

Economic Implication of Massification in India

Dr. Pearly Jacob

Head, Department of Management, St. Aloysius College (Autonomous), Jabalpur, Madhya Pradesh, India

Abstract: *The world has experienced the knowledge revolution along with mass growth in the population. To keep abreast with the revolution and changing times the education system had to revamp and become inclusive to be equitable to everyone. Knowledge revolution has caused us to move from one aeon to the other, but the grotesque reality of the present time has been the disparity amongst the masses. We have moved from Moon to Mars, from huge ringing boxes of telephones to the smallest slimmest smartphones, we have moved from papyrus to kindle, yet knowledge is not accessible to everyone. We have the right to education, but has the education rightly reached everyone. The new education system with its innovations and ‘disruptions’ focus on the skills, employability and inclusiveness, but on the way of achieving it, it has lost its essence and sanctity; the so called contemporary interests. This paper focuses on the economic implications of massification in India. This paper is focused on discussing the repercussions of massification in the Indian higher education system. The first part of the paper focuses on demographical details like population vis a vis the number of higher education institutions and on the inequitable diaspora of higher education, when its very objective is to be inclusive yet there is a disparity in reference to the gross enrolment ratio on the basis of social categories. The second part of the paper accentuates on the array of advantages of massification namely betterment in the status of women because of government initiatives, the improvement in contribution of the service sector to the GDP because of the education. Some of the convergence area illuminated in the paper are inappropriation of funds, quality of faculty, continuous degradation in the quality of higher education leading to incompetent unemployable graduates, misappropriation, delineation and corruption when involving public private partnership in higher education. The last part of the paper concludes on a positive note yet with caution and suggestions for improvisation of inclusiveness without losing the savor of higher education system.*

1. Introduction

“ Educated differ from the uneducated as much as the living differs from the dead”. Aristotle.

The world has experienced the knowledge revolution along with mass growth in the population. To keep abreast with the revolution and changing times the education system had to revamp and become inclusive to be equitable to everyone. Knowledge revolution has caused us to move from one aeon to the other, but the grotesque reality of the present time has been the disparity amongst the masses. We have moved from Moon to Mars, from huge ringing boxes of telephones to the smallest slimmest smartphones, we have moved from papyrus to kindle, yet knowledge is not accessible to everyone. We have the right to education, but has the education rightly reached everyone. The new education system with its innovations and ‘disruptions’ focus on the skills, employability and inclusiveness, but on the way of achieving it, it has lost its essence and sanctity; the so called contemporary interests.

Higher education is the major engine of economic development and therefore an emerging economy like India has to focus on its higher education for its growth and development. The quality universities are seen as centres for excellence because of their research prowess and reputation for excellence. To keep up the standard of excellence and quality the accrediting bodies have been placed as the custodians of the quality standards of the higher education in

India. They have been exclusively given the charge to brainstorm, innovate, institutionalize and internalize the quality standards and benchmarks as per the global higher education norms. But to the dismay and apathy none of the institutions of higher education or university are able to make the way to the top 100 university list in the world. It's time to introspect the reasons. On one hand we have tried massification for inclusiveness, to provide equity and equal opportunity to the everyone. On the other hand its improper governance and lack of financial sustainability has led to the growth of another kind of malignancy. The present higher education system is facing a mammoth problem of mass degree holding incompetent, unskilled and unemployable youth having unrealistic dreams. The higher education system is right now facing plethora of issues like degradation in its quality, skewed growth, lack of resource including human resource, inability to balance multiple challenges of gender equality and sect equality.

1) Demographic View of India

India, with 1.28 billion people (Figure 1) is the second most populous country in the world; that is almost 17.31% of the world's population, which means one out of six people on this planet live in India. With the population growth rate at 1.58%, and having more than 50% of India's current population is below the age of 25 and over 65% below the age of 35. But ironically India also has the largest illiterate population in the world. The literacy rate of India as per 2011 population census is 74.04%, with male literacy rate at 82.14% and female at 65.46%.

