased the percentage of its budget allocation to education, with the amount reaching 4.26% of its GDP in 2015. Spending on education had a significant impact on economic growth and income level and education spending have a long-term relationship in both China and India (Kaur et al., 2014). Economic growth is recognised to be significantly influenced by education. Education enhances labour force human capital, which in turn boosts labour productivity. This raises social welfare, which benefits all countries worldwide and has thus been a primary goal of every nation's policy. Investment in education is therefore essential for societal and economic development. The amount of money spent on schools, colleges, and other public and private institutions that support education is shown by the expenditure on education as a proportion of GDP. Public expenditure on education is the foundation of educational expenditure in China. Public expenditure on Education has a positive effect on economic growth in China. In China Higher education is the second largest contributor of economic growth.

### **Mobility of Students in search for better Quality Education**

Mobility of students include both internal and external mobility of students. Both India and China have encouraged international mobility of students but unlike China, India did not provide much

scholarship and internship to students for studying abroad except few institutions like IIT. Thus, in future the well-educated Chinese students pose a big challenge to Indian students seeking job in global job market. Lavak are the former secretary of the Science Advisory Council, government of India, and the former executive director to the US-India Education Foundation Noted that "India and China are considered to be potential major hubs in Asia for international students and in terms of higher education infrastructure, China and India are both very vast and comparable. China undertakes several measures to Internationalize it's higher education system and it attract 10 times more international students than India and as compared to China India take less effort to reform its higher education system".

Figure 4

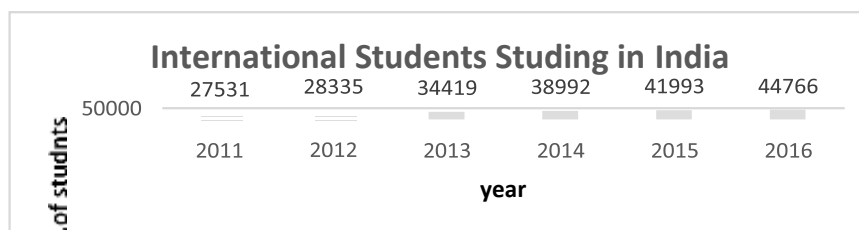


Source: Institute of International education, 2016 & Samson M. Tsegay (2019)

As compared to China the number of international students studying in India is very low in all the years. The data clearly indicate the fact that India is not a much-pounced destination for international student to carry their education, the number of students seeking education in India very pathetic as compared to chinses figures. This may be due to low quality of higher educationin India more than that the infrastructure in the areas of higher education in India is very low, orit is not sufficient to accommodate even for the Indian students, as the Times Higher Education World University Raking 2018 there was only 251 highest ranked institutions from India is in the list.

All over the world there is a tight competition in the global education and job market and as a result of their trend the demand for quality education also raising, thus everyone is seeking to studyin those countries that provide well quality education, this also result in large scale outbound migration of Indian students to other countries in searching for better quality education.

Figure 5



Source: UIS UNESCO

### Quality of Research Outcome in Higher education

The most spectacular performance in this area has come from China. The difference between China and India can also be seen in the volume and influence of cited research articles. The low level of research production, which is frequently a key metric in most university rankings, is one of the reasons why Indian institutions frequently don't make it to the list of top-ranked ones. China has been working diligently to modernise its higher education sector as part of its five-year plans since the late 1990s. It put more of an emphasis on research and eventually outpaced the US in the number of doctorates awarded. The overall research output is very low in the case of India (table 3)

**Table No 3: Publishing Research Metrics 1996-2017 (G20 countries)**

Countries	H Index
USA	267.6
UK	68.8
Germany	54.8
<b>China</b>	<b>39.2</b>
Japan	39.0
France	37.9
Canada	34.9
Italy	28.5
Australia	23.3
<b>India</b>	<b>12.6</b>
South Korea	12.3
Brazil	8.7
Russia	6.8
Turkey	5.0

Mexico	3.3
South Africa	3.1
Argentina	2.7
Saudi Arabia	1.4

Source: SJR SCI mago journal and country Rank database 1996- 2017

The H-Index or Hirsch Index measures the research impact of a scientist or an institution or a journal. There is a big gap between India and China in the number of cited research publication and its impact, China. It indicates low quality research outcome in terms of publication in India. 56,574 research publications are produced by China, whereas the corresponding figure in India is only 45, 152 in the year 2011]

### **Difference in Quality enhancement measures in higher education**

There is wide difference in approaches and methods followed by two countries for quality enhancement in higher education system. In China there is competitive ranking for faculty, disciple, university etc, and this Made Chinese's higher education system more competitive and market oriented. China has make its initiatives to quality control early in 1990s itself for this they make several merit based mechanisms (Wenjuan Zhang 2018) , Whereas as regarding quality enhancement in higher education India was too late and not very efficient , The quantitative improvements in Indian higher education is remarkable there is large scale expansion of higher educational institutions in the country , but more than quantitative enhancement the quality of higher education system is really important. According to Agarwal, former sectary of Higher education of India "Indian higher education system is lack of competition and culture". Recently Government of India try to make a changes in the situation by making several measures which include Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM), National Institutional Ranking Framework (NIRF), National Academic Depository (NAD), Technical Education Quality Improvement Programme (TEQIP) , National Knowledge commission (2005), Impacting Research Innovation & Technology (IMPRINT) etc .

