



Protagonist of Education in Economic Development

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Abstract: Establishing a knowledge based society in India is perceived as the foremost challenge in the immediate future. 'Knowledge' will not only be the driver of the Indian economy but also the source for attaining satisfactory quality of life and living conditions of every society. It can be realized with a strong and dynamic education system capable of supporting economic and social innovations and provide the basis for self-confidence and reduce the need of external dependency. A knowledge society shall not be interpreted as consisting only a great scholars and intellectuals.

Key words: dynamic education, development, transportation

“The highest education is that which does not merely give us
Information but makes our life in harmony with all existence”

— Rabindhranadh Tagore

Introduction

Education occupies a prominent role in the development of the nations. Education in fact is a ladder, and is a proper progressive process of development of every nation if it is shared by all over the nation. Simply, education is a multidimensional phenomenon. It makes man perfect; it is a key for all human resource development, a steepening stone for onward march or culture, a paving way of modern civilization, a store of knowledge, bedrock of all human progress and an exe of economic development. In this context an ancient proverb shall be called up on as it lays down as '*if you're planning for one year, plant rice, if you are planning for five years plant trees; if you are planning for the future educate your child*'. It is the secret and greatness of education in the life of human beings forever. The present chapter deals with the various advantages education and presented briefly.

Education and Economic Growth:

The studies of T.W.Schultz show that education is a kind of investment like dam or canal, in which invest to produce more in the future. His study shown that out lays for education may bring large increases in production, as a rupee invested in the intellectual improvement of human beings will often bring greater increase in natural income than a rupee devoted to railways, dams, machine tools, or other tangible capital goods. The provision of power, transportation, to literate people is bound to be productive there can be no effective advance if the masses and the people do not participate as literacy is economically efficient. Hence popular education must come before machine tools and it releases the engineers of the many in all countries of the world, and it is seen that high per capita incomes are associated with high rates of literacy.

Alfred marshal also emphasized the importance of education in national.



According to him education as a national investment; it is the most valuable capital, invested in human beings⁴. Human resources should be explicitly treated as a form capital. The earnings also differences compared with educated human beings and un educated. In western countries human capital has been growing at a faster rate than the non-human capital. The human capital component in the national income is very large as conservancy of human investment. Many of the developing countries now, allowing more resources on education to improve human resources.

Educational investments are generally believed to be non-negative. It was found by World Bank survey in 1979 by Stephen P. Heyneman with help of private and social returns derived from education. The private and social rates of returns continue to be large and hence schooling continues to expand. The private rates of returns for primary education in India range from 7 percent to 25 percent and the average annual earnings of workers in the primary education amounted to Rs 2000 against Rs. 1400 of illiterate works⁵.

One thing should be remember here that, Adam smith- in his 'wealth of nations' mentioned as 'an invisible hand i.e. selfishness of an individual efforts lead to development of him and ultimately develop the whole economy. Many of the economists agreed that accumulation of capital (investment) is a necessary condition for economic growth. Along with economists, policy makers have also been dealing with education as an investment good which gives returns and the role of education is a process of economic development through certain kinds of education notably higher level of

science and technology, technical training, agricultural education, medicine and other types of education in mind. In the study of D.R. Veena presented the empirical results of correlation between marginal (differences in) educational effort and the marginal rate of economic growth⁵. The results are:

a). Education in medical science, technology, agriculture and applied engineering science is significantly related to (gross national product) at the value of 0.69. b). Education in commerce, business, economic, political Science, public Administration, Social welfare, Sociology and statistics is also significantly related to GNP at the value of 0.62. c). Education in arts, music, fine arts, literature, languages and history is not significantly related to the GNP (0.16) and d). Education in pure science i.e. in astronomy, biology, chemistry, physics, zoology, mathematics, etc. is also not significantly related to the GNP (0.08).

