

# **Human Capital Theory: Implications for Educational Development**

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## **Abstract**

The belief that education is an engine of growth rests on the quality and quantity of education in any country. The paper posits that formal education is highly instrumental and even necessary to improve the production capacity of a nation and discusses the rationality behind investment in human capital. Empirical evidences of human capital model were identified and findings reveal that investment in education has positive correlation with economic growth and development. Criteria for the applicability and problems associated with the theory were identified and implications for educational development highlighted. Conclusively, the paper recommends that for education to contribute significantly to economic growth and development, it must be of high quality to meet the skill-demand needs of the economy.

## **Introduction**

Education is an economic good because it is not easily obtainable and thus needs to be apportioned. Economists regard education as both consumer and capital good because it offers utility to a consumer and also serves as an input into the production of other goods and services. As a capital good, education can be used to develop the human resources necessary for economic and social transformation. The focus on education as a capital good relates to the concept of human capital, which emphasizes that the development of skills is an important factor in production activities. It is widely accepted that education creates improved citizens and helps to upgrade the general standard of living in a society. Therefore, positive social change is likely to be associated with the production of qualitative citizenry. This increasing faith in education as an agent of change in many developing countries, including Nigeria, has led to a heavy investment in it. The pressure for higher education in many developing countries has undoubtedly been helped by public perception of financial reward from pursuing such education. Generally, this goes with the belief that expanding education promotes economic growth.

However, the paradox accompanying this belief is that, despite the huge investment on education, there is little evidence of growth-promoting externalities of education in Nigeria.

## Concept of Human Capital Theory

The economic prosperity and functioning of a nation depend on its physical and human capital stock. Whereas the former has traditionally been the focus of economic research, factors affecting the enhancement of human skills and talent are increasingly figuring in the research of social and behavioural sciences. In general terms, human capital represents the investment people make in themselves that enhance their economic productivity.

The theoretical framework most responsible for the wholesome adoption of education and development policies has come to be known as human capital theory. Based upon the work of Schultz (1971), Sakamoto and Powers (1995), Psacharopoulos and Woodhall (1997), human capital theory rests on the assumption that formal education is highly instrumental and even necessary to improve the production capacity of a population. In short, the human capital theorists argue that an educated population is a productive population.

Human capital theory emphasizes how education increases the productivity and efficiency of workers by increasing the level of cognitive stock of economically productive human capability which is a product of innate abilities and investment in human beings. The provision of formal education is seen as a productive investment in human capital, which the proponents of the theory have considered as equally or even more equally worthwhile than that of physical capital.

According to Babalola (2003), the rationality behind investment in human capital is based on three arguments:

- i. that the new generation must be given the appropriate parts of the knowledge which has already been accumulated by previous generations;
- ii. that new generation should be taught how existing knowledge should be used to develop new products, to introduce new processes and production methods and social services; and
- iii. that people must be encouraged to develop entirely new ideas, products, processes and methods through creative approaches.

According to Fagerlind and Saha, (1997) human capital theory provides a basic justification for large public expenditure on education both in developing and developed nations. The theory was consistent with the ideologies of democracy and liberal progression found in most Western societies. Its appeal was based upon the presumed economic return of investment in education both at the macro and micro levels. Efforts to promote investment in human capital were seen to result in rapid economic growth for society. For individuals, such investment was seen to provide returns in the form of individual economic success and achievement.

Most economists agree that it is human resources of nation, not its capital nor its material resources, that ultimately determine the character and pace of its economic and social development. Psacharopoulos and Woodhall (1997) asserts that:

*Human resources constitute the ultimate basis of wealth of nations. Capital and natural resources are passive factors of production, human beings are the active agencies who accumulate capital, exploit natural resources, build social, economic and political organization, and carry forward national development. P. 102.*

## Empirical Evidence of Human Capital Model

The importance of education and human capital has been brought out in many studies of economic growth and development. Robert (1991) developed a human capital model which shows that education and the creation of human capital was responsible for both the differences in labour productivity and the differences in overall levels of technology that we observe in the world. More than anything else, it has been the spectacular growth in East Asia that has given education and human capital their current popularity in the field of economic growth and development. Countries such as Hong Kong, Korea, Singapore, and Taiwan have achieved unprecedented rates of economic growth while making large investments in education. In the statistical analysis that accompanied his study, the World Bank (1993)

found that improvement in education is a very significant explanatory variable for East Asian economic growth.