Prof. Dr. Wu Yan (Director General of the Higher Education Evaluation Centre (HEEC) of the Ministry of Education, China) noted that "The quality of higher education is a major driving force to enhance national competitiveness, social development and wellbeing ". Three philosophies are adopted in China, including "Student- Centred," "Outcome-Based Education (OBE)" and "Continuous Quality Improvement (CQI)" for increasing the responsibility and autonomy higher

educational institutions , in addition “Five Level” Criteria are adopted, which stands for: the Level of “Fitness for Educational Purposes” , the Level of “Responsiveness to Public Demands” , the Level of “Supportability of Faculty & Educational Resources” , the Level of “Effectiveness of Quality Assurance System” , the Level of “Satisfaction of Students and Employers, thereby accomplishing all-around development of student’s and thereby increasing the employability as it helps in meeting the social demand . Through all these measures they place more attention on learning outcomes for student. Chinese government has long worked to create a system of higher education with quality assurance. the government has taken a number of actions since the start of the twenty first century including the polices and regulation, quality project, monitoring and evaluation etc. The Higher Education Evaluation Centre (HEEC), a public organization with a statutory mandate, was established in August 2004, and operate under the authority of the Chinese Ministry of Education. It is a national agency charged with ensuring quality of higher education, and it is responsible for providing multi-level evaluation, accreditation, and ongoing educational quality monitoring and consultancy services throughout the nation. According to S. Mahendra former Director, IGIDR, “India neglected basic education and skills since independence and concentrated on few like IITs, IIMs. India has a future if we use demographic dividend effectively with better education and skill improvement”.

### **Conclusion**

It may be concluded from the above discussion, that India and China are the two economically dominant and fastest growing countries in Asia. India and China have largest higher educational system, export the most number of foreign students to other nations. In terms of GDP growth competitively China dominates India, level of tertiary attainment in much higher in China among 25 -64 years old. Over the past decades, the number of higher education Institutions has greatly increased in both India and China . According to most recent statistics India has more than 1043 universities 42343 colleges as with enrolment of 40 million students, whereas China has more than 3000 universities and colleges with enrolment of more than 40 million. India followed the policy of large-scale privatisation in the higher educational sector. India’s approach to higher education led to robust growth of private institutions. Whereas China gave more importance to government controlled public institutions with little space for privatisation. India has very less international students studying as compared to China every year. China has surpassed India in terms of the number of top-tier institutions, gross enrolment rates in higher education, and research output by

a significant margin. With its finest universities, China has achieved great strides in Higher education, while India has also shown that high standard in higher education is attainable with its limed institutions like Indian Institute of Technology (IIT), Indian Institute of Management etc. There is wide difference in approaches and methods followed by two countries for quality enhancement in higher education. China has competitive ranking for faculty, disciple, university etc and this made Chinese's higher education system more competitive and market oriented. Thus Indian Higher education is lagging behind Chinese higher education in major parameters considered under the study such as quality of education, research outcome, internalization etc, thus India needs to be realise the importance of higher education and realise its potentials like demographic dividend and make its higher education system more competent through adequate policy measures.

### References

- Goldman, C. a., Kumar, K. B., & Liu, Y. (2008). Education and the Asian Surge: A Comparison of the Education Systems in India and China. *Center for Asia Pacific Policy*.
- Kaur, H., Baharom, A. H., & Habibullah, M. S. (2014). Linkages between education expenditure and economic growth : Evidence from ' CHINDIA ' *Journal of Business Management and Economics*, 5(5), 109-119.
- Kumar, N., & Varghese, V. (2022). *WIDER Working Paper 2022 / 64 Elementary education in India versus China Guidelines for NEP implementation. June*.
- Mitra, A. (2015). Public Spending in Higher Education in India. *Higher Education for the Future*, 2(1), 71-91. <https://doi.org/10.1177/2347631114558191>
- Ministry of Human Resource Development (MHRD). All India Survey on Higher Education. [www.mhrd.gov.in](http://www.mhrd.gov.in)
- Minstry of Education , People's Republic of China , <http://en.moe.gov.cn>
- Organisation for Economic Co-operation and Development (OECD). (2002). *Education at a Glance 2002: OCDE INDICATORS*. 1-383. <http://www.oecd-ilibrary.org/docserver/download/9613041e.pdf?expires=1438564362&id=id&accname=guest&checksum=310DA159B026605140E382A0A9C821A8>
- Tilak, J. B. G. (1991). The privatization of higher education. *Prospects*, 21(2), 227-239. – <https://doi.org/10.1007/BF02336063>
- wenjuan Zhang. (2018). Education Reforms. *India -China Chronicle*, 69(482), 136-137.

<https://doi.org/10.1177/019263658506948228>

Yeravdekar, V. R., & Tiwari, G. (2014). China's Lead in Higher Education: Much to Learn for India. *Procedia - Social and Behavioral Sciences*, 157, 369-372.

<https://doi.org/10.1016/j.sbspro.2014.11.041>