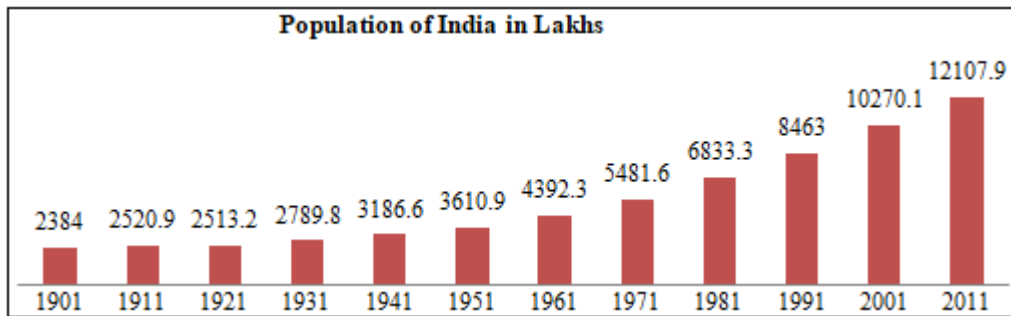


Figure1: Population of India from 1901-2011

Data Source: Central Statistical Organisation

In the light of the above facts we find that there is a huge gap of demand and supply of higher education. Though the number of institutes have grown at a compounded annual growth rate (CAGR) of 11% on the other hand the student enrolment has been growing at a slow pace of CAGR of 6%; thus leaving behind a huge chunk of students uncatered to and deprived of the opportunity to pursue higher education. Which means only 1.4 crore students are lucky enough to have got the opportunity to be enrolled in one of the 31,000 higher education institutions across the country. Yet we boast of the accomplishments when they are cited in the OCED report that India stands as world's largest academic system with enrolment of 20% of its population in this age group. Which in reality is not even half of the population falling in this bracket.

Not on a very pessimistic note, but we can still pat our backs when we turn around and look at where we started and where we are now. The last two decades have witnessed an

exponential growth in the Indian higher education system because of the massification movement in higher education. To give ourselves some positive boost in the last decade, here are some facts and figures. The number of universities in the country has grown at a CAGR of 7.5% as against the 4.7% growth observed from 1951-2001. The number of colleges has grown at a CAGR of 11% in the period 2001-2011 as against 6.1% in the period 1951-2001. The massification movement has led to increase in institutions of higher education with approximately 37,000 colleges that is 26 colleges for every one lakh of population with an average enrollment of 800 students per college. In a consolidated way there are approximately 1,91,227 in 2013-14 private and public institutions of higher education in India, by far almost 417 percent increase from just 37,220 in 2005-06. This though is the strength in itself for our nation as we move towards the march from developing nation to emerging economy to being the prowess in the education and business.

