



ROLE OF EDUCATION & EMPLOYMENT IN INDIA'S DEMOGRAPHIC DIVIDEND

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Abstract:

Demographic dividend is an accelerated economic growth that a nation witnesses due to change in age-structure and decline in fertility rate, provided right kind of policies are formulated and implemented. This dividend is nothing but education dividend. Using various surveys and NSS reports the paper tries to draw inferences on role of education in capitalizing the demographic dividend of the nation. These studies indicate that the elementary level education system fails to impart the requisite skills that are necessary for students to perform well in their jobs. Enhancing the capabilities of youth and making them employable in a changing economy must be a prioritized upon and this can only happen if the education system at primary level is structured. India also needs digital infrastructure along with physical infrastructure, Micro entrepreneurs, Skilling eco-system and Updated labour norms to reap the benefits of demographic dividend. Labour intensive light manufacturing sector, digital services, new areas in education, health and tourism can help in generating jobs and help us create 12-15 million jobs every year.

Keywords: Demographic dividend, Economic growth, Education, Age structure, Education dividend.

Introduction

India's educational heritage has been very rich. The norms of simple living and high thinking followed by ethics and morality played an important role in shaping human personalities. Such trained youth used to be highly productive in nature. Currently the situation of the education system has not been up to the mark. According to the PwC 2014 Report the education sector will have to deliver high-quality, formal education to 7m additional children every year over the next two decades. With current education investments estimated at just 3% of India's GDP, achieving this target won't be easy using traditional strategies. The benefit of demographic dividend can only be reaped if we invest in human capital and that is not possible without an effective education system.

India needs to adapt itself to the changing economic growth and development paradigms and only achieving a growth of 8% is not sufficient. Growth should be followed by job creation and shifting demographics can be helpful only when supported with strong model of job growth. In the emerging model of growth domestic consumption is going to play a key role since we cannot rely on the formula of export-led manufacturing growth alone. India needs digital infrastructure along with physical infrastructure, Micro entrepreneurs, Skilling eco-system and Updated labour norms to reap the benefits of demographic dividend. Labour intensive light manufacturing sector, digital services, new areas in education, health and tourism can help in generating jobs and help us create 12-15 million jobs every year.

Literature Review

The **Population Reference Bureau** defines Demographic Dividend as follows:

"The demographic dividend is the accelerated economic growth that may result from decline in a country's mortality and fertility and the subsequent change in the age structure of the population. With fewer births each year, a country's young dependent population grows smaller in relation to working-age population. With fewer people to support, a country has a window of opportunity for rapid economic growth if the right social and economic policies are developed and investments made."

Relationship between Demographic Dividend and Education Dividend

Education has direct impact on economic growth. Its contribution in generating skills can contribute to higher labour productivity and faster adoption of new technologies.

According to the Mankiw(1992) model there are direct effects of educational attainment on labour productivity. It incorporates the element of human capital to the production process which positively influences the economic growth. Solow model(1956) failed to incorporate this human capital element. Mankiw (1992) further shows that this human capital can explain the income differences across countries which is better explained than Solow model.

Education plays an important role in improving the health and quality of governance. Importantly, female education is one of the key factors in inducing fertility decline and hence in driving the declining young-age dependency ratio, which is the key factor in the demographic dividend argument. Lutz,W., Crespo Cuaresma, J., & Sanderson,W. C. (2014). Female education

increases the opportunity cost of child rearing as women work outside and this reduces the fertility rate.

Lutz et al. (2008) extended the demographic dividend model in two ways. It distinguished two mechanisms for human capital to influence economic growth: Firstly through the direct effect of the productivity of workers and Secondly indirectly through its effect on the rate of total factor productivity growth. It also used the new IIASAVID education database (Lutz et al. 2007) to disaggregate education effects by both age and level of educational attainment. Using data for 101 countries over six 5-year periods from 1970– 2000, it was found that the direct productivity effect is particularly strong for older workers with secondary education, while younger workers with tertiary education have the greatest effect on the speed of total factor productivity growth.

Recent studies have also shown that age-specific educational attainment via the improvements in education is a key driver of economic growth.

Returns on Education

Trends in investment in education in developing countries have been receiving serious attention of educational planners around the world recently as educational budgets were significantly affected by the world economic crisis, manifested in the form of the energy crisis (Coombs 1985).

If we investigate the question: why and how does overcrowded, resource-poor East Asia succeed? (Tang and Worley 1988; Berger and Hsiao 1988). The role of education cannot be underestimated in this "Asian miracle". The East Asian economies invested massively in education since "the human investment revolution in economic thought" in 1960 (Schultz 1961). Public expenditure on education increased remarkably during 1965-85 in all countries of the region. After adjusting for increase in prices, public expenditure on education increased by 13 times in Korea, and by more than six times in Hong Kong, Thailand, and China. (Tilak 1993)

The lessons we can learn from East Asian Countries is that education can be a dividend through public development policies. Emphasis should be laid upon universal primary education and government should efficiently finance its resources to subsidize higher education.

