

# Role of Education in Economic Development: An Analysis Highlighting the Evidences across Countries.

**Shyamal Jyoti Gogoi**

*MA in Economics, Dibrugarh University, Dibrugarh-786004*

Rituparna Dutta,

*MA in Economics, Dibrugarh University, Dibrugarh-786004*

**ABSTRACT:** *The purpose of this paper is to analyse the relationship between education and economic development. A detailed discussion on the role of education in economic development with evidence found in different studies has been presented in the paper. Without significant investments in human capital, no country can achieve long-term economic success. Education can be viewed as a key aspect in development as well as a prerequisite for the broader nation of improved human capacities that is at the heart of development's meaning. It helps people in understanding themselves and the world. It improves their quality of life and provides a variety of social benefits to both individuals and society. It is essential for boosting people's productivity and creativity, as well as stimulating entrepreneurship and technical developments. It is also necessary for assuring economic and social progress, as well as enhancing income distribution.*

**KEYWORDS:** *Education, Economic Development, Productivity, Human Capital, Entrepreneurship.*

**INTRODUCTION:** Education lays the foundations for progress, laying the foundation for much of our economic and social well-being. It is essential for improving economic efficiency and social cohesion. It helps to lift the poor out of poverty by enhancing the value and efficiency of their labour. It improves the total productivity and intellectual flexibility of labour forces and also helps to raise the efficiency and income of the workers which reduces the poverty and inequality. Education helps in ensuring a country's competitiveness in today's global marketplaces, which are defined by rapidly changing technologies and production methods. Education helps in nation building and interpersonal tolerance by boosting a child's early integration with different social or ethnic groups, as well as stimulating entrepreneurship and technological developments. The notion of human capital was popularised by the endogenous growth theory of development, which views education as a method of ensuring economic progress. Education is a crucial input of human capital formation, which transforms raw human resources of a country into highly productive human resources.

**OBJECTIVE:** The main objective of this paper is to analyse the relationship between education and economic development. A detailed discussion on the role of education in economic development with evidence found in different studies has been presented in the paper. Another objective is to draw a comparison between developed and developing countries in terms of investment made on education and suggest some policy measures to

**METHODOLOGY:** The paper is descriptive in nature and secondary data and information have been used. The required secondary data and information have been collected from different book, journals, articles and sources like Economic Development, Competition Success review etc.

## **ANALYSIS:**

**Role of Education in Economic Development:** Education plays an important role in the economic development of any country, may it be developed or developing. Many resources play a vital role in the growth and development of a country's economy, one of the most important of which is human capital, which refers to the country's workforce. A good and productive workforce by making use of other resources can lead an economy in to growth and prosperity. One of the major factors in developing this resource i.e. human capital is education. Therefore education is one of the most important factors that lead a country to sustain economic development. As a result, education has become a critical component of all government policies. Much effort has been done with respect to education in many developing countries. To solve the problem of inequality the government should have a balanced approach towards spending in both the primary and higher education. Economists today recognise that investing in education, or human capital, is a critical component of the economic growth process. Various studies provide strong and consistent evidence that more educated worker are more productive and that they earn higher salaries.

General GDP growth and per capita income are in a positive relationship with the primary school enrollment labour force ratio. Therefore it is concluded that primary education is a foundation stone for economic development. The government should put all in efforts to provide primary education to every one of age that needs it and then it can need off to the path of economic development.

The study of Entrepreneurship selection and Performance A Meta Analysis of the impact of education in LDC's conducted in 2004 by Van Der Sluis, Mirjam Van Praag and Wim Vijverber provides an analytical view of the impact of Education in LDC's on selection of entrepreneurship. It also proves that a marginal year of schooling raises the enterprise income 5.5%. These returns differ depending on whether you live in the city or the country.

The results of additional years of education are higher for women in developed countries than the ones living in rural areas, according to a study by the Organisation for Economic Co-operation and Development (OECD) and the US Department of Education. This suggests that uneducated women mostly work in low income sectors like food or textile. This means that education leads women into higher-paying jobs. Our education policy is to invest more on higher education in the expense of primary education. There is a demand for highly skilled labour and the government should give special attention to the availability of education and training.

**Education in Economic Development:** Till recently economists have been considering physical capital as the most important factor determining economic growth and development and recommending the rate of physical capital formation in developing countries must be increased to accelerate the process of economic development and raise the living standard of the people. But in the last decade economic research has revealed the importance of education is a crucial factor for economic development. Education is the process of improving people's or labour force's human abilities and knowledge.

