



Trends in Status of Education in India: A Present Scenarios

(Dr. V. Mallika, M.Sc., M. Phil., Ph.D , Assistant Professor of Economics, Post Graduate and Research Department of Economics, Erode Arts and Science College (Autonomous), Tamil Nadu)

Introduction

Education is a fundamental human right as well as a substance for the economic growth and human development. India occupy the second place among the world's populated countries, with a population of 1.21 billion (2011 census). However when the age structure of the India is considered as 65 percentage of the population under the age group of 15to 64 years and 30 per cent of the population were under the age of 15 years. It can be inferred that India's population is very young. When literacy rate of India is considered as the time of independence was mere as 14 percentage. In 2011, India's literacy rate was 74.04 per cent, over the year's literacy rate has been increasing but with varied rates in different states of India, like Kerala and Mizoram were above the national average and Bihar with a low rate of 63.8 per cent. This paper mainly focus on the trend of literacy rate in India, the growth of public expenditure on education in India and the steps taken by the government in accelerating the Education planning in India.

Indian has witnessed a progressive growth in the field of education, and it has second largest educational system in the world after China wherein more than one million primary and secondary schools cater the educational needs of the Indian children. Since Education is a critical issue in human resource development, early Indian planners paid due attention for the improvement of the sector. Subsequently, with the introduction of Human Development Index (HDI) and Gender related Development Index (GDI) by the United Nations, which accord a large proportion of their criteria to educational factor; it becomes necessary for all countries in the World to give priority attention to education sector.

Objectives of the study

The main objectives of the study are,

1. To analyse the trend of literacy rates in India from the various census periods.
2. To study the growth of public expenditure on education in India

Methodology of the study

The data has been collected from secondary sources comprising of Census Report of India various issues, Education Statistics and Ministry of Human Resource Development Reports. The collected data has been classified and analysed in a systematic manner. For this analysis, statistical tools like Simple Linear Regression Model have been used in this study. The linear trend equation of the form,

$$Y_i = \alpha + \beta X_i + U_i.$$

Where, Y is literacy rates and Gross enrollment ratio and Expenditure on Education in India. X_i is the time periods (where, $i=1, 2,3,\dots,n$) and

$$\beta = \frac{\sum x_i y_i}{\sum x_i^2}.$$

If β is positive then y is increasing over time and if β is negative y is decreasing over time. If β has statistically significant at 5 per cent level and at $(n-2)$ degrees of freedom and R^2 value is fairly high indicates that the change in y every year is a constant and is equal to β .

The Scenario of Literacy Rate in India

Indian economy has entered a high growth of GDP at about 7.3 percent per annum in 2017. According to the 2011 Census report, the literacy rate was 72.98 per cent, it was considerably increases from time of independence. In 1951, literacy rate was 18.32 per cent, this was varied between male and female literacy rate (8.86 per cent of male literacy and 27.15 per cent of female literacy rate in India). High dropout rates may be a reason for this gap between male and female literacy rate in India. The gap between male and female literacy rate was 18.3 per cent during the time of independence. The literacy rate was continuously increasing in the next and next census years. Literacy rate was differentiated between rural and urban areas, in Rural it was 12.1 per cent and in urban 34.59 per cent. There has been a vast gap between rural and urban literacy rates in India.

Table 1
Estimated trend of Literacy Rates in Post Independent India From 1951 to 2011

Literacy rate		α	β	Standard Error of β	t-Statistics of β	Sig-t	R^2
Rural	Male	-1796.85	9.33**	0.08	12.04	0.000	0.97
	Female	-1738.46	8.91**	0.92	9.69	0.000	0.95
	Total	-1724.29	8.89**	0.10	8.59	0.000	0.94
Urban	Male	-1234.52	6.60**	0.10	6.83	0.001	0.90
	Female	-1737.93	9.05**	0.07	14.03	0.000	0.98
	Total	-1402.86	7.41**	0.10	7.79	0.000	0.92
Combined	Male	-1733.07	9.03**	0.03	29.17	0.000	0.99
	Female	-1832.62	9.42**	0.07	14.31	0.000	0.98
	Total	-1779.96	9.21**	0.03	27.57	0.000	0.99

Note : ** indicates that statistically significant at 5 per cent level.

Source: Computed values from Ministry of Human Resource Development various Reports.

Table 1 show that the estimated trend of literacy rates in post-independence India from the census period 1951 to 2011. Most of the slope coefficient was statistically significant at 5 per cent level. In Rural India, on an average, the literacy rate was increased to 8.89 per cent per census year. In Urban India, the slope coefficient was about 7.41, it was suggesting that for the various census period, an increase in literacy rate of one percent led, on average, to an increase of about 7.41 per cent in Literacy rate in India. According to the data, the average, literacy rate was went up by about 9.21 per cent for a census period. R^2 measures that, above 90 percentage of the variations in the dependent variable (Literacy rates) that can be explained by the independent variable (Census year).