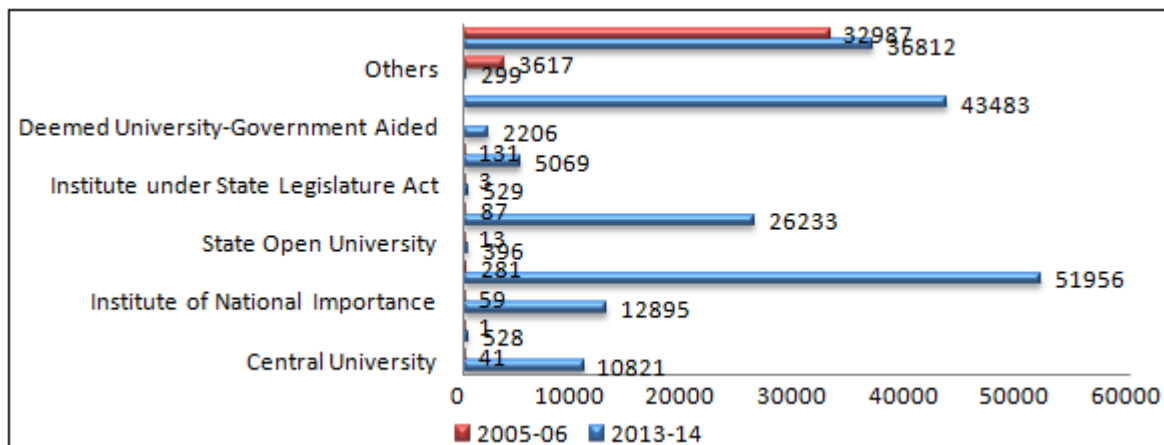


Figure 2: Number of Institutions in 2005-06 and 2013-14.

Data Source: MHRD database

2) Inequitable Diaspora of Higher Education

India is a diverse nation with different geographical boundaries, cultures, caste, creed and economic diversity, yet it has tried to cater to every people group equitably amidst all odds. Therefore the very objective of massification movement was to provide equitable opportunity to all classes and especially to the marginalized, the backward and the weaker sections of the society. The gross enrolment ratio helps us to see whether every section

has been equitably catered to. The Gross Enrolment Ratio (GER) in Higher education in India is calculated for 18-23 years of age group. Total enrolment in higher education, regardless of age, expressed as a percentage to the eligible official population (18-23 years) in a given school year. The GER is widely used to show the general level of participation in and capacity of higher education.

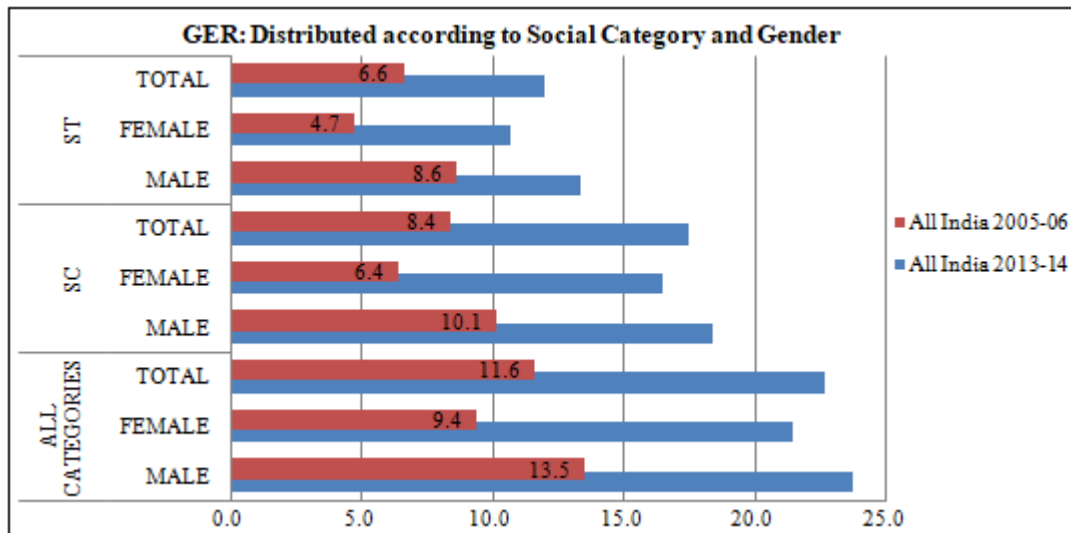


Figure3: Gross Enrolment Ratio: Distributed according to Social Category and Gender
Data Source: MHRD database

The massification movement has increased the GER four times from 8.1 in 2001-02 to 22.6 in 2013-14 (figure 4) yet it has not equitably been available to everyone.

