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Human Capital Growth in India

Economics

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ABSTRACT

Human capital contributes to performance, productivity and economic growth. The stock of human capital consists of human, social and organizational aspects. Economic growth closely depends on synergies between new technological knowledge and human capital. The success of an economy depends, in a large part, on the people with higher level of competence. investment in education and health are considered as human capital development. An analysis of structure and growth of human capital in India is indicative of the fact that over a period of time the input, processes and output related parameters of human capital have improved over time. Much of this improvement has been during the new policy regime. This improvement is not inconsonance with the new policy regime requirements; still it is far from satisfactory level. Thorough restructuring of education and health related systems and sub-systems are need of the time.

KEYWORDS

Human capital , Education and Health

Introduction

Human capital contributes to performance, productivity and economic growth. The stock of human capital consists of human, social and organizational aspects. Economic growth closely depends on synergies between new technological knowledge and human capital. The success of an economy depends, in a large part, on the people with higher level of competence. Human capital theory suggests that individuals and society derive economic benefits from investments in people. Education has consistently emerged as the prime human capital but Becker (1993) and Schultz (1997) have argued that health and nutritional expenditure is also a part of human capital investment. This is because education is perceived to contribute to health and nutritional improvements. Education, health, nutrition, water and sanitation complement each other, with investments in any one contributing to better outcomes in the others (World Bank, 2001b). In models of economic growth, human capital in the form of schooling or enrollment has been given a central place while the role of health has remained peripheral. Health may have been left in the periphery because neither health related data covering a long horizon nor the historical framework to study them was within the purview of mainstream macro-growth economics. Thus, investment in education and health are considered as human capital development. So, human capital may be viewed as the sum of the investments in education and health.

Review of Literature

Human capital is only one factor in accounting for differences in growth rates across countries Appleton and Teal (1998). According to Fernandez and Mauro (2000), in spite of past improvements, however the average educational attainment of the Spanish labor force is still below the European Union. Philipson and Soares (2001) study stress that in the standard OLG setting, longevity induced augmentation of labor has positive effects on economic growth as well as factor prices increase in longevity or health induce larger investments in human capital and, thus, increased labor productivity. Jimenez et al. (2012) Study relies on such indicators as enrollment rates and years of schooling to measure the quantity of education and international assessments to measure quality. It has argued that a good education system is fundamental to equip workers with the right skills because an educated population earns more, and education provides people with the cushion and the life skills to avoid falling back into poverty. The tertiary education as a measure of the quality of human capital is an determinant of the economic output and it's dynamic. Investments in factors leading to the raise of life expectancy are beneficial for economic growth. Neagu (2014).

Measurement of human capital

For measuring human capital education and health based approach has been used. Access to education for today's children and youth, the future workforce, is captured using enrolment rates for primary and secondary school, as well as through tertiary enrolment. Education gender gap which measures the gap between females' and males' access to the three selected stages of education, is included in this pillar as an indicator of educational inclusion. Literacy rate, number of teachers enrolled and teacher-pupil ratio helps to measure general education status and its quality.

The Health and Wellness pillar captures how various socio– cultural, geographical, environmental and physiological health factors impact human capital development. A fundamental determinant of human capital is the survival of its population. In the crudest terms, longer lives equal more productive years per capita, but are also a strong indicator of the overall health and living conditions of a population. This sub–pillar includes a simple measure of life expectancy across the population, infant mortality and total fertility rate.

Growth rate has been calculated from the data obtained from census of India, educational statistics, SRS, registrar general.

Growth Profile of Human Capital

Literacy is foundation of human capital. India's high GDP growth is not matched with literacy growth; it has lagged behind. This implies, the high growth rate in the absence of high literacy rate growth is not sustainable. Average annual growth of literacy rate is given in table 1. On studying growth of literacy rate all over India it has been found that it remains far from list of priorities. During 1951/61 growth of literacy was 4.46 percent which decelerated and was 1.82 percent in 1981/91. Showing a little increase of one percent in 1991/2001 it again falls to 1.34 percent in 2001/11. *Literacy level in uneven in males and females however growth is more in case of female than males but still both are decelerating*. During 1951/61 growth of literacy in males was 4.04 percent which decelerated and was 0.87 percent in 2001/11. Female literacy growth was 5.64 percent in 1951/61 which decline to 2.01 percent in 2001/11, though in 1991/2001 little increase of 1 percent was found. *It may be seen that literacy tempo has not gain desired momentum.*

