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Demographic Dividend and Higher Education System in India : A Challenge and Opportunity

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Abstract

Youth can play a vital role in the formation of a country. The power of youth is believed to be one of the most important assets in the economic growth and prosperity of a country. This becomes even more significant when viewed in the context of a fast ageing population in the developed nations. By 2020 an average Indian expected to be only 29 years old against 37 years in China and U.S. 45 years in west Europe and 48 years in Japan. This is the Demographic dividend that we need to harness.

The present higher education system in India is fragmented, scattered and takes place in more than 37,000 institutions called affiliated colleges many of which are tiny and trace better than higher secondary schools. 89% of under graduate students and 72% of post graduate students are enrolled in those colleges besides 83% of faculty members.

Presently we are spending 3.8% of our GDP on education of which spending on higher education is 1.22% of GDP for the year 2010-2011. Individual monthly household expenditure on education is Rs.49.97 for the rural area and Rs.181.50 for urban area which constitutes 3.5% for rural and 7.5% for urban area of their total monthly expenditure. Tuition fee and private tutor accounts for their major portion of their spending on education while spending least on books, journals and library.

By 2020 the working age population in India is expected to grow by 47 million. But size alone is not sufficient the quality of human resource is an important aspect. Indian youth needs to be equipped with knowledge and skills to compete globally. The primary ambition of young Indians are to move from smaller villages to large town to become rich but the gap between the youth expectation and reality is too wide.

The present paper will focus on how we will bridge this gap and harness our youth to take advantage of this demographic dividend. The paper will also study whether our present higher education system and individual household expenditure on education is sufficient enough to meet this end?

Keywords: *Demographic Dividend, UGC (University Grant Commission), GDP (Gross Domestic Product), GER (Gross Enrolment Ratio), NSSO (National Sample Survey Organisation)*

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1. INTRODUCTION

Education is the most important element for the growth and prosperity of a nation. We are in the process of transforming itself into a developed nation by 2020. The power of youth is believed to be one of the most important assets for the economic growth and prosperity of a nation. This become even more significant when viewed in context of fast ageing population in developed nation. By 2020 an average India expected to be only 29 years old against 37 years in China and U.S. 45 years in west Europe and 48 years in Japan. This is the "Demographic dividend" that we need to harness. By 2020 the working age population in India is expected to grow by 47 million.

As per census 2011 the total youth (15-32) population of India is 430 million which is 35% of total urban population and 32% of total rural population and is expected to rise to 464 million by 2020 till it came down to 458 million by 2026. 74% youths are literate.

By the analysis of above mentioned figures we are comfortably placed to reap the benefits of the "Demographic dividend" for at least next 12 years. But as mentioned above size alone is not sufficient the quality of human resource we are producing is an important aspect. Indian youth needs to be equipped with knowledge and skill to compete globally, as we know "primary ambition" of youths is to migrate from smaller villages to larger towns/cities to become rich but gap between the expectation and reality is too wide and some would even say unbridgeable.

Building human capital is essential and having a young population is not enough until they have certain skills to contribute effectively to the economy. Education plays an important role to build up the human capital so that a skilled workforce is made available which can innovate and promote faster growth. Without proper policies, the increase in working age share may lead to rising unemployment and fuel economic and social risks.

2. REVIEW OF LITERATURE

Policymakers can use the demographic dividend to begin to shift resources toward broadening access to more advanced forms of education. As fertility rates fall, demand for primary education will drop and, over time, this effect will be repeated at the secondary level. However, demand for higher education will simultaneously be rising (at least for a period of time), as those leaving secondary education consider attempting to gain more advanced qualifications (Task Force on Higher Education and Society, 2000). A focus on education at all levels will prepare those in developing countries who have not yet reached working age for their future incorporation into the workforce. Practical, relevant curricula (taking into account the importance of changing technology) can give developing countries a better chance of catching up to some of the more advanced societies, many of whose education systems have problems of their own **(Bloom, D., D. Canning, and J. Seville. 2003)**.