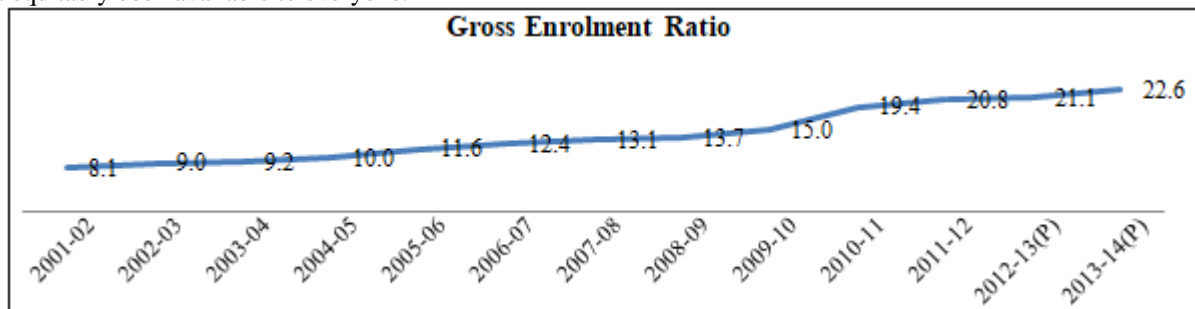


Figure 4: Growth in Gross Enrolment Ratio
Data Source: MHRD database

In 2005-06 GER for female ST was 4.7 and in 2013-14 it is 10.6 which has improved yet it is below the rest of the categories mark (Figure 3). The student enrolment ratio in comparison to other categories found that the minorities have only 3 percent enrolment (Figure 5). The grueling fact of the day is that though the government has tried its level best to include all and provide facilities and incentives to give equal opportunity to all but sadly the scheduled tribes have been left out. Therefore if we dream of a nation where all are treated equally and are given equal opportunities. That is efforts should be made specifically for the Scheduled Tribes to be brought in the mainstream of growth and development.

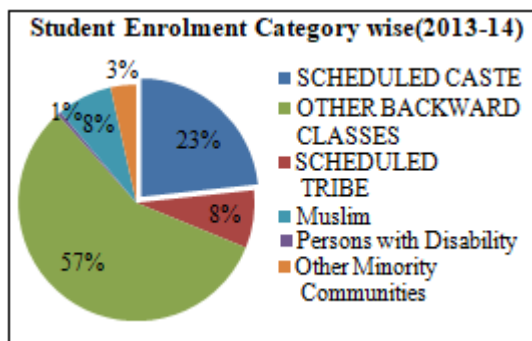


Figure 5: Student Enrolment Category-wise for 2013-14
Data Source: MHRD database

3) Women Empowerment through Massification

Massification has led to Women empowerment where women in India are leading in every field. There has been a gradual increase in the enrolment of the women. Jawaharlal Nehru the first Prime Minister of India said if you educate a woman you educate a community. The female gross enrolment in higher education increased from 2.6 in 2001-2002 to 9.7 in 2012-2013. The number of female teachers per 100 male teachers has also increased from 59 in 2010-2011 to 64 in 2012-2013. The government has started many women empowerment programmes to assist the women: the scholarships for girl students, the financial assistance program for the doctoral and post doctoral studies, etc. that has enabled the growth for the women. Approximately 39.3 lakhs women graduated in 2012-2013 in comparison to 40.1 lakh men in higher education, of which 8577 women completed their PhD. This is one of the feathers in the cap of the higher education that women have taken lead in education. The girls are the toppers in school and college examinations and they are taking lead in every field yet their a lag when it comes to top jobs where they have to prove their mettle and fight discrimination against them.

4) Impact of Massification on Economic Development

Higher education is seen as a pathway to a better future. There is great aspiration in the mind of people with regard to higher education. People take up higher studies with the

hope that their future will be secured and better. The fact that individuals with more education have higher earnings is an indication that education contributes to growth. The education, higher earnings connection reflects a macroeconomic approach to the relation between education and economic growth. Greater earnings for the more educated in this approach represent higher productivity hence, an increase in educated labor in the economy is associated with increased economic output and higher growth rates. A quick glance into the sectors contributing to the Gross Value Added (GVA) growth rate reflects that the service sector has 52.52 percent contribution in the total GVA of India in 2014-2015. In 1950-51 the GDP contribution of the service sector was 29.54 percent which has risen to 59.93 percent, reflecting the remarkable growth owing to the growth in the education sector. This is the result of a stream of new ideas and technologies stemming from universities being translated into productivity. The GDP contribution by the service sector reflects not only its potential but its capacity to be a greater contributor to the GDP if the skilled and education sector is given more impetus to grow