Table 2
Estimated regression results of Gross Enrollment Ratio India from 1991 to 2011

Gross Enrollment Ratio		α	β	Standard Error of β	t-Stat of β	Sig-t	R^2
Primary	Male	110.22	-0.35	0.63	-0.55	0.595	0.03
	Female	92.72	1.72	0.99	1.73	0.114	0.23
	Total	101.76	0.65	0.80	0.81	0.435	0.06
Upper Primary	Male	73.29	1.20	0.33	3.34	0.007	0.54
	Female	50.91	3.77**	0.35	10.70	0.000	0.92
	Total	62.63	2.41**	0.32	7.64	0.000	0.85
Elementary	Male	96.42	0.22	0.41	0.53	0.608	0.03
	Female	77.38	2.44	0.69	3.56	0.005	0.56
	Total	87.26	1.28	0.54	2.38	0.039	0.36

Note : ** indicates that statistically significant at 5 per cent level.

Source: Computed values from Ministry of Human Resource Development various Reports.

The above table depicts that the estimated regression results of Gross Enrollment ratio in India from 1991 to 2011. The slope coefficient of upper primary education was statistically significant at 5 percent and 10 per cent level. The slope coefficient of Gross Enrollment ratio under the Primary Education was about 0.65, it was suggesting that, for the sample period, an increase in primary level education was one percent, it led to, on average, to an increase of about 0.65 per cent in gross enrollment ratio. According to the data, the average gross enrollment ratio of upper primary level education went up by about 2.4 per cent over a period of time. Gross Enrollment ratio of Primary Education and Elementary Education was statistically insignificant at 5 per cent level. It is inferred that, the enrollment ratio of primary education of male was declined on an average of 0.35 per cent over the study period. R^2 measures that, most of the variables are least percentage of the variations in the dependent variable (Literacy rates) that can be explained by the independent variable (Census year).

Table 3
Estimated regression results of Intra Sectoral allocation of Public Expenditure
on education in India from 2001-02 to 2013-14
(in percent)

Sectoral Allocation	α	β	Standard error of β	t-Stat of β	Sig-t	R ²
Elementary Sector	50.53	-0.67	0.19	-3.57	0.004	0.54
Secondary Sector	33.38	-0.86	0.23	-3.76	0.003	0.56
University and Higher Education	13.53	0.54	0.35	1.52	0.157	0.17
Technical Education	0.69	1.12**	0.13	8.53	0.000	0.88
Others Sector including adult	1.95	-0.14	0.05	-2.56	0.259	0.37

Note: ** indicates that statistically significant at 5 per cent level.

Source: Computed Values from Analysis of Budgeted Expenditure on Education, Ministry of HRD, Govt. of India various issues.

Table 3 depicts that the estimated trend results of Intra sectoral allocation of public expenditure on education in India from 2001-02 to 2013-14. Only one variable are statistically significant and the other variables are statistically in significant at 5 per cent level. The share of elementary education in total expenditure has marginally decline from over 50 percent to 44.59 percent in 2013-14. The percentage share of secondary education has also shown declining trends, its share has decline from 33.80 percent to 24.86 in 2013-14. Share of university and higher education in total expenditure increased from 14.71 to 24.47 in 2007-08 thereafter it starts declining. Presently the share of higher education in total expenditure on education is 15.29 percent. Government spend less than one percent of GDP on higher education, this has seriously hampered the quality of higher education in India. Significantly increased in the expenditure on technical education has been found. The share of technical education in total expenditure has increased sub-stationally from 3% in 2001 to percent to 15 percent in 2013-14.

Table 4
Estimated Regression Results of Public Expenditure on Education and
Gross Domestic Product (GDP) from 1951-52 to 2013-14
(Rs. in crore)

Public Expenditure on Education	α	β	Standard Error of β	t-Stat of β	Sig-t	R ²
GDP at Current Price (at Factor cost) (Rs. crore)	-2497741	839292.6	49313.75	17.02	0.000	0.96
Total Expenditure on Education by Education and other Departments (Rs. crore)	-106975	33745.9	2377.16	14.19	0.000	0.94
Expenditure on Education by Education and other Departments as % of GDP	1.78	0.19	0.04	4.65	0.000	0.62

Note : ** indicates that statistically significant at 5 per cent level.

Source: Computed Values from Ministry of Human Resource Development Report.