An increase in the working age ratio can raise the rate of economic growth, and hence confer "demographic dividend." People of working age group are on an average more productive than those outside this age group. Also, because workers make saving while dependants do not, a bulge in the working age ratio contributes to higher savings rates, increasing the domestic resources available for productive investment. In addition, the fertility decline that is the source of the changed age structure may act directly to induce greater female labour supply **(Bailey (2006))** and increase attention to primary education and health **(Joshi and Schultz (2006))**.

The declining population growth rate and fertility rate in India has led to the reduction in the proportion of population below age 15 and increased the share of working age group (15-59) years). India could take the advantage of the "Demographic Dividend" resulting from this demographic transition where the large working age population could potentially bring economic growth **(Parasuraman 2009)**.

In order to reap the benefits of the demographic dividend, appropriate policies and institutions need to be in place. These policies have been identified as creating high skilled jobs, optimum health policies and enhancing the human capital, all of which are seriously lacking in the backward states. Unless immediate action is undertaken to improve the state of infrastructure and policies in these States, the Indian Demographic Dividend will be at serious risk of turning into a curse rather than a gift (**Vasundhra Thakur April 2012).**

India is currently experiencing a major demographic transition. Since the 1980s India has benefited from the changing age structure and growth of about 2 percent per annum can be attributed to the growing working age population **(Aiyar, S., A. Mody. (2011)**. There is an increasing recognition that beyond a population's overall size, its age structure is of great economic significance (**Williams and Higgins, 2001; Bloom, Canning and Sevilla, 2003).**

3. OBJECTIVES OF THE STUDY

a. Whether India has an advantage of "Demographic Dividend" and its youths are sufficiently harness to reap this advantage?
b. Critically analyse the growth and status of higher education sector in India and identify its major concerns.
c. Critically analyse the present level of expenditure on education.
d. Whether growth and expenditure in education sector is sufficient enough to harness our youth to take the advantage of "Demographic Dividend"?

4. HIGHER EDUCATION SYSTEM IN INDIA

At the dawn of the political independency in 1947, India was a country having 18 universities, 500 colleges, nearly 2,30,000/- students less than 24,000/- teachers and a budget of 55 crore rupees in the field of higher education. By 2013 the figure rose to 628/37,204/215.01 lakhs/9.51 lakhs and more than one lakh crore budget respectively. This indeed a remarkable growth in terms of numbers, there has been a qualitative refinement as well.

Table 1.1: 2012-13

Total No. of Degree awarding institutions/universities (2012-13)	628
Total no. of colleges	37,204
Total no. of students enrolled	215.01 lakh
Students enrolled at P.G. level	26.11 lakh
Students enrolled at U.G. level	184.69 lakh
Student's enrolment for research (Ph.D.etc.)	1.80 lakh
Students enrolment for Diploma/Certificate etc.	2.39 lakh
Total teaching/Faculty members	9.51 lakh

Sources: Annual Report 2012-13 University Grant Commission (UGC)

Table 1.2: Number and Distribution of Teaching staff by Designation in university Departments/ university colleges and affiliated colleges 2012-13

	Professor (% of Grand Total)	Reader/ Asso.Professor/ Lecturer (S.G) (% of Grand Total)	Lecturer (S.Scale) (% of Grand Total)	Assistant Professor/ Lecturer (% of Grand Total)	Tutor/ Demonstrators (% of Grand Total)	Total (% of Grand Total)
University	28587 (17.22)	39251 (23.65)	18348 (11.06)	72348 (43.59)	7430 (4.48)	165964 (17.43)
College	56667 (7.21)	177733 (22.62)	91386 (11.63)	441070 (56.12)	19019 (2.42)	785875 (82.56)
Grand Total	85254 (8.95)	216984 (22.79)	109734 (11.52)	513418 (53.93)	26449 (2.77)	951839 (100)

Sources: Annual Report 2012-13University Grant Commission (UGC)

Table 1.3: Level wise enrolment of students: university Teaching Departments/University colleges/Affiliated colleges 2012-13

S.No.	Level	University Level/University Colleges	Affiliated Colleges	Total (% of Grand Total)	% in Affiliated Colleges
1.	Graduate	1939170	16530509	18469679 (85.90)	89.50
2.	Post Graduate	722023	1889643	2611666 (12.15)	72.35
3.	Research	139079	41495	180574 (0.84)	22.98
4.	Diploma/Certificate	143724	95511	239235 (1.11)	39.92
Grand Total		2943996	18557158	21501154 (100)	86.31