There are several ways of modeling how the huge expansion of education accelerated economic growth and development. The first is to view education as an investment in human capital. A different view of the role of education in the economic success is that education has positive externalities. "Educate part of the community and the whole of it benefits,".

The idea that education generates positive externalities is by no means new. Many of the classical economists argued strongly for government's active support of education on the grounds of the positive externalities that society would gain from a more educated labour force and populace. (Van-Den-Berg 2001). Smith (1976) reflects such progressive contemporary thought when he wrote that by educating its people, a society:

*derives no inconsiderable advantage from their instruction. The more they are instructed, the less liable they are to the delusions of enthusiasm and superstition, which, among ignorant nations, frequently occasion the most dreadful disorders. An instructed and intelligent people besides, are always more decent and orderly than an ignorant and stupid ones. P 68.*

Smith views the externalities to education as important to the proper functioning not only of the economy but of a democratic society.

Another way of modeling the role of education in the growth and development process is to view human capital as a critical input for innovations, research and development activities. From this perspective, education is seen as an intentional effort to increase the resources needed for creating new ideas, and thus, any increase in education will directly accelerate technological progress. This modeling approach usually adopts the Schumpeter (1973) assumptions of imperfectly competitive product markets and competitive innovation, which permit the process of generating technological progress. Education is seen as an input into the intentional and entrepreneurial efforts to create new technology and new products. Proponents of this view of education point out the close correlation between new product development and levels of education. The countries that are at the forefront of technology also have the most educated population (Van-Den-Berg 2001).

The review of empirical tests of the theory by Garba (2002) shows that cross-country regressions have shown positive correlation between educational attainment and economic growth and development. Odekunle (2001) affirms that investment in human capital has positive effects on the supply of entrepreneurial activity and technological innovation. Ayeni (2003) asserts that education as an investment has future benefits of creation of status, job security and other benefits in cash and in kind.

However, Ayara (2002) reports that education has not had the expected positive growth impact on economic growth in Nigeria. Hence, he proposes three possibilities that could account for such results, which are:

- (i) Educational capital has gone into privately remunerative but socially unproductive activities; or
- (ii) There has been slow growth in the demand for educated labour; or
- (iii) The education system has failed, such that schooling provides few (or no) skills.

### **Application of Human Capital Theory to Educational System**

Babalola (2003) asserts that the contribution of education to economic growth and development occurs through its ability to increase the productivity of an existing labour force in various ways. However, economic evaluation of educational investment projects should take into account certain criteria according to Psacharopoulos and Woodhall (1997) which are:

- Direct economic returns to investment, in terms of the balance between the opportunity costs of resources and the expected future benefits;
- Indirect economic returns, in terms of external benefits affecting other members of society;

- The private demand for education and other factors determining individual demand for education;
- The geographical and social distribution of educational opportunities; and,
- The distribution of financial benefits and burdens of education.

Education plays a great and significant role in the economy of a nation, thus educational expenditures are found to constitute a form of investment. This augments individual's human capital and leads to greater output for society and enhanced earnings for the individual worker. It increases their chances of employment in the labour market, and allows them to reap pecuniary and non-pecuniary returns and gives them opportunities for job mobility.

Education is a source of economic growth and development only if it is anti-traditional to the extent that it liberates, stimulates and informs the individual and teaches him how and why to make demands upon himself. Accordingly, a proper educational strategy would manifest itself in four major development-producing capacities. According to Bronchi (2003) the first is the development of a general trend favourable to economic progress. The reference is to social mobility, a general increase in literacy necessary for improved communication.

The second capacity emphasizes the development of complementary resources for factors which are relatively plenty and substitutes for relatively scarce factors. That is, educated people would be more adaptable to varying production needs. The third capacity underscores the durability of educational investment. He argues that education has greater durability than most forms of non-human reproductive capital, which implies that a given investment in education tends to be more productive, other things being equal, than some outlay on non-human capital. Finally, education is an alternative to consumption, for it transfers to round-about production the resources that would otherwise be consumed now.

### **Sensitivity of Human Capital Theory**

The main problem associated with the belief that education is good for economic growth and development according to Babalola (2003) concerns how to maintain an equilibrium position. That is, where there will be no evidence of either shortage or surplus supply of educated people. A shortage of educated people might limit growth, while excess supply of it might create unemployment and thus limit economic growth and development.