Further, the above study also presented results by sectors of the economy as relationships between educational levels and indicators of economic development are also specific. For example: - the correlations between a). agricultural development and primary education (0.92), b) industrial development and some specific professional and technical education (0.87), c) social change in favor of economic development as reflected in the adoption of family planning and higher education (0.64) are some important values indicated in the parenthesis. Literate farmers with at least primary education are thought to be more productive and more responsive to new agricultural technologies than illiterate farmers. Specially trained craftsman and mechanics who can read



and write assumed to be better able to keep up to date with changing products and materials. Secondary school leavers with arithmetical and clerical and clerical skills are performing technical and administrative functions effectively in public and private bureaucracy⁶. Harbinson and Myers worked out the issue, that the rich countries spent more on human resources and they got more perception gross domestic product. It is reverse in case of poor countries.⁷

Some more detailed studies have concentrated on comparing the education structure of the labour force or on analyzing the relationship between education and productivity at both the sectoral and aggregate level. The famous study in those is the aggregate production function i.e. Cobb-Douglas, which is a homogenous function of degree one taking the general forms, has been notable by E F Denison.

$$X = A K^m L^{1-m}$$

Where x = out put

A = technical changes that a constant rate over a time.

K = input of capital in physical terms

L = is the input of educational skilled labour (usually in man hours) and

m, 1-m are constant and the sum of production elasticities equals unity to give constant returns to scale.

Generally it is found that the labour force embodies an increasing amount of education (measured in years) over a time. And the earnings differentials are associated with education. According to Denison, it is evident that the contribution of educated

labour to the growth of the USA by 0.75 percent is an additional component embodied in the labour to the GNP. This study has mostly applicable to the developing countries. The constant returns are the good position to attain optimum level of output. However, why India has not considered the education as an investment⁹

Attributes of Knowledge Society:

Establishing a knowledge based society in India is perceived as the foremost challenge in the immediate future. 'Knowledge' will not only be the driver of the Indian economy but also the source for attaining satisfactory quality of life and living conditions of every society. It can be realized with a strong and dynamic education system capable of supporting economic and social innovations and provide the basis for self-confidence and reduce the need of external dependency. A knowledge society shall not be interpreted as consisting only a great scholars and intellectuals. The education system should provide substantial and deliberate scope for work related experience in terms of various skills and healthy attitude towards skill development. At the same time the educational experiences should include ability to appreciate beauty and art forms and facilitate creative expressions.

Another aspect of a true knowledge society is the elimination of severe educational disparities among the regions and regions. This is a particularly worrisome aspect in Indian context. The disparities exist not only between the various states but also between the rural and urban areas as well as between public and private institutions¹².



Revolutions in education achieve success in providing quality education for people's development. The following features stressed these statements¹³.

* Technology use for giving total e-governance support both in administration and academic programmes.

* Content organization and development technologies on pedagogic principles for learning and developing.

* Organization of stakeholders for life-long learning (L3) and development.

* New system design with goals and approaches for promoting creativity, innovation and entrepreneurship leading to productivity and prosperity.

* System with core values for helping cooperative working and consortium building of provider organizations and institutions as well as of the user groups and communities.

• Built in quality assurance and R &D for linking knowledge creation at central and local levels with their use in developing institutions and locality. These are also the basic components for technology mediated open and distance education.

Education is the life time of development, be spiritual or economic, scientific or technological, natural or global. In the 21st century, countries will be measured by the education and health status of their population PQLI but not by GDP or GNP. So education levels indicate the country's development. Hence, an education policy and curriculum is to

educational institutions what a blue print is to an architect¹⁴.

India is a rich and old tradition of knowledge and learning. Education was chosen to be the prime instrument for transferring India from a poor, dependent and technologically backward country into an advanced nation. For the economic growth higher education provided suitable manpower, contributing knowledge, and also used to function as an instrument of equality.

Dr. B. R. Ambedkar observed that education is the right weapon to cut the social slavery and to enlighten the down trodden masses to come up and gain social status, economic betterment and political freedom¹⁵.