The economic impact of higher education is measured through the dynamic approach, reflecting the appreciable growth in GDP and employment. An institution's economic impact takes many forms like University faculty has been lending their expertise to area companies, research agencies, government agencies and non-profit organizations. Increasingly, they have been collaborating directly with businesses large and small to commercialize products and processes developed in research, using a variety of technology-transfer model. Therefore the contribution of higher education has not just been the production of competent, educated and skilled youth but by far more, in

developing technologies, patents, products, new ideas and much more. Though the economic effects of universities in their regions have been considerable, and these effects should have played an increasing role in the calculations of the value of public investment in higher education and in attempts to stabilize and enhance regional economies but it has failed to influence the government to allocate required funds for the growth in reciprocity to its contribution to the gross domestic product.

5) Expenditure on Higher Education

Central and State governments, both share the responsibility of funding higher education. There are several private managed institutions which raise funding from self financing programmes and do not depend upon government. The compound annual rate of growth of total public expenditure on higher education by education departments during 2000-2001 to 2008-2009 was about 11 percent. The growth rate of state expenditure was about 8.9%, whereas the Centre has increased its spending by about 15.7% during the same period. The total expenditure on Revenue Account at the all India level during 2012-2013 formed 27.80% of the total Gross Domestic Product (GDP) and only 3.45% of the GDP was provided in the budgets of the education departments. When the provision for education in all departments, including education departments is taken into account this percentage works out to be only 4.29%. The expenditure in higher education by government was just 0.89% of GDP in 2012-2013 in 2005-2006 as compared to only 0.94 % of GDP as per the data published by the Department of Human Resource Development as against the contribution to GDP of 60% by just the service sector which is the representation of the higher education sector.

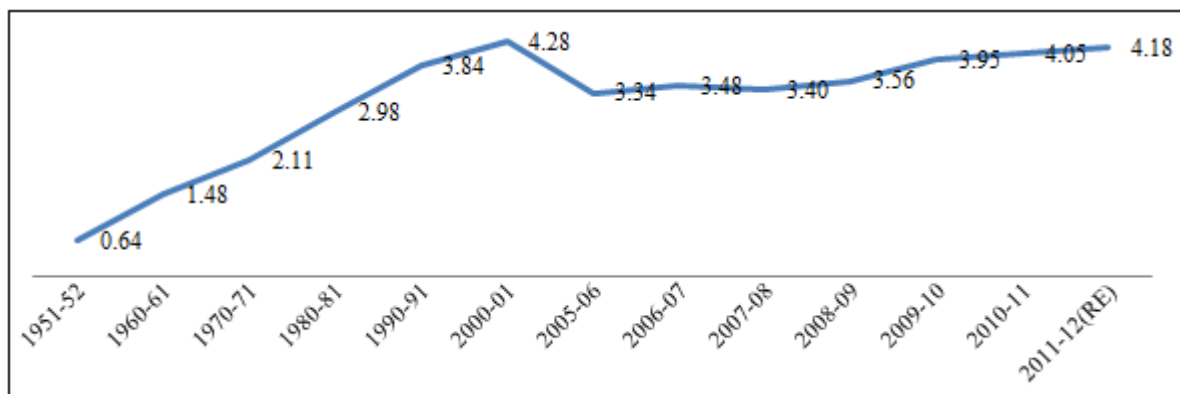


Figure 5: Total Expenditure on Education as percentage of GDP

Data Source: MHRD database

This reflects the gross insouciance towards the higher education, on one hand we are looking forward to the young India, which will be the future and the skilled workforce of our nation on the other hand, we are oblivious to our investment and spending on higher education which amounts to less than even one percent of GDP. If we fail to increase the investment in the higher education sector soon the growth rate will be affected. Looking into the components of higher education budget, it can be easily traced that there is a wide gorge in the areas which require investment for quality education. Quality of education can

