Gross Enrolment Ratio in Higher Education: An insight into the enrolment issues of India and China

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Abstract

Acquisition of skill and knowledge has become an integral part of the education in the twenty first century. According to neo classical theories it helps to raise the productivity of human being. Educational system especially higher education in all developed countries has already internalized this skill and knowledge into their curriculum. In those countries participation of students in higher education has already achieved a new feat and the economy of those countries have been benefiting from this early start. Compared to that, emerging countries like India is lagging far behind the developed world on this issue. New education policy 2020 has stressed the importance of raising skill and knowledge among the learners. If India desired to be benefited from the demographic dividend of the country, participation of the students in higher education has to be increased. Other emerging economy like China which happens to be a country with one hundred and forty crores plus population like India had started their journey as an independent country in 1949, just two year later than India. But China had achieved more than double in terms of gross enrolment ratio compared to India which is an indicator of participation in higher education. Since India and China has always been compared on development aspect, this paper intends to study the status of participation of students in higher education in both India and China. An attempt has been made to assess the disparities in terms of few selected parameters. The study found that per capita income, literacy rate and expenditure on education by the state should be raised.

Keywords: Higher education, Participation, Gross enrolment ratio, Net enrolment ratio, Gross Domestic Product, Per capita income

Introduction

The progress of the society as well as the individuals depends on the development of the education system of the country. The education system must emphasis both quantity and quality aspects of education. Increasing access to schooling at the elementary level in India is reflected in the rising Gross Enrolment Ratio (GER). Over the years policy makers put emphasis on the expansion of elementary level of education which is considered to be the foundation of the education system. The enactment of Right of Children to Free and Compulsory Education (RTE) Act 2009 has an important role to play in this direction. India needs to focus equally on the secondary, higher secondary and beyond higher secondary level of education. This is the need of the hour as 29.5% of the total population of India as per 2011 census belongs to the age group of 0-14 years old. This burgeoning young population may be converted into an enriched human capital which will help to increase productivity of labour and output. This conversion of human resources into an effective human capital can be made through the attainment of good quality of education. It is instrumental in raising earnings and reducing inequality of income. If India is to get 'demographic dividend' from this huge youth population, it is imperative to pay due attention on the quality aspect of education both at school and higher education level. To make the education system more inclusive and equitable, participation from the masses irrespective of their class, gender and place of residence is crucial. Participation of students in the education system is measured in terms of Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER). These are the common practices of measuring the participation rate across the world. GER is defined as the ratio between the total enrolment in a particular educational cycle, regardless of age and the total number of children in the official age group corresponding to this level of education. NER is the number of pupils enrolled from the age group that officially corresponds to a particular education cycle divided by the total population of the same age group.

Literature Review

One of the important components of the educational outcome is participation of the learners in educational institutions. Due to the commendable efforts of government and non-governmental organization participation in elementary education in India has shown a remarkable progress. GER of the elementary education (I-VIII) reached to 100.1 percentage in 2021-22. In case of secondary education, it stood at 79.6 percentage and for higher secondary level it was 57.6 percentage in 2021-22. For higher education the same is 28.3 percentage in 2021-22. Therefore, a good number of students are not pursuing higher studies in India. Compared to some other emerging economies like Brazil and China, India is lagging far behind them. Since the global economy has been increasingly becoming a skill and knowledge-based economy, importance of higher education in economic development is immense (Tilak 2003). Keeping in view of that, New Education Policy 2020 envisaged GER to be raised to 50 percentages by 2035. A good number of literature found a number of factors in determining the participation in higher education. Study by Bhakta (2015) found social status of the family has contributed an important role in achieving higher participation rate in higher education. The same study also found that even after controlling the social status it was the expenditure on higher education that played a significant effect on the participation in higher education. This has a bearing effect on the society since the introduction of new economic policies (1991) the proportion of expenditure on education by households has increased substantially (Panchamukhi 1990, Varghese 2013). A study by Tilak and Choudhury (2019) based on unit level data from 68th and 71st rounds NSSO survey revealed that the economic status of households had profound effect on the participation in higher education measured in terms of gross attendance rate. The probability of attending higher education is more for rich compared to poor. Inequality in participation between rich and poor actually widened over a period of seven years, from 2007-08 to 2013-14. Khan (2021) found similar findings by using 75th round National Sample Survey data. In addition to that this study found that social and religious affiliation of the family of the student are deciding factors to access the higher education.

Objective of the Study

This paper intends to evaluate the status of participation of students in the higher education in India and China. An attempt has been made to assess the disparity in participation rate in terms of few selected parameters.

Data Base and Methodology

This paper is based on the secondary sources of data collected from the official website of the World Bank, Ministry of Human Resource Development (MHRD), Government of India; National Bureau of Statistics of China. The study is based on descriptive analysis.

Findings and Discussion

Both India and China got independence more or less at the same time. Both are emerging economies. Both of them have huge population having one hundred and forty crores plus each. They started with almost same GER in tertiary education having 9.67% in India and 9.23% in China in 2001.But over the years China progressed a lot. GER of China became 67.39% and for India it was 30.33% in 2021. Interestingly GER of China in the higher education was lower than that of India in 1981. It was only 2.06% in China as compared to 5.19% of India. GER of China increased by 33 times during the period 1981-2021. During the same period India was capable to increase the GER by 6 times only. Table 1 shows the Gross Enrolment Ratio of India and China in the higher education during the period of 1981 to 2021.