Table 4 shows that the estimated regression results of public expenditure on education and Gross Domestic Product from 1951-52 to 2013-14. The above three variables are statistically significant at 5 per cent level. The slope coefficient of GDP was 839292.6, it was inferred that, an on average of one crore of public expenditure was increases, it led to, DGP at factor cost was increase of about Rs. 839292.6 crores over the period of study. According to the data, the average total expenditure of Education was went up by about Rs. 33, 746 crores during the sample period. R^2 measures that, above 90 percentage of the variations in GDP at factor cost and total expenditure on Education that can be explained by the independent variable (study period). The slope coefficient of education as percentage of GDP was 0.19, this had disclosed that, one percentage of expenditure on education was increases, an on average of 0.19 percent of GDP was increases. R^2 indicates that, 62 percentage of the variation in the dependent variable that can be explained by the independent variable.

Table 5
International Comparison on Gross Enrolment Ratio and Public Expenditure on Education as Percentage of GDP-2014

Countries	Gross Enrolment Ratio				Public Expenditure on Education as percent of GDP
	Primary (I-V)	Lower Secondary (VI-VIII)	Upper Secondary (IX-XII)	Tertiary	
India	101.4	89.3	62.5	23.0	4.13
Bangladesh	111.9 ⁻³	76.1 ⁻¹	44.7 ⁻¹	13.4	1.97 ⁻¹
Nepal	135.2	90.4	49.7	15.8	4.71
Pakistan	93.6	55.9	31.1	10.4	2.47
Sri Lanka	101.3	99.7	99.1 ⁻¹	20.7	1.62 ⁻¹
China	103.9	100.4	88.8	39.4	NA
Germany	103.3	101.6 ⁻¹	104.6	65.5	4.93 ⁻²
Russia	98.6	98.7	105.1	78.7	4.15 ⁻²
South Africa	99.7	94.9	93.1	19.7 ⁻¹	6.05
UK	108.2	112.7	138.2	56.5	5.68 ⁻¹
USA	99.5	101.9	93.2	86.7	5.22 ⁻³

Source: Educational Statistics at a Glance - 2015.

Table 5 shows that the international comparison of Gross Enrollment Ratio and public expenditure on Education as percentage of GDP in 2014. In India, GER of primary education, Upper primary and secondary education was (101.4 per cent, 89.3 per cent and 62.5 per cent) high compared to Pakistan, Russia, South Africa and USA. . The developed countries like UK, USA and Germany, GER of Primary education to higher secondary education was continuously increasing. At the same time, there was a fluctuations in spending of public expenditure on education both the developing and developed countries. There are some advanced countries spending more than six percent of GDP on education like USA (6.4%), New Zealand (6.9%), Norway (6.5%) and United Kingdom (6.3%). Per capita expenditure on education in India is one of the lowest in the world. Shortage of funds acts as obstacles in quantitative expansion and qualitative improvement on education. Government spend less than one percent of GDP on higher education.

Conclusion

The study concluded that, in India, on an average, the literacy rate was increased to 8.89 per cent per census year. In Urban India, the slope coefficient was about 7.41, it was suggesting that for the various census period, an increase in literacy rate of one percent led, on average, to an increase of about 7.41 per cent in Literacy rate in India. According to the data, the average gross enrollment ratio of upper primary level education went up by about 2.4 per cent over a period of time. Gross Enrollment ratio of Primary Education and Elementary Education was statistically insignificant at 5 per cent level. The average total expenditure of Education was went up by about Rs. 33, 746 crores during the sample period. Government spend less than one percent of GDP on higher education. Per capita expenditure on education in India is one of the lowest in the world. Shortage of funds acts as obstacles in quantitative expansion and qualitative improvement on education.

References

1. DR. Navinchandra R. Shah, "**Literacy Rate in India**", International Journal of Research in all subjects in Multi Languages, Vol. No.1, Issue: 7, October 2013.
2. Census of India, office of Registrar General, India-2011.
3. Ministry of Human Resource Development various Reports.
4. Education Statistics at a glance 2016.
5. Cooray, A. V. (2009). The role of education in economic growth. Proceedings of the 2009 Australian Conference of Economists (pp.1-27). Adelaide, Australia: South Australian Branch of the Economic Society of Australia.
6. Sayantan Ghosh Dastidar and Monojit Chatterji (2015), "Public expenditure in different education sectors and economic growth: The Indian experience", MPRA Paper No. 66903, posted 25. September 2015 19:52 UTC.
7. Tasleem Araf C (2016) Trends, Growth and Changing Patterns of Public Expenditure on Education in India. J Glob Econ 4: 226. doi: 10.4172/2375-4389.1000226.
8. An analysis of Budgetary Expenditure on Education. Ministry of Human Development Government of India various issues.
9. Sreenivasulu.E (2013), "Role and importance of Educational for effective Growth of Indian Economy, An Overview", IOSR Journal of Humanities and Social Science (IOSR-JHSS) Volume 7, Issue 5 (Jan. - Feb. 2013), PP 32-35