Sources: Annual Report 2012-13 University Grant Commission (UGC)

Table 1.4: Degree awarding universities/ university level institutions 2012-2013

State Universities	300	48%
Central Universities	44	7%
Private Universities	151	24%
Institutes established through state legislation	04	0.63%
Deemed universities	129	20.54%
Total	628	100%
Colleges	37,204	

Sources: Annual Report 2012-13 University Grant Commission (UGC)

As we analysed **Table 1.1, 1.2, 1.3 and 1.4,** in India at present there are 628 universities level institutions (including 44 central universities, 300 state universities, 151 private universities and 129 deemed universities). There are more than 37,000 colleges. The total number of students enrolled in the formal system of education in universities and colleges have been around 215.01 lakh of which 26.11 lakh enrolled at P.G. level which accounts for 12.15% of total students enrolled, 1.84 crore enrolled at UG level which accounts for 85.90% of total students enrolled, 1.80 lakh enrolled for Research which accounts for 0.84% of total students enrolled, 2.39 lakh enrolled for diploma/certificate which accounts for 1.11% of total students enrolled in the higher education. The total number of faculty members is 9.51 lakh.

Table 1.5: Growth of Higher Education in Universities/Colleges/Student Enrolment/Teaching Staff

	1950-51	2012-13	Fold increase
University (In Tens)	3	62.8	20.9
Teaching staff in universities & colleges (In Lakhs)	0.24	9.51	39.62
Enrolment of students (In Lakhs)	3.97	215.01	54.15
Total No. of colleges (In Thousands)	0.7	37.20	53.14

Sources: MHRD for 1950-51 and UGC for 2012-13

As we analysed **Table 1.5** in the year 2012-13 there are 628 university level institutions as compared to 30 in the year 1950-51 20.9 times increase. Total number of teaching staff in university and colleges was nearly 24,000/ in the year 1950-51 which has increased to 9.51 lakh in the year 2012-13 shows a 39.62 times increase. Enrolment of students was 3.97 lakh in the year 1950-51 which has increased to 215.01 lakh in the year 2012-13 a 54.15 times increase. Respectively the figure for colleges was 700 in the year 1950-51 which increases to 37.20 thousand by the year 2012-13 shows a 53.14 times increase. All these data's shows a remarkable growth in terms of numbers.

Gross Enrolment Ratio:

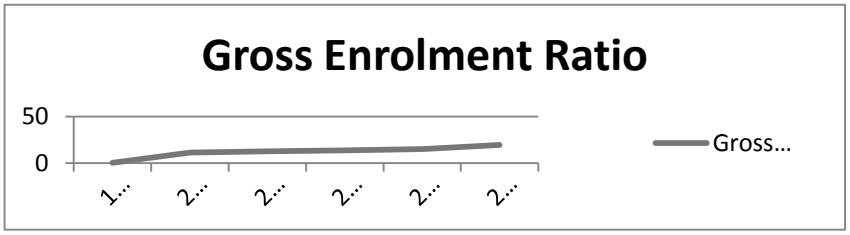
Table 1.6: Gross Enrolment Ratio

Year	Gross Enrolment Ratio
1950-51	0.40
2006-07	11.53
2007-08	12.74
2008-09	13.78
2011-12	15
2012-13	19.4

Sources: university grant commission Higher Education at a Glance June 2013 and RUSA 2013

During 2012-13 GER in India is 19.4% as compared to 0.40% during 1950-51. From 2006-07 GER shows a considerable increase from 11.53% to 19.4% but when we compare it with developed

nations like U.S. and Russia it is very low where it is 89% and 76% respectively. The gross enrolment ratio in U.K. is 49%, in Malaysia it is 40% and 24% in China.