Table1: Average Annual Growth of Literacy Rate (in percent) in India

Year	Persons	Males	Females
1951/61	4.46	4.04	5.64
1961/71	2.00	1.31	3.63
1971/81	2.37	2.06	3.08
1981/91	1.82	1.29	2.81
1991/2001	2.19	1.62	3.17
2001/11	1.34	0.87	2.01

Source: Calculated from Census of India

The pupil teacher ratio growth in India at different levels (table 2) in upper primary 4.06 percent followed by primary 3.75 percent, senior secondary 1.59 percent during the period 1950-51 to 1960-61. Growth in primary is zero or negative in most of the sub-periods under study except 1980-81 to 1990-91 (1.13 percent), 2002-03 to 2003-04 (3.51 percent), 1.11 percent during 2003-04 to 2004-05 and 3.35 during 2006-07 to 2007-08. Upper primary growth rate except first period

never jumped 1.50 percent. Secondary sector growth rate is disappointing with most of the sub-periods; with zero growth rates. *The pupil teacher ratio growth in India at different levels is very dismal.*

Table 2: Average Annual Growth of Pupil-Teacher Ratio (in percent)

Year / Level	Primary	Upper Primary	Secondary / Senior Secondary
1950-51/60-61	3.75	4.06	1.59
1960-61/70-71	0.73	0.29	0.00
1970-71/80-81	-0.24	0.28	0.70
1980-81/90-91	1.13	1.05	1.26
1990-91/2000-01	0.00	0.24	0.29
2000-01/01-02	0.00	-5.40	3.08
2001-02/02-03	-1.17	0.00	-1.48
2002-03/03-04	3.51	1.46	0.00
2003-04/04-05	1.11	0.00	0.00
2004-05/05-06	0.00	-1.43	0.00
2005-06/06-07	-2.19	0.00	0.00
2006-07/07-08	3.35	1.46	2.99
2007-08/08-09	-3.24	-1.43	0.00
2008-09/09-10	-2.29	0.00	-1.44

Source: Calculated from Educational Statistics

Dropping out is one of the critical issues, plaguing the education system of our economy. Growth rate in dropouts at different level is negative but still its number is increasing. During the period 2008-09 to 2009-10, in primary section, the growth in dropouts is very high; it is 7.73 percent, 6.53 percent for boys and 9.19 percent for girls. Upper primary growth during the same period is 0.12 percent and senior secondary is -2.81 percent. Studies have shown that *among the reasons for dropping out, financial constraints has been the most common reason. For the rural females and rural males, the major reason is affordability followed by 'child not interested in studies.' Another reason for rural female to discontinue is that their parents are not interested in their studies. Among urban females reason is that they had already completed their desired level of education. Urban males and urban females who had ever been enrolled but were not currently attending dropped out because they were not interested in studies.*

In table 3, it is clear that growth of expectation of life at birth of male in most of the years under study is more than growth in female life expectancy. During the period 1951 to 1961, the growth of life expectancy for female was 2.51 percent and 2.57 percent for male which slide down to -0.17 percent and -0.85 percent in 1990-91, respectively. Showing a little increment in 1991-92, it was 0.86 percent for male and 0.68 percent for female. Afterwards it shows downward trend in case of male life expectancy growth. However female life expectancy turns to be above 1 percent in 1992/93 and 1993/94 and later it also slowed down. In period 2002-06/06-10 growth of life expectancy of male was 0.63 percent and that of female was 0.74 percent. Projections show that this growth will further decline 0.16 and 0.19 percent by 2016-20/21-25 (P). *Thus, though life expectancy is increasing and is more for female but its growth rate show an opposite picture of slowing down.*

Table 3: Average annual growth of expectation of Life at Birth (in percent)

Year	Male	Female
1951/61	2.57	2.51
1990/91	-0.85	-0.17
1991/92	0.86	0.68
1992/93	0.68	1.19
1993/94	0.68	1.17
1994/95	0.51	0.83
2002-06/06-10	0.63	0.74
2016-20/21-25 (P)	0.16	0.19