Quantitative expansion of educational opportunities along with qualitative improvement of education imparted to labour force holds the key to economic development because of its significant contribution to economic development. Education has been referred to as human capital, and the cost of educating individuals has been referred to as an investment in man or human capital. Education has been referred to as human capital, and the cost of educating individuals has been referred to as an investment in man or human capital.

In regard to the importance of education capital, "Human resources constitute the ultimate base of production," argues Proff. Harbison. Human beings are the active agents who accumulate capital, exploit natural resources, build social, economic and political organizations and carry a forward national development. A country which is made to develop the skills and knowledge of its people and to utilize them effectively in the national economy will be unable to develop anything else."

Social empirical studies made in development countries especially the USA regarding the sources of growth or development or in other word, contribution made by various factor: physical capital, labour, education etc. have shown that education on the development of human capital is a significant sources of economic development.

Prof. Solow who was one of the first economist to measure the contribution of human capital to economic development on growth estimated that for US between 1909 and 1949, 57.5% of the growth in output per man hour could be attributed to the residual factor which represents the effect of technological change and of the improvement is the quality of labour mainly as a consequence of education.

**Historical Background:** Prior to the nineteenth century, systematic human capital investment was not regarded as particularly significant in any country. Schooling, on-the-job training, and other related types of investment were quite minor. This began to alter dramatically throughout the twentieth century, with the application of science to the invention of new items and more efficient techniques of manufacturing, initially in the United Kingdom and then gradually spread to other nations. Education, skills, and knowledge acquisition have all become important factors of a person's and a country's production during the twentieth century.

One could even call the twentieth century the "Age of Human Capital," in the sense that how well a country succeeds in developing and utilising skills and knowledge, as well as furthering the health and education of the majority of its population, is the primary determinant of a country's standard of living.

Access to basic education has grown dramatically in the Middle East during the last several decades. Many nations are now on the verge of expanding access to secondary and higher education, as well as making dramatic advances in the quality of education provided at all levels. Middle Eastern countries are becoming more integrated into global markets for manufactured goods. Their capacity to compete in these markets, as well as in globalising service markets, will be determined by the quality of human capital they bring to the table. To ensure that all citizens are educated and numerate, that many have a wide range of problem-solving skills beyond the basic level, and that some have world-class professional skills, new curricula, improved teacher programmes, and academic methods that encourage higher order cognitive skills will be required.

Without significant investment in human capital, no country has achieved consistent economic success. Previous study has shown that many kinds of human capital accumulation, such as basic education, research, training, learning-by-doing, and aptitude development, requite qualitative returns. The distribution of education is important. In most nations, unequal education has a negative influence on per capita income.

The effects of average education on per capita income vary from region to region and depend on the type of education provided, as well as how it is delivered. These factors are controlled for by controlling for human capital distribution and using appropriate functional form specifications consistent with the asset allocation model. Human capital investment will have little influence on growth unless individuals can employ education in competitive and free marketplaces. The bigger the size and competitiveness of these marketplaces, the greater the opportunities for employing education and skills.

**Contribution of Education to Economic Development:**

**i. Education and Productivity:** The educational provisions in any particular nation are one of the key factors of the composition and growth of that country's production and exports, and they are a crucial component in a system's ability to efficiently borrow foreign technology. For example, health, nutrition, and primary and secondary education increase workers' productivity both rural and urban. Secondary education includes vocational training, the acquisition of skills and managerial capacity. Tertiary education is also important for the development of a country, which includes college, universities, vocational courses etc. At a micro level indicates that increases in earnings are associated with additional years of education with the rate of return varying with high level of education. The returns to primary schooling tend to be greater than returns to secondary and tertiary education. Various evidences suggested that higher the level of education of the work force the higher the level of productivity as the more educated are more likely to innovate, thus affect everyone's productivity. In agriculture, evidence suggests positive effects of education on productivity among farmers using modern technologies but less impact among those using traditional methods. Increased education of individuals raises not just their own, but also the productivity of others with whom they connect.

**ii. Education and Income:** There is also a positive feedback loop from improved education to more income equality, which favours faster growth rates. The role of education in economic development must not be confined to judge its impact on growth in output but also include its impact on structure and pattern on the income distribution and poverty. Low-income individuals will be better equipped to seek out economic possibilities if education becomes more broadly distributed. For example, a 1980s research of the relationship between education, income disparity, and poverty in 18 Latin American nations found that education is definitely the variable with the greatest influence on income equality.