The Private Sector in Education

Growing constraints on public resources for education have led many to argue in favour of privatization of education, even though the proponents themselves were aware that private education may "turn out to be socially and economically divisive in the future" (Psacharopoulos and Woodhall 1985, p. 144) Hence India cannot rely completely on privatization of higher education that has often resulted in deteriorating educational standards.

Relationship between Demographic Dividend and Employment

The local challenge to Growth with jobs

According to BCG Report Growth over the last two decades has been driven by capital investment rather than labour addition. This has resulted in increase in the amount of capital available per worker or capital deepening, leading to increase in labour productivity rather than increase in jobs.

The following observations were made by analyzing the GDP growth between the period 1991 to 2014.

- ✓ Total factor productivity has had a fluctuating contribution to GDP growth, rising and falling during this period.
- ✓ Capital addition has been the backbone of growth, consistently contributing to GDP growth.
- ✓ Labour contribution to growth has been low to negligible over this period.

Objectives

- To examine the role of education in capitalizing India's Demographic Dividend.
- To comprehend the linkage between Employment and Demographic Dividend.

Research Methodology

Using various surveys and NSS reports the paper tries to draw inferences on role of education in capitalizing the demographic dividend of the nation. The article analyses this through various reports like ASER 2014 report {The Annual Status of Education Report (ASER) conducted by an NGO named Pratham}, Indian Labour Report and surveys including National Achievement Survey (NAS) conducted by National Council of Educational Research and Training (NCERT) 2009 PISA (Programme for International Student Assessment) survey for OECD countries, 2006 Educational Initiatives survey.

Percentage of Literate by Age

Year	Age-Group	5-9	10-14	15-19	20-24	25-34	All ages	15 & Above
1971	Person	23.1	49.6	51.3	44.7	34.8	29.4	47.7
1981		30.3	56.4	55.4	52.0	45.1	36.2	40.8
1991		56.9	68.8	65.8	57.8	50.8	42.8	48.2
2001		71.0	81.7	79.3	73.2	64.5	54.5	61.0
2011		82.2	91.1	88.8	83.2	75.3	63.1	69.3

Source : Register General of India

The table shows that there has been an increase in literacy rate over the years taking account of different age-structures. This shows that working age share (15-59) has been experiencing increase from 61% in 2001 to 69.3% in 2011 whereas the youth age-structure (15-34) has also experienced an increase in percentage of literates over different years. But the quality of education is still not upto the requisite standards . Inorder to review the quality of education different survey reports are taken into account.

Review of the education quality

As per the ASER 2014 report {The Annual Status of Education Report (ASER) conducted by an NGO named Pratham} the "reading levels" of children in primary and upper primary levels are significantly low. Only 25% of children in Std. III could read a Std. II text fluently. For Std. V and Std. VIII this number is 50% and 75% respectively. Which means even at Std. VIII there are about 25% students who could not read a Std. II text fluently? In mathematics about 20% of the Std. II students could not recognize numbers up to 9. Only 25.3% students in Std. III could do a two digit subtraction and only 26.1% of Std. V students could do division. Similar trend is observed in English reading capabilities. Only about 25% of Std. V students could read simple English sentences. This figure is 46.8% for Std. VIII.

[Pratham, "Annual Status of Education Report (Rural) 2014 - Provisional," Pratham, 2014]

National Achievement Survey (NAS) conducted by National Council of Educational Research and Training (NCERT) 2012 Report finds that a Std. V student demonstrated only basic levels of reading competencies. Only about 60% of students could solve simple problems of basic operations and measurement and could find out the multiplier of a given number. Barely one third of students could compute the difference between two decimal numbers and only 22% students could do word problems based on memory.

The 2006 Educational Initiatives survey revealed that the learning levels of students in the top English medium schools in the metropolitan cities were far below the international average.

These studies indicate that the elementary level education system fails to impart the requisite skills that are necessary for students to perform well in their jobs. Hence the higher education also suffers and that raises serious questions on employability of Indian students. Ability to tackle different problems and acquiring the skill-sets necessary for the absorption in labour market becomes the need of the hour. But there is sufficient time and potential for the nation to act upon and improve our education system.

Education level specific usual status worker population ratio of persons of age 15 years and above during the NSS 61st (2004-05), 66th (2009-10) and 68th (2011-12)

Rural						
Level of general education	Male			Female		
	All workers 2004-05	All workers 2009-10	All workers 2011-12	All workers 2004-05	All workers 2009-10	All workers 2011-12
Not literate	892	874	880	550	432	418
Literate & upto primary	895	900	892	449	384	361
Middle	802	784	770	371	294	276
Secondary	732	697	668	305	222	222
Higher Secondary	709	634	618	252	183	176
Diploma/Certificate	821	730	748	523	339	408
Graduate & Above	851	793	781	345	297	297
All	851	793	781	345	297	297
Urban						
Level of general education	Male			Female		
	All workers 2004-05	All workers 2009-10	All workers 2011-12	All workers 2004-05	All workers 2009-10	All workers 2011-12
Not literate	831	816	832	304	231	240
Literate & upto primary	855	844	847	234	206	223
Middle	760	760	765	161	154	158
Secondary	673	667	651	123	97	110
Higher Secondary	608	576	583	129	94	108
Diploma/Certificate	798	730	691	486	393	344
Graduate & Above	795	788	790	290	259	279
All	763	740	741	227	183	195