Need for New Paradigms and Perspective in Higher Education System in India

The present higher education system in India is fragmented, scattered and takes place in more than 37,000/ institutions called affiliated colleges, many of which are tiny and trace better than higher secondary schools. Most of these colleges have a faculty strength of less than 50 and number of faculty members with Doctorial qualification is very low or none in many cases. These institutions performed learning through class room teaching and preparing the students for examination like tutorial colleges. These institutions do not have infrastructure. The affiliated system which dominates the Indian scene has long been given up in the countries of its origin. Unfortunately, the entire higher education in India takes place in the ill-equipped, under-staffed affiliated colleges as can be seen from the fact that 89% of under graduate and 72% of post graduate students and 83% of faculty members are in the affiliated colleges.

In the developed countries universities and university level institutions constitutes the strong centre of research. Universities alone have a continuous flow of young and fresh minds and an atmosphere highly conducive to talent and creative efforts. Unfortunately, the share of higher education in research in India is pitiably low. Only 0.84% of the total number of students enrolled in higher education got enrolment in the field of research. The infrastructure and other facilities are not fair enough in the universities and affiliated colleges, which supports the students and faculty members in their research.

Presently gross enrolment ratio in higher education in India is 19.4% as compare to U.S. and Russia where it is 89% and 76% respectively. The gross enrolment ratio in U.K. is 49%, in Malaysia it is 40% and 24% in China.

4. EXPENDITURE ON EDUCATION

Table 1.7: Expenditure on higher education in India (As Percentage of GDP)

Year	Total Expenditure on Higher Education (As % of GDP)	Total Expenditure on Education (As % of GDP)
2006-07	1.14	3.64
2007-08	1.09	3.40
2008-09	1.18	3.56
2009-10	1.29	3.98
2010-11	1.22	3.8

Sources: Analysis of budgeted expenditure on education, MHRD

Table 1.8: Educational Expenditure as % of Public Expenditure & GDP

Year	Public Expenditure on Education	GDP
1950-51	7.92	0.64
1960-61	11.99	1.48
1970-71	10.16	2.11
1980-81	10.67	2.98
1990-91	13.37	3.84
2000-01	14.42	4.28
2010-11	-	3.80

Sources: Analysis of budgeted expenditure on education, MHRD

As we analysis **Table 1.7 and 1.8** the total expenditure on education was 0.64% of GDP in the year 1950-51 which has increased to 3.80% of GDP in the year 2010-11. Public expenditure on education was 7.92% in the year 1950-51 which has increased to 14.42% in the year 2000-01.

Table 1.9: Individual Monthly Household Expenditure on Education in Rs

Year	Rural	Urban	Rural As% of Expenditure on education	Urban As% of Expenditure on education
2005-06 62nd Round	16.98	72.85	2.72	6.22
2006-07 63rd Round	22.16	91.60	3.19	6.98
2007-08 64th Round	28	105	3.70	7.1
2009-10 66th Round	37.79	160.57	3.59	8.09
2011-12 68th Round	49.97	181.50	3.5	7.5

Sources: NSSO Report No. 523,527,530, 541 and 558 on Household consumption of various goods and services in India

According to the trends revealed by **NSSO (National sample survey organisation, government of India)** see **Table 1.9.** Indian household spends meagre 2.72% in rural area and 6.22% in urban area of their total spending on education which mounts to Rs.16.98 in rural area and Rs.72.85 in urban area per month during the period 2005-06. The amount rose to Rs.49.97 in rural area and Rs.181.50 in urban area per month during the period 2011-12. Although the trends revealed that individual expenditure on education has increased but the total spending is very low. There is more increase in %wise spending on education in rural areas from 2.72 to 3.5 in comparison of urban areas where the increase is from 6.22% to 7.5% for the same period still the spending in rural areas lags far behind in comparison of urban areas.

Table 1.10: Monthly Household Expenditure on Different Components of Education

Components of education	Rural		Urban	
	2009-10 (66th Round)	2011-12 (68th Round)	2009-10 (66th Round)	2011-12 (68th Round)
Books and Journals First Hand	5.56	7.62	13.97	17.13
Books and Journals second Hand	0.31	0.33	0.53	0.64
Newspaper and Periodicals	1.01	1.21	6.45	6.85
Library Charges	0.04	0.07	0.18	0.22
Stationary and Photocopy charges	4.70	5.98	8.48	10.08
Tuition Fees and other Charges (School, Colleges etc.)	21.48	28.06	106.81	121.62
Private tutor/Coaching Centre	3.48	6.00	20.28	23.17
Educational CD	0.02	0.01	0.14	0.03
Others	1.18	0.70	3.67	1.74
Total	37.79	49.97	160.51	181.50