**iii. Education and Trade:** It is impossible for any country to be successful in its trade. Investment in education and learning make a country's export sector more competitive. Knowledge accumulation has an impact on a country's trade performance and competitiveness, and trade, in turn, improves knowledge accumulation, particularly through imports. According to a World Bank research, economic growth rates were exceptionally high in a sample of 60 developing nations from 1965 to 1987 when there was a mix of high education and openness.

**Effect of schooling on National income in a Market Economy:** Human capital has a direct influence on the compensation of educated workers and an indirect effect on the productivity of physical capital and the productivity of other workers.

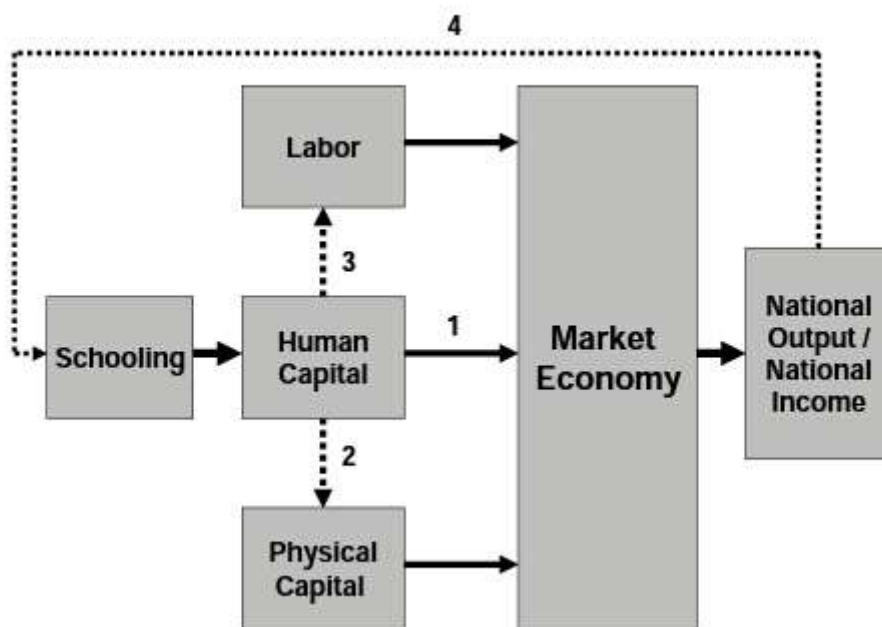


Figure: Effect of Schooling on National Income in a Market Economy

The figure shows that the increase in schooling increases the nation's human capital. Human capital then has a direct effect on national income shown by the solid line and indirect effects on the productivity of the other two factors shown by the dotted line. The figure also shows a third indirect effect which is the positive feedback that rising income has the society's demand for education. It stimulates the effect on physical capital and the expected return on investment. Private investor then increase their

investment in physical capital and the expected return on investment, which has a direct effect on national income and an indirect effect on the productivity of human capital or labour. As these various effects work their way through the economy, economic output rises and national income increases along with it.

**Comparative Analysis of Investment on Education and literacy rate (in %):**

**Developed Countries:**

Countries	Literacy Rate (in %)	Expenditure on Education (% of GDP)	
	2012	2012	2018
Switzerland	99	4.858	4.861
Denmark	99	7.238	7.752
Norway	100	7.375	7.644
Netherland	99	5.41	5.358

Source:- World Bank Report 2012-2018

Country	Adult Literacy Rate (%)		GDP Per Capita		Life Expectancy at Birth		Human Development Index(HDI)	
	1995	2020	1965	2020	1995	2020	1995	2020
Netherlands	99	99	1708.10	52304.06	77.5	82.42	0.868	0.944
Norway	99	99	2164.47	67294.48	77.6	82.18	0.881	0.957
Denmark	99	99	2235	60908.84	75.3	81.03	0.837	0.940
Switzerland	99	99	2620.48	86601.56	78.2	8392	0.856	0.955

Though the above mentioned countries have achieved a very high level of literacy rate, they still continue to invest in Education a big portion of their GDP. It is not an immediate consequences or result of a huge investment. Generally it requires a longer period of time to achieve such a literacy rate as investment in education now will provide the return in the future. Highly educated and skilled population forms a higher productive workforce contributing to the growth and development of these countries.