The theory has been criticized on several grounds. At the individual level, it has become controversial whether or to what extent education or other forms of human investments are directly related to improvement in occupation and income. Bronchi (2003) asserts that raising the level of education in a society can under certain instances increase the inequalities in income distribution.

Fagerlind and Saha (1997) assert that while governments may adopt educational plans consistent with specific development goals and strategies, they can only be partially certain that outcomes of these will correspond to original intentions; the more political the goals of education, the more problematic the outcomes. In light of this, to view education as a panacea for the attainment of development objectives is risky. Thus, education in general and schooling in particular, cannot of its own achieve the desired societal goals without structural reforms.

Another major problem in the application of the theory is its failure to account for a growing gap between people's increasing learning efforts and knowledge base and the diminishing number of commensurate jobs to apply their increasing knowledge investment, especially in developing nations. To this, some advocates of the theory (Bronchi, 2003, Castronova 2002, Crepaz and Moser 2004) assert that these great increases in learning efforts have not led to commensurate economic gains because of the declining quality of education, lopsided and politically motivated system of education.

## **Implications of Human Capital Theory for Educational Development**

The central difference in the policy implications of the human capital model and the alternative models relates to the desirable level of public expenditure on education. The basic implication of the human capital model is that allocation of resources on education should be expanded to the point where the present value of the streams of returns to marginal investment is equal or greater than the marginal costs.

Many of the developing nations have thus realized that the principal mechanism for developing human knowledge is the education system. Thus, they invest huge sum of money on education not only as an attempt to impart knowledge and skills to individuals but also to impart values, ideas, attitudes and aspirations which may be in the nation's best developmental interest.

In addition to manpower planning needs, parents strongly feel that in an era of scarce skilled manpower, the better the education their children can get, the better are their chances of getting well-paid jobs. The poor often look at their children's education as the best means of escaping poverty. The concept of human resources has provided a useful bridge between the theoretical concerns of students of the developmental process and the practical requirements of assistance to planners.

Irrespective of the explanation given for global educational expansion, the consequences of this expansion for social systems can be problematic. The tensions and strains of educational expansion can impede economic, social and political development. For example, the accelerated costs of expanding educational system compete with other sectors of the respective societies for finite resources. As mass primary education is attained, expansion shifts to the secondary and tertiary levels as these too are gradually transformed into mass systems. At the same time, the increase in costs is not arithmetic but geometric. These pressure ultimately create dilemma for government who must realistically assess and determine spending priorities for scarce economic resources.

Adopting a position based on the assumptions of the human capital and modernization theorists, Fagerlind and Saha (1997) argue that in developing countries at least, educational demand must be tempered in order to bring costs and benefits to more realistic levels.

Among the suggestions they made are that:

- The costs of education should be borne by the beneficiary or recipient by means of family assistance or self-help schemes rather than solely the state;
- The income differential between the traditional and modern sectors should be reduced, which in effect lowers the benefits according to the educational attainments;
- The educational requirements for particular jobs should not be exaggerated; and
- The wage structure should be tied to occupational and requirements rather than educational attainments.

It is also worth noting that the causal relationship between education and earnings has important implications for public policy. If human capital theorists are correct in arguing that education is the primary cause of higher earnings, then it obviously makes sense to provide more education to low-income groups of society to reduce poverty and the degree of income inequality.

This analysis suggests that the primary focus of subsidies to education should be on ensuring that all those who can benefit from, have access to appropriate opportunities, rather than on reducing costs incurred by those who would undertake higher education in any case.

## **Conclusion and Recommendations**

Nigeria is confronted by most of the problems that could limit the capacity of expansion in education to stimulate growth and development such as under-employment, low absorptive capacity, shortage of professionals, regional imbalances and brain-drain. The persistence of many of the problems in spite of the various policy formulation and responses points to the need for a more focused, responsive, functional and qualitative educational system. To contribute significantly to economic growth and development, education must be of high quality and also meet the skill-demand needs of the economy.

It is not a noble achievement for any sector of the economy to exist for years only to make a negligible contribution to economic growth, which is not commensurate with its life span and investment. In this case, there is the need for more commitment by the authorities not to interfere with decisions such as curriculum or teachers' responsibilities. Parents should not wish to fulfil their life expectations in their children by selecting careers for them or by suggesting subjects that they should study. They should not also encourage or assist their children and wards to purchase certificates. Government, in its employment policies, should lay more emphasis on specialization and competence rather than paper qualification and ill-gotten certificates.

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