Sources: NSSO Report No. 541 and 558 on Household consumption of various goods and services in India

According to the **66th and 68th round of NSSO** survey conducted in the year 2009-10 and 2011-12 respectively, the individual spending on education is Rs.37.79 and Rs.49.97 for the rural area and Rs.160.51 and Rs.181.50 for urban area. The spending on different components shows that tuition fees and private tutor accounts for their major portion of their spending on education. Expenditure on books and journals accounts for only Rs.5.87 and 7.95 for rural area and Rs.14.50 and 17.77 for urban area. The expenditure on library stood at 4 and 7 paisa for rural area and 18 and 22 paisa for urban area.

5. FORMULATING A STRATEGY TO HARNESS EDUCATED YOUTH

5.1 Restructuring and strengthening our higher education system in India: As it is mentioned earlier we are in the process of transforming itself into a developed nation by 2020 and we have a "Demographic Dividend" of over 440 million literate youth by 2020 which can help us in transforming us into a developed nation. As we know the quantity alone is not sufficient but it is the quality of youth which we produce matters in achieving this target.

First of all, we have to reconstitute our higher education system. The out-dated affiliation system is a curse on our higher education system. As we know about 89% of our undergraduate and 72% of post graduate students are enrolled in these institutions. Quality of education provided in those institutions is very low, they are running like a coaching centre and teachers are mere tutors. The accreditation of most of these institutions has not been done and if accredited it is very low. Steps must be taken to liberalise the higher education system. Autonomy must be granted to

as many deserving colleges. All these colleges must have their own autonomous board of examination. We have to bring major examination reforms by continuous internal evaluation of the students and well defined academic auditing.

The real weakness of the higher education system is in the structure itself. Higher education system should be especially at the P.G. courses and above must be in the universities. We must set a target of more than 100 world class university level institutions by 2020 in which we can taught our students so that they can compete globally.

We need more than 1000 universities and 45,000/ colleges to achieve the target of 30% of gross enrolment ratio in higher education by 2020. Governments alone do not have resources and specialization to achieve this target. We need an infrastructure which should fullfill the demand of the economy. There is a need to realize the accountability of private sector institutions. There is a need for global partnership in the field of higher education to set up world class universities and university level institutions.

All the universities and educational institutions must have a good infrastructure which supports a good academic and teaching environment. These institutions must have good library equipped with internet and books from all over the world which can help the students and faculty members in their research.

The large number of posts both teaching and non-teaching staff are lying vacant for several years in various institutions. We have to bring major changes in our selection process of the faculty members which should be more transparent and effective so that more and more vacancies can be field by talented faculty members.

The present higher education system especially at graduate level has very low employment and skill development of students. We should have developed more and more institutions which offer's more skill development courses resulting in more generation of employment to the youth.

Presently, we are not focused on research in the field of higher education; only 0.84% of our students are enrolled in the field of research.

5.2 Increase the expenditure on education: The expenditure on education sector especially in higher education has remained very low over the years only a little over 1% of GDP. The national education policy 1968 and 1986 revised in 1992 recommended government expenditure on education at 6% of GDP while the expenditure was only 3.8% during 2010-11. If we really want to take the advantage of the "Demographic Dividend" we should have raised our expenditure on education to at least 6% of GDP and 3% on our higher education.

In order to achieve the target of GER of 30% by 2020 requires massive efforts in terms of strengthening and creating the infrastructure, human resource and other required inputs. While expenditure on education, government as well as public has to go up the role of private sector would also be critical to achieve the stated target.

The monthly house hold expenditure on education is Rs 49.97 for rural area and Rs. 181.50 for Urban Area during the period 2011-12 which accounts for 3.5% and 7.5% respectively of their total spending on education. We should rise our spending on education to at least 15% of our expenditure on education.

A strong culture of reading is a pre requisite for any society that expected to compete in a global environment. Television, internet and other modes of communication have the expectation of the

youth but unless the gap between the aspirations and abilities is adequately addressed, it could run into a problem rather than a curse, so do not waste the opportunity.

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