**Under-Developed Countries:**

Countries	Literacy Rate (in %)		Expenditure on Education (% of GDP)	
	2015	2018	2012	2018
Bangladesh	61.54	73.91	2.2	1.99
India	71.2	74.4	3.3	3
Nepal	64.66	67.9	4.7	4.4
Pakistan	56.44	60	2.4	2.4

Source: World Development Report (2012)

Country	Adult Literacy Rate (%)			GDP Per Capita (USD)		Life Expectancy at Birth(Years)		Human Development Index(HDI) (1995)	
	1970	1995	2018	1965	2020	1995	2020	1995	2020
Bangladesh	25	38	73.91	106.65	1968.79	62	72.87	0.434	0.632
India	34	52	74.4	119.32	1900.71	60.32	69.66(2019)	0.461	0.645
Nepal	14	28	67.9	67.01	1155.14	58.14	70.88	0.419	0.602
Pakistan	20	38	60	116.45	1193.73	61.50	67.43	0.426	0.557

These under-developed countries shown a lower literacy rate, which indicates that, there is less skilled and uneducated workforce in these countries. Therefore the productivity of these countries is low compared to developed countries, which have highly skill and educated work force. These under-develop countries with a lower literacy rate invest only a small portion of their GDP on education.

Alain Mingat of IREDU ,France and GEE-PENG Tan of the world bank found that low income countries benefited most from investment to expand primary education, the middle income countries from investment to expand secondary education and higher income countries from investment to expand higher education brought the higher social return.

**Trends in enrolment (In India):** From 0.17 million in 1950-51 to 10.48 million in 2004-05, the education system (excluding remote education) has grown. During the period 1950-51 and 2004-05, while total enrolment at higher education level has increased at an average annual growth rate of 8.04 percent, the growth rate in the total number of teachers has been 5.78 percent. The linked colleges enrol around 87 percent of students in higher education. In fact, linked colleges enrol more than 90 percent of graduate students and 65 percent of postgraduate students. It's also interesting to note that just 0.65% of students at higher education schools do research. It is usual practise to measure the importance given to education using measures such as public allocation as a percentage of GNP and budget. It may be noted that India has committed to allocate 6percent of GNP to education long ago. To realise the benefits of internationalisation of higher education, quality issues should take priority. A pragmatic approach to improving equity and access should be prioritised. The quality level of public and private institutions should be disclosed and brought to the general public's attention. Since the Indian system is very large, the University Grants Commission cannot monitor all the private institutions. The UGC can develop a clear policy and ask the various states to establish a separate agency for the purpose in accordance with the UGC's principles.

**Results:** The paper presents evidence that education has direct and indirect effects on national output and economic development. Educated workers immediately increase national GDP since their marginal productivity rises as a result of their education. They raise national income by increasing the marginal productivity of physical capital and of other workers. In highly educated countries the spillover effect on other workers is minimum but in less educated countries it is larger.

**Policy Measures and Suggestions:** The findings and discussion of the study refer to some policy measures and suggestions as follows:

- i. Increase in the Public Expenditure:** Govt. should increase the expenditure for the expansion of education for greater social and economic welfare.
- ii. Awareness for Education:** A pre-requisite condition for the growth and development of a country is to need citizens aware about the significance of education. A growing awareness towards education will lead to an overall human development a country too.
- iii. Basic Education for all:** A country should try to avail basic education facilities for all, including not only the younger generation but also the illiterate adults of the country. Measures like Education for all and Right to education can be adopted by a country to ensure access to education for all.
- iv. Primary Education as compulsion:** Compulsory primary education for all should be taken as an important goal for the overall growth and development especially in under developed and developing countries. Primary education act's as the base for further improvements in the education of a country. And hence should be given topmost priority.
- v. Incentive for Education:** In most of the under developed and developing countries it is seen that poor people prefer their children to work instead of sending them to school. As attending school involves direct costs also an opportunity cost, government should take incentive measures like free primary education, free book, and providing nutritious food to attract the poor section of the society towards education.

**CONCLUSION:** We can draw a conclusion here that developing countries still need to invest in education more in order to build a highly educated and skilled work force, resulting in increase in the productivity of these countries, which eventually lead to an overall growth and development of these countries.

Developed countries as compared to under developed countries have higher level of education which induces to produce larger output and higher incomes. With higher income people and government can effort to spend more on education and hence more development of the economy. Education has a crucial role in the development of human resources. Educated and qualified people drive social and economic changes. Therefore it is necessary to ensure that particularly the poor people and weaker section of the society to better quality education.

An initial investment made in education can generate a stream of high future income. Education is a crucial input of human capital formation, which transforms raw human resources. Investment in education leads to economic development, which reflects both social and economic progress. Therefore, it can be stated that education must be prioritised in every country for overall human development.

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