According to our president A.P.J Abdul Kalam, "Empowerment creates leaders in multiple developmental areas. When the child is empowered by the parents at various phases of growth, the child transforms into a responsible citizen. When the teacher is empowered with knowledge and experience good young human beings with value systems take a shape. When an individual or a team is empowered with technology, transformation to higher potential for achievement is certain. When the leaders of any institution empower his or her people, leaders are born who can change the nation in multiple areas. The Indian history has witnessed this, when the political leaders of the nation empower the people through visionary policies, the prosperity of the nation is assured. As young graduates empowered thorough education, enter into various parts of the country and work for the second vision of transforming India into a developed



Amartya Kumar sen and Jean Dreze say that education is valuable to the freedom of a person in certain distinct ways in that it has a certain personal roles, social roles and schooling process roles and it has been providing greater literacy to disadvantaged groups. As recently, Jejjbhyy has argued that the quality of life, especially women's health is severely constrained by low levels of education and control over economic and other material resources among women in the developing countries¹⁸. Rondore added that people need to learn knowledge and skills in order to escape from poverty merely raising their critical awareness will not provide those skills and knowledge. This approach is most relevant in our attempt to evolve an empowering education for all women in particular. He concluded that education at various levels- primary, secondary and higher, and in various forms, formal and non-formal, general and professional is a major tool for economic changes that would lead to raising a person receiving education about the poverty level, and so reducing the high poverty percentage of the country. It does this mainly by nothing the men and women, boys and girls who receive education employable through providing with the various skills. Education is liberating force cutting across barriers of caste, class and religion, smoothing out inequalities imposed by 6th and other circumstances. As such planned social change through education, serves as the major instrument for bringing about national development.¹⁹

Education and reduction in income inequalities:

It is very difficult to establish the linkages between education and reduction in income inequalities and

poverty. Most of the third world countries have launched upon programmes of universal education in the hope that they will improve the human capabilities of the poor people and enable them to increase their family earnings. In short, education is seen as a great egalitarian measure which would help in improving the human resources in general on the one hand other would enable the less privileged and poor classes of people to improve their economic lot.

Education and Rural Development:

Education can contribute significantly to rural development in a variety of ways. By widening the horizons of knowledge of the rural people, it can enable them to overcome ignorance and superstitions. Adoptions of new agricultural techniques and new methods of production are rendered easier if the farmers are educated. Education can be oriented as to impart skills and attitudes useful in improving the quality of family life. In labour surplus economies like India, education can help rural people in acquiring skills to setup cottage industries on their own so that the disguisedly unemployed people can be fruitfully employed in the villages themselves.

In recent, women empowerment programmes have been taken place in rural area. Women are participating in income generating activities with microfinance and getting good results. But illiteracy is the main drawback them to improve quantity and quality. If they are skilled and educated better returns they earn. In this context literacy campaign is under taken as an activity of their groups and they are following on.



Education and family planning:

Education helps in modernizing and revolutionizing the ways of thing of the people. It enlightens them of the needs to improve their standards of living and for this purpose, to restrict the size of their families. Fertility seems to have a strong correlation with the educational levels of mother. Average number of children born to women in India was 4.3. This figure for illiterates was 4.4 and those who middle was but below metric it declined to 3.8 but those who got education up to metric but below graduate it was 3.0 and those with a graduate degree and above, it was only 2.3. Therefore education serves as the best method of family planning in the long run. Also, as more and more women get education and seek employment, the fertility rates show a tendency to decline because upbringing of children is comparatively difficult task for working women²¹.

Advantages of Internationalization of Higher Education & Goals of Indian Education in 21st Century:

Internationalization of education is the one of the educational revelatory concept in 21st century. As mentioned in the chapter 3, India has also a vital role internationally. Internationalization of education promotes values and culture of the other countries and generates good will in the rest of the world. It creates good opportunity to enrich the teaching learning process. It is the well-known fact that the developing countries like India, is backward to enhance the quality of education than the other countries. But the present system necessitates enhancing the quality education with other countries and it also encouraging the competitiveness internationally.

Besides internationalization of education helps generate financial resources.