Table 1: Gross Enrolment Ratio in tertiary education (%) (1981-2021)

Year	India	China
1981	5.19	2.06
1991	5.93	2.89
2001	9.67	9.23
2011	22.49	26.81
2021	30.33	67.39

Source: World Bank (https://data.worldbank.org)

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The participation of students at the school as well as higher education level of a country depends on a number of factors like level of economic development, per capita income, poverty level, literacy rate, percentage of GDP spent on education. Gross Domestic Product of China increased manifold as compared to India during the period of 2001 to 2016. Table 2 shows GDP measured at constant prices of 2015, USD.

Table 2: Gross Domestic Product (Trillion USD) (Constant 2015 USD)

Year	India	China
1981	.287	.444
1991	.470	1.12
2001	.839	3
2011	1.616	8.275
2021	2.761	15.851

Source: World Bank (https://data.worldbank.org)

It shows that GDP of China was 3 trillion USD in 2001 as compared to 839 billion USD of India. Therefore, China's GDP was 3.5 times higher than that of India in 2001. First decade of 21st century saw a tremendous growth of GDP in China. It increased to 8.275 trillion USD. During the same decade India's GDP increased to 1.616 trillion USD. China kept the pace of growth of GDP and it reached to 15.851 trillion USD in 2021. This helped to raise the per-capita income level and reduce poverty level of China to a great extent. Table 3 shows per capita income of India and China during the period of 1981-2021.

Table 3: Per capita income (Constant 2015 USD) (1981-2021)

Year	India	China
1981	403	447
1991	529	975
2001	778	2360
2011	1285	6153
2021	1962	11223

Source: World Bank (https://data.worldbank.org)

Per capita income of China measured at constant prices of 2015 USD was 6 times higher than that of India in 2021. Poverty rate of China measured by the percentage of people living on the equivalent of 1.90 USD or less per day in 2011 purchasing power parity terms, was 7.9% compared to 21.2% of India in 2011. Such reduction of poverty level in China may help the

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poor to access the higher education. Opportunity cost of enrolment in educational institutions by the students of low-income families is high. Therefore, presence of high-level poverty in a country compels poor children not to enroll or even if they enroll, there might be chances of drop out in the midway of their studies. Incidence of high poverty rate of 21.2% in India in 2011 may have an inverse effect on the enrolment in higher education. Table 4 shows the expenditure on education as a percentage of GDP in India and China during the period 2010-2021.

Table 4: Expenditure on education as % GDP (2010-2021)

Year	India	China
2010	3.3	3.8
2011	3.8	3.5
2012	4	3.9
2013	3.8	3.7
2014	3.9	3.6
2015	4.1	3.8
2016	-	3.8
2017	4.3	3.7
2018	-	3.5
2019	-	3.5
2020	4.3	3.6
2021	4.6	3.3

Source: World Bank (https://data.worldbank.org)

China has been spending a large share of GDP on education. The Government's goal over 4% of GDP on education, target fixed by The National Medium and Long-Term Education Reform and Development Programme (2010-2020) had been missed by a very narrow margin in 2012. Government spent 3.9% of GDP on education in 2012.It has been found from the table 4 that India in many occasions has been successful in spending more than 4% of GDP. But the value of expenditure in absolute terms is more in China than that of India. Kothari Commission (1964-66) recommended 6% of GDP on education in India. This target has not been fulfilled at all till date.

In terms of adult literacy rate which is shown in Table 5, China is far ahead of India. China attained 95% literacy in 2010 whereas India achieved 69% in 2011. Literacy among the parents may have positive effect on the enrolment of their children.

Table 5: Adult Literacy rate (% people aged 15 & above) (1981-2011)

Year	India	China
1981	40.76	-
1982	-	65.5
1990	-	77.78
1991	48.22	-
2000	-	90.92
2001	61.01	-
2010	-	95.12
2011	69.3	-

Source: World Bank (https://data.worldbank.org)

Summary and Policy Prescriptions

By comparing the GER of the two countries, it is found that China is far ahead of India. An in-depth analysis with the relevant secondary data revealed that China has high GDP and per capita income. Percapita income of China measured at constant prices of 2015 USD was 4.8 times higher than that of India in 2011. Poverty level has been reduced to 7.9% in China compared to 21.2% in India in 2011. China has been spending a large amount of money in absolute value on education sector over the years. The country is successful in increasing adult literacy rate at a commendable height. If India is to gain from her potentially huge human resources, she has to give due attention to increase GER on higher education. At the same time quality of higher education must be strengthen. Kothari Commission (1964-66) recommended that 6% of GDP should be devoted on education. The Government in its National Common Minimum Programme (2004) emphasized the same. But in reality, it never reached that point. Following prescriptions may be followed.

- Increase in GDP growth rate over a stipulated time frame and benefits of this increase must reach to the bottom level of the masses.
- Poverty eradication programme must be strengthened.
- Proper attention should be given to increase adult literacy rate.
- Money spent on education sector must be increased and it should be used efficiently.
- Recommendation of Kothari Commission (1964-66) that 6% of GDP should be spent on education is to be implemented.

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