Note: P means projections

Source: Calculated from Census of India

Infant Mortality Rate is often used as an indicator of the level of health in a country. Overall annual growth rate of IMR has been for -2.72 percent per annum for total population, for rural it has been -2.68 percent per annum and -2.42 percent in case of urban population. Analysis of pre- and post-liberalization annual growth rates shows that the total IMR growth in pre liberalization has been -2.76 percent per annum and in post liberalization, it has been -2.54 percent (table 4). *Thus it can be concluded that IMR is declining both at total and subdivision level and much of decline in IMR took place in pre liberalization than post liberalization. Decline in IMR shows improved picture of quality of life.*

Table 4: Average Annual Growth of Infant Mortality Rate

Year	Rural	Urban	Total
CAGR up to 1990 (%)	-2.70	-2.46	-2.76
CAGR Post 1990s (%)	-2.45	-2.30	-2.54
CAGR Overall Period (%)	-2.68	-2.42	-2.72

Note: Excludes J&K due to non-receipts of returns

Source: Calculated from SRS, Registrar General

Total Fertility Rate defined as average number of children that would be born to a woman if she experiences the current fertility pattern throughout her reproductive span (15-49 years). Change in India's TFR and its growth is given in table 5. Both in rural and urban faster decline in TFR growth has occurred in the post 1990s as compared to the pre- 1990s period. Thus it is seen that though TFR is declining both at total and subdivision level but most of it has been in the post-liberalization regime. With introduction of new contraceptives and medical treatments and increasing literacy among females during reform period has lead to fall in total fertility rate.

Table 5: Average Annual Growth of Total Fertility Rate

Year	Rural	Urban	Total
CAGR up to 1990 (%)	-1.25	-1.58	-1.37
CAGR Post 1990s (%)	-1.75	-1.91	-1.90
CAGR overall period (%)	-1.66	-1.93	-1.81

Note: Excludes J&K due to non-receipts of returns
Source: Calculated from SRS, Registrar General

Increasing population at a high speed is the biggest road-block in the path of economic growth. Due to lack of resources it becomes difficult to meet up growing population demand. No doubt Indian population is increasing day by day but table 6 presents a different picture of population growth. Analysis of average annual growth rate of population it has been found that after 1990's, the growth rate is showing a downward trend of 1.97 percent per annum; it has grown at the rate of 1.64 percent in the decade of 2000s. *Thus this slide down in average growth of population will be positive only if most of the population is earning, healthy and sufficient resources are available.*

Table 6: Average Annual Growth of Population of India (in Percent)

Year	Population Growth (Percent per annum)
1951/61	1.98
1961/71	2.24
1971/81	2.23
1981/91	2.16
1991/2001	1.97
2001/11	1.64

Source: Calculated from Office of the Registrar General of India

Conclusion and Suggestion

An analysis of structure and growth of human capital in India is indicative of the fact that over a period of time the input, processes and output related parameters of human capital have improved over time. Education is now the key to eliminate gender inequality, to reduce poverty, to create a sustainable planet, to prevent needless deaths and illness, and to foster peace. In a knowledge economy, education is the new currency by which nations maintain economic competitiveness and global prosperity. Gender based gap in human capital has narrowed down over time. Much of this improvement has been during the new policy regime. This improvement is not inconsonance with the

new policy regime requirements; still it is far from satisfactory level. Thorough restructuring of education and health related systems and sub-systems are need of the time.

REFERENCES

1. Appleton, Simon and Teal, Francis (1998). Human Capital and Economics Development, African Development Report.
2. Fernandez, Enric and Mauro, Paolo (2000). The Role of Human Capital in Economic Growth: The Case of Spain, Working Paper00/8,IMF,January1.
3. Jimenez, Emmanuel and Nguyen, Vy and Patrinos, Harry Anthony (2012). Human Capital Development and Economic Growth in Malaysia and Thailand, Working Paper, Human Development Network Education Unit, November.
4. Neagu, Olimpia (2012). Measuring the Effects of Human Capital on Growth in The Case of Romania, Western University of Arad, Romania, April 30.
5. Philipson, Tomas and Soares, Rodrigo (2001). Human Capital, Longevity, and Economic growth: A Quantitative Assessment of Full Income Measures, Working Paper, University of Chicago, April.