“Asatoma Sadgamayah
Tamasoma Jyotirgamayah
Mrityoma Amritam gamayah”

The meaning of the above quotation is -Let me (oh lord!) from untruth to truth, from darkness to light, from death to immortality. This was the ultimate basis of man's education from the Vedic times. Tagore called education as parrot of his time, now primacy of human value of fraternity and productive work had been stressed as pre requisite for true education. The aim of Indian modern education is quite in conformity with the ancient aims of education say the creation of health, moral, useful citizens for Indian society, the change in the modern system is only the impact of science on our culture human minds and lives²². Along with the changing present scenario the goals of Indian education changing well. According to D. C Das, Indian education will serve the following goals in the 21st century²³:

1. To increase the individual's ability -the speed and economy with which one can adopt to continual change.
2. To develop critical awareness among Indian masses about the existing social reality.
3. To ensure a better quality of life
4. To help achieve constitutional goals.
5. To act as a catalyst for socio-economic and political change by removing the existing socio-economic imbalances.
6. To meet the challenges of the future society
7. To improve the efficiency in teaching learning process



8. To develop an awareness of problems of future, specially, food, water, energy pollution, health and population

9. To give importance on combining science and humanism.

10. To cultivate simultaneously scientific temper of mind and tolerance.

11. To remove literacy and ensure universalization of education

12. To inculcate the dignity for labour and morality of work

13. To vocationally education at all levels.

14. To include moral and ethical values among students in particular and society in general

15. To increase productivity and achieve social justice

16. To emphasize the esthetic and recent recreational aspects.

17. To develop lifelong learning abilities among the individuals and.

18. To build character and develop leadership qualities in every walls of life of the individuals.

In many developing countries formal education is the largest "industry" and the greatest consumers of public revenues. For this, nations have invested huge sums of money in education. The reasons are numerous. Literate farmers with at least a primary education are thought to be more productive and more respective to new agricultural technologies than illiterate farmers assumed to be better able to keep up -to-date with changing products and materials. Secondary school graduates with some knowledge of arithmetic and crucial skills are needed to perform technical and administrative functions in growing public and private bureaucracies. In former colonial countries many people with such skills are also needed to replace departing expatriates.

In short, the benefits/returns derive from education are analyzed with 3 headings namely direct monetary returns, indirect monetary returns and non-monetary returns.

As far as direct financial returns is concerned, returns through employment by educate indicate the direct returns. As with costs the proxy value of high school graduate and his returns, earnings of college graduate is different and college, college graduate gets high incomes than the high school. Studies shows, the high school educated worker is more likely the suffer unemployment than the college graduate. Educated demands that, higher wages can get along with increase in productivity.

Education- Stigma- Prestige Effect

Education provides non-monetary returns. These can be treated as consumption benefits that yield private and perhaps social returns. Leisure related benefits and work related benefits and work-related benefits which are commonly known as Stigma- Prestige Effect are non-monetary benefits. This effect cuts across all uses of time, work and play coloring the individual's while life. Years ago a college education was a source of prestige. It suggested the intelligence, ambition, foresight and right values associated with those who attain a privileged status. Returns from hum investment (in education) reflect on output and demand for extra labour efforts by education but not investment. On the other, the college graduate takes pleasure in the importance and prestige of his position even at lower wage rate.

Adam Smith noted this phenomenon in this discussion of ' compensatory differences of inequalities



in wage among job requiring' and these may most satisfactory job and enjoys prestige, responsibility etc. associated with these jobs. Non-monetary returns are related to general benefits to maintain healthy society and stable government. Education treated as a means of reducing the teen age crime rate. It strengthens democratic principles, people's ability to expose their leaders wisely, if not always too well. The educated mind is trained to enquire and question, not to accept authority by default. The global warming due to pollution, can control by educate the public.

Conclusion:

Basing on the above analysis it is concluded that the importance of education is vided. So a broad experience is required in this juncture. As such, an attempt is made in this study and concentrate on the expansion of Indian education during the period 1951 to 2001. The conditions of Indian economy (now and then/ before and after economic reforms), like population pressure, social, economic and educational inequalities among the states is one side, educational revolution especially in IT on the other side should attract to the researchers, policy makers, administration etc. to study and to find out the educational growth in the country. The forth coming chapters enumerate this concepts including projections up to 2021.

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