

EDUCATION AND HUMAN CAPITAL AS ENGINES FOR ECONOMIC GROWTH. A LITERATURE REVIEW

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Abstract: *The paper approaches some key issues regarding the concept of education and human capital and their role in promoting economic growth and development and empowering people. Education is widely considered as not a cost but a real and effective investment. Human capital, as part but also as a result of the education system, has to be connected to the labor market reality and requirements, so that the nowadays education could be effective for tomorrow's economy. It is necessary to form an active labor force, involved in the promotion of the economic growth, ensuring financial remuneration according to the work performed, welfare, consumption, taxes due to the state etc. Education is seen as the most cost-effective investment in people, which transforms the individuals and the society, but also contributes to the economic system of a state, through its role to ensure labour force. Education is the product of many actors involved, jointly acting, such as family, social environment, school, church, cultural institutions, media and associative structures. Most of all, education must be a conceptual framework of each of us as a constant desire to become more educate. Education has no borders, no barriers to overcome at the informational level. It must be acquired, supported and constantly assessed to become increasingly competitive. Intellectual human capital within the education system is an integral part of economic heritage. It can lead, through the value of work performed, to economic growth. Regarding the frame of the relationship between education development and economic growth, the starting point could be identifying the appropriate or inappropriate workforce for specific economic activity, the actors can contribute to economic growth through their subsequent training in the education system, correlating the individual productive capacity with existing market capacity.*

Keywords: education, investment, economic growth, productive human capital

JEL Code: A11; I25; O15.

1. Introduction

Education effectively take part in the process of shaping individuals who want to be part of a system of education or another. It is a mindset, a way by which the trained man will perceive some problematic issues he faces in his daily work more efficient, in addition education expands horizons of thinking upon everything surrounding us. Therefore it is considered that, education is part of every individual, through its their culture, way of expression, thinking and, last but not least, its behavior in the social environment. Education cannot be more than the individual desire to manifest in a certain form of study. Joan Amos Comenius in „Didactica magna” considered that at birth, nature endows the child only with „the seed of science, morality and religiosity”, they become the property of every man only through education. Thus, in his view „education is a stimulating activity of those „seeds” and implicitly running the process of humanization, man „cannot become human unless he is educated” (Stanciu, 1977 p.65). Education as a source of human capital, help to a potential opportunity of work commitments among individuals who are educated to find each other more quickly on labour market. Education is a dynamic domain which depends making and achieve objectives affected by a number of factors:

economic, demographic, sociocultural and so on. Therefore, the education has no borders, no evetaking barriers in informational plan, just have claimed more efficient for training human capital to have economic benefits after activites performed by each individual. Education plays an important role in human capital formation by providing an extra chance for every person to find themselves in a job. Education is a continous training of indiduals for life, which is achieved as to whether or not want around each of us simply because we interact us. It can be said that each person is the teacher for another person, in society, at a given moment in time. The form of education varies from individual to individual, through the process of transmission and reception of information. Education must be a continuous desire both person and government to manifest as a permanent action to develop human capital. Regarding education as a form of state investment, particularly percentage of GDP differs from state to state, no one can certify what should be the percentage allocated to education, so as to bring economic growth and development. But certainly increasing yhe percentage of GDP for education it must bring actually with the improving quality of education act.

2. What is education?

Emil Durkheim defined education, "as an influence from adults on those who are not ready for social life, with the aim to form their mental, moral and physical abilities corresponding to the requirements of society" (Durkheim, 1980, p.45). Roman Herzog (1997), former President of FRG, considered "education is the key to labor market and still the best prevention against unemployment". For UNESCO education is understood to involve organized and sustained communication designed to bring about learning (UNESCO, 1997). However, education could be defined as the personal project which should reflect the individual's desire to educate. Where there is no willingness towards the educational project, the responsible factors from the social environment must identify the cause that determined the individual to not educate. Training a man supposedly involves an educational base, acquired and evaluated by the society where he manifests as social interest to be an eternal and vivid imprint. Education is seen as the most cost-effective investment in human, which transforms the individual, society, and contribute to the economic system of a state by his work. It should be a concern of the whole society by the optimal use of its human and material resources available, but also beneficial at a certain point.

Table no.1. Synopsis of several approaches on education

Concepts on education	Authors
Education is a complex activity for the formation of a man prepared to meet the practical requirements of society and enhancing personal profit.	Locke (1962)
Education is a continuous reconstruction of experience which adds to the meaning of previous experience and ensures the development of the following one.	Dewey (1972)
Education can contribute to the „world reconstruction"	Montessori (1973)
Education is the conscious activity to influence the human through a triple action of care, cultivation and guidance towards compliance with the cultural values and individual awareness to them.	Bârsănescu (1975)
Education as an influence from adults on those who are not yet prepared for social life, with the aim to form their mental capacity, moral and physical adequate to society requirements.	Durkheim (1980)
To educate means transformation of psychological consciousness of the	

individual related to the collective relations as a whole common conscience which assigns a common value.	Piaget (1980), (2005)
Education is a systematic activity exercised by adults on children and adolescents in order to prepare for a full life, in a determined environment.	Planchard (1992)
Education is a complex social activity that is performed by an endless chain of actions exercised consciously, systematically and organized in order to form an active and creative personality, to meet the social and historical present conditions.	Nicola (1993)
Education is the key to the labor market, and it remains the best protection against unemployment. It keeps the mechanism of social mobility up and running and thus keeps our open society moving.	Herzog (1997)
Education is a psychosocial activity with general function of training - ongoing development of the human personality for optimal social integration (...).	Cristea (2000)
Education, as a project, but also real phenomenon relates to temporal coordinates and involves a succession in time (...).	Cucoş (2006)
Education is natural development, progressive and systematic.	Pestalozzi, apud Panțuru (2008)
Education is help for life, stimulates intelligence, cultivates freedom and initiative of children.	Montessori (apud Panțuru, 2008)
Education is the action exerted by the adult generations on those who are not yet mature for social life.	Durkheim (apud Panțuru, 2008)
education and skills are 'growth-enhancing items' , "better educational levels help employability and progress in increasing the employment rate helps to reduce poverty"	Europa 2020 Strategy (2010)
the active learning process, founded on values of solidarity, equality, inclusion and cooperation (...)	CONCORD (2011)

3. The economic value of education

The labour product of an educator is reflected on training of human resources within the institutional environment, to be useful to social and economic environment at a certain time. Education as an economic value must be the best supported asset by allocating the necessary financial resources to education system. Economic development is a sequence of activities that fulfill macroeconomic requirements on basis of transformations, economic changes where the role of education is vital considering the human factor that we have, subject to the process of formation of individuals aiming at the market work force opportunities. Consequently, the economic development of a country requires schools educating labor force, for both sides of educational approach: the theoretical, but also, more defined, the practical one.

All countries of the modern world are seeking economic growth and development, we are in a constant competition in the world on economic growth because it enables people to consume more goods and services that lead both to the welfare of the population and economic growth. Each state develops its own strategies for economic growth and development, where investment in education is a national, strategic-investment priority, which can not be achieved just through financial and theoretical support, but rather by allocating a substantial percentage of the GDP for supporting education. Therefore, as Jacques Delors states, who, between 1992-1996, was president of the International Commission for Education in the XXI century (...) "education systems must educate in an innovative spirit, to promote capacity development, adapting to a world in rapid change,

each individual being able to assimilate”(Delors,2000,p.