Source: NSS Report No- 554 Employment & Unemployment Situation in India 2011-12

The table shows that worker population ratio of persons in the working age share (15 years and above) has declined in rural areas at all levels from 2004-05 to 2011-12 among men and women. Similarly the worker population ratio of persons in the working age share has undergone a steep

decline in urban areas from 2004-05 to 2011-12 among women in urban areas. It shows that higher education is not contributing to the employability capabilities of the youth and reducing their participation in labour force in organized sector. Even among diploma holders and graduates there is presence of rise in unemployment among the youth due to lack of desired skills.

Per 1000 Distribution for Persons of Aged 15 Years and Above by Main Activity and Educational Classification (2015-2016)								
Educational Classification	Employed			Unemployed				
	Social Group	Male	Female	Transgender	Persons	Male	Female	Transgender
Not Literate	802	287	374	463	9	10	-	9
Below Primary	869	245	351	519	12	7	-	9
Primary	861	234	512	547	17	10	-	13
Middle	777	195	485	518	19	13	18	16
Secondary	627	147	405	428	22	14	34	19
Higher Secondary	572	117	619	392	34	27	23	31
Certificate course at Undergraduate level	590	230	95	464	59	61	-	59
Diploma/Certificate	633	231	1000	515	65	60	-	64
Graduate	688	207	432	516	95	109	84	100
Post Graduate and Above	738	360	392	592	83	122	71	98
Overall	721	217	459	478	30	21	21	25

Source: Ministry of Labour & Employment, Govt. of India.

The table shows that there has been rise in unemployed female workforce among graduates as well as post graduates in 2015-16. This again establishes the fact that female labour force participation has dropped even after higher education. But the certificate course at Undergraduate level and diploma courses have equally contributed to the employed workforce relative to Graduate and Post graduate courses. Hence the government should focus on developing such courses that are skill oriented and that lead to direct addition in the workforce. The male population has dominated in almost all educational classification which shows that there is enough potential for females to get productively employed and that is where the real dividend is.

Enhancing the capabilities of youth and making them employable in a changing economy must be a prioritized upon and this can only happen if the education system at primary level is structured. The Indian Labour Report rightly states: "Youth unemployability is a bigger crisis than unemployment, as poor quality of skills show up in low incomes rather than unemployment."

Hence the policies of the government and their implementation at grass root level would play an important role in shaping India's demographic dividend.

Policy Implications

There are some measures which have to be adopted in-order to fix the persisting crisis of learning and education.

Rote learning

Education system has an inbuilt weakness that promotes the rote-learning practice and make students incapable of adapting themselves to the current job requirements. This also makes students lose interest in studies and increases drop-outs.

Poor Quality of Teachers

Many teachers in primary and secondary education are not trained adequately as per the required standards and lack conceptual clarity and right knowledge of subjects. This deteriorates the quality of education.

Updated Curriculum

The course structure does not impart the skills necessary for students to perform and get the right jobs. The curriculum has also not been updated as per the present needs to enhance the work force participation at the right time.

According to the draft on National Policy for Skill development and entrepreneurship certain policy measures can be taken to improve the education system in India

Emphasis on Primary education

The primary teacher's quality and training should be monitored and incentives should be provided to them at grass root level. The education system should pay more attention to practical aspects and employability rather than rote-learning. This can only be possible if government takes initiative to re-design the curriculum, such that students find it easy to grasp and they simultaneously develop skills that would make them self-dependent.

Streamline Entrepreneurship in Education System

Entrepreneurship through Start-Up India has been eventually focused upon at all levels including the primary, secondary, vocational education, and higher education. With the help of ICT enabled mechanism/ distance learning, mode many students who were deprived of education can be addressed and through entrepreneurship programmes they can made self-dependent.

Women in Entrepreneurship

The low female economic participation has been a hindrance to the growth process. If India can capitalize the potential women have towards GDP contribution which can go upto 4 % than the pace of growth of economic would get strengthened.

Education and Training Systems

The governance and funding of the vocational training institutes should be taken into account. The vocational training should be comprehensive enough to provide the required skills in the labour market.

Conclusion

India is going to enjoy the benefit of demographic dividend roughly after 2025 (Population Reference Bureau, 2007). The employment figures reflect that Indian Youth lacks the employability skills apart from poor health and quality education of the working population. The quality of working age share can be improved through emphasis on human capital development and that is only possible if government invests in health and education in required amounts.

India also needs Digital infrastructure along with Physical infrastructure, Micro entrepreneurs, Skilling eco-system and Updated labour norms to reap the benefits of demographic dividend. Labour intensive light manufacturing sector, digital services, new areas in education, health and

tourism can help in generating jobs and help us create 12-15 million jobs every year. This investment in human capital should start with investment in primary education and employability skills. It is only then that the education dividend can be used to capitalize the demographic dividend of the nation.

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