be enhanced when the quality of faculty and quality of infrastructure is maintained. Though a lot has been done on improving the quality of infrastructure but not enough is done to sustain and maintain it. The second area of improving and investing on the quality of teacher has been neglected. There are many posts lying vacant for faculty in many of the institutions of higher education. Some of the pertinent issues which have been the cause of quality impediments are as follows:

6) Improper appropriation of funds in Higher Education

Massification in higher education has led to skewed growth in number of colleges vis a vis number of faculty. The government has cut the subsidy in higher education and impelling the institutions of higher learning to run the courses and programs as self financed courses thus leading to commercialization of the institutions, which conflicts with their social, cultural and academic fabric. Many institutions which are in an impoverished stage, located in backward or undeveloped areas find it difficult to generate revenue which has precipitated to improper infrastructure, dilapidated conditions of equipments because the funds are allocated for the equipments and instruments but no allocations are made for recurring expenses like its maintenance and chemicals thus many laboratories are inoperational.

7) Quality of Faculty

The bare reality is this; the ratio of the number of institutions of higher education to the number of teachers is only 1.2.

(Figure 6 & 7) Thus reflecting a huge gap between the teachers employed and the vacancies existing in the institutions of higher learning. In response to financial pressures universities and government institutions have sought solutions not only the revenue generating but on the cost containment sides. Strategies such as increasing class sizes and teaching loads and substituting lower cost part time faculty for full time academic staff. The concept of guest faculties, adhoc teachers and visiting faculty has taken over, the regular recruitment of the qualified teachers thus reducing the cost for the administration and government but in turn leads to uncommitted teachers and sacrificing quality of teachers. This affects the research capacity to be limited to only a select few institutions, the quality of output is compromised and thus it hampers the growth of the nation. The teaching profession has therefore become a low paid vocation thus repulsing high caliber human resource. This has in turn deteriorated student teacher ratio, problems for academic professionals and general impoverishment of academe.

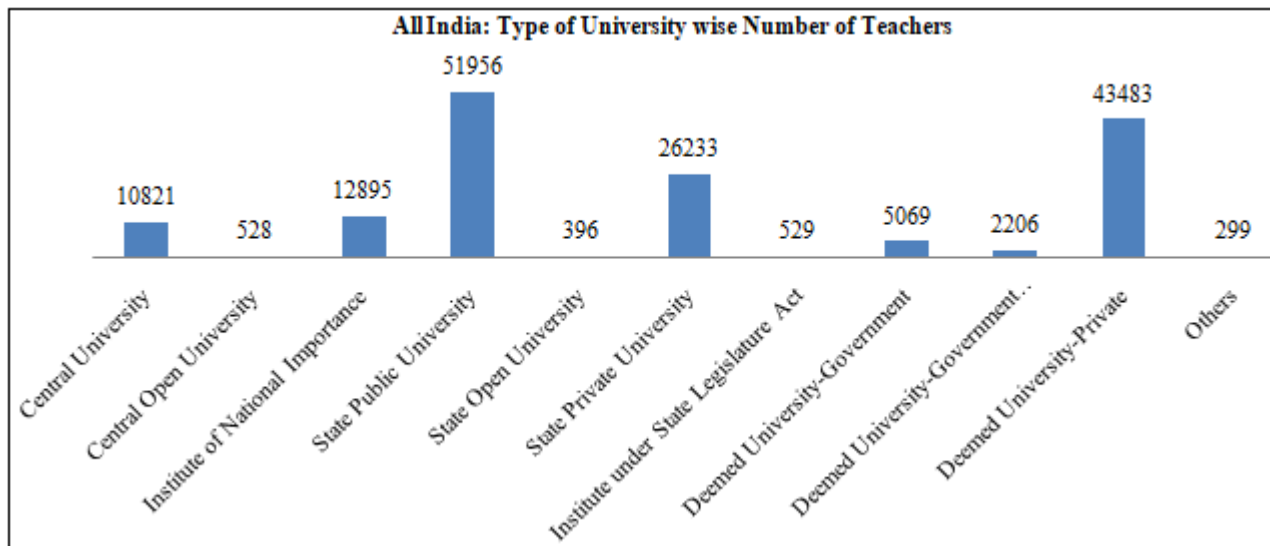


Figure 6: 2013-14 Number of teachers in various institutions
Data Source: MHRD database

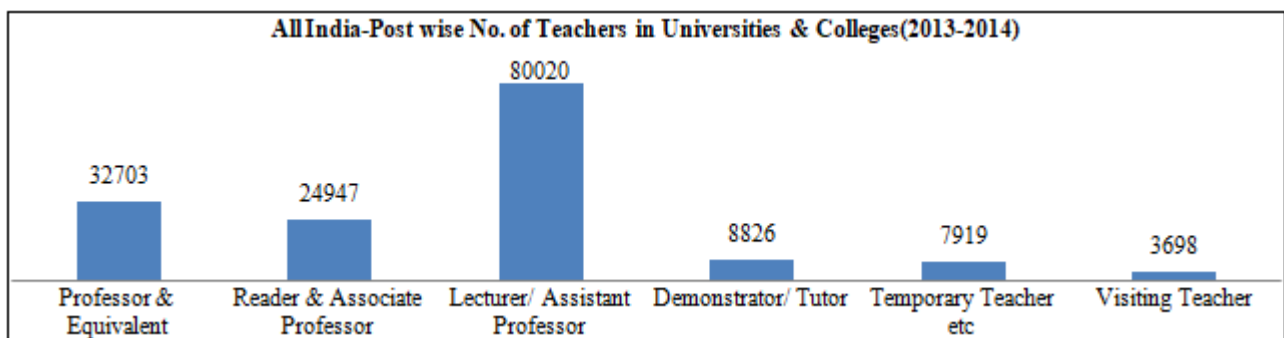


Figure 7: Postwise number of teachers appointed in institutions of Higher Education
Data Source: MHRD database

The Quality Degradation in Higher Education Institutions

The XIth and XIIth Five year Plans focused on the inclusiveness and accessibility of education; which led to mushrooming of institutions of higher education at a rampant pace. To keep up with the benchmark parameters

set by the accrediting bodies the institutions have looked for lanes and by-lanes to achieve the same. Though most of the institutions do not come close to the fulfillment of the parameters yet they continue to operate in the marginalized way thus discounting the standard of higher education. Some of the far flung institutions which are in the backward areas

are facing the exiguity of infrastructure and qualified instructors. While public institutions and public funding characterized the growth and expansion of higher education in its elite stage of development the massification of higher education in India has become a market mediated process facilitated mostly through private institutions and financed by the households. This is in contrast to the developments in the matured market economies where massification of higher education was facilitated mostly through public institutions.

The massification of higher education in India has posed challenges to expand the system with equity, to improve quality while expanding the system and managing the sector efficiently and effectively. In many instances, it is found that government interference is high; which hampers the autonomy of institutions of higher education. There is no synergy between the state and the central governments which leads to diverging instructions and orders to the institutions of higher education, making it difficult to augment. Though the massification movement has spread, but the government seems not prepared sufficiently to deal with amplification of its nittygritty of higher education which has spread at a great magnitude in these last 10 years. The ingathering of all this has been rethinking for the type of education we need to give the youth, the outcome is the skill development program, the RUSA program and like.

4. Incompetent and Unemployable Graduates

Recently the newspapers were sonorous with the news of 23 lakh people (including PhD holders) having applied for the post of peon in the Uttar Pradesh Government indicates the commiserable situation in higher education another similar case was found in the state of Madhya Pradesh. Interestingly, India produces 5 million odd graduates every year but the question is how many are employable. Another national daily reported the result of the National Employability Report of Aspiring group revealed that 16% and 14% were employable in the sales and customer services or operations job respectively. Over one third (36%) of the graduates are suitable for employment in clerical, secretarial jobs, the sector showing highest employability for graduates followed by IT enabled services and BPO. In IT services and IT operations only 13% and 16% are employable respectively. Just 2% are employable in corporate communication or content development. Only 3% are employable as analyst and a mere 2% in accounting. In teaching the employability has been just 15%. The disparity can be seen when it was found that employability in tier I cities was higher than compared to in the other cities. Massification of Higher education in India has led to a vicious cycle that is the low standard of the educational institutions leads to low quality of transfer of education to the next generation which leads to lower standards of competency. When the graduate is employed by the industry, the industry again trains and grooms as per their requirement, leading to heavy costs on training and development plus high cost of recruitment and selection. Therefore huge costs are laid on private and public which is duplication of costs.

V. Profit Maximization versus Knowledge Maximization

Education is seen as a product and it can be purchased like any other service and commodity. It is no more considered

as the human formation given by committed people who are mission oriented. Practice of ethics and good values is on a decline. Corruption has entered as an accepted practice in higher education. It may be due to privation of higher education and education is seen as moneymaking business by the government organization as well as by people out side. The growth of the private higher education system has led to many of them for profit or quasi profit making institutions and being demand absorbing institutions, offering access to students who might not be qualified for the curriculum thus serving as a mass clientele and customer oriented. It has led to recent showdown of huge VYAPAM scam reflecting the corrupt practices used in the entrance examinations and denying of admission of deserving students. Most of these private institutions are run on business model with power and authority concentrated in boards and chief executives and with faculty holding little or no authority or influence. Students are no longer consider pupil, but seen only as consumers. A skewed growth and steering away from the mainline objective is seen in the institutions of higher education.

2. Conclusion

Although India enrolls a larger number of students than the largest country (such as USA) which has universalized higher education. With around 28.5 million students, 0.7 million teachers and 35 thousand institution in 2011-2012 (MHRD, 2012a), the higher education sector in India is not only large but also the second largest in the world after China. Yet the system remains at the lower end of the massification because it needs to cater to this 50% of population which is below the age group of 25 years.

There is also seen causality effect on the growth rate of the nation with gross planned expenditure on higher education. Therefore, it becomes imperative for the governments not only central but state to allocate funds for the growth and betterment of the higher education institutions. The contagion effect of the improvement in the higher education leads to betterment in society, improvement in the technology and research and development of the nation. The effects of improvement in higher education are nations human development index improves, the purchasing power increases and finally the nation at large grows. University education has a general economic impact by equipping students with the ability to generate new ideas once they have completed their education and are active within the workforce. Companies benefit by hiring graduates with knowledge and research skills. University graduates help firms become more efficient and productive, and help them to introduce new products and processes. Research within universities produce breakthrough advances that can fundamentally alter our economic growth and quality of life through productivity impacts. Although not all research leads to such world-changing results, it does produce a steady stream of new ideas and technologies. These, in turn, lead to innovation and continuous improvements in productivity and growth of the nation. The social parameters of reduction in crime rates and value based living is seen. As Gandhiji rightly said "What is really needed to make democracy function is not knowledge of facts, but right education" and right education for the nation for overall

growth is that a greater number of people get the opportunity to receive higher education without liquidating the quality of education. The broad issues to be addressed include, inter alia, accessibility, quality, equity, affordability, inclusiveness, funding and regulation, which require a cohesive and integrated approach for solutions. The role of higher education as a public good continues to be fundamentally important and must be supported. In the rush for income and consumerism the very aspect of higher education is being neglected. Most of the universities are not having sufficient manpower and infrastructure to deal and address the situation of massification of higher education in India. India needs to rethink its growth in higher education in reference to the both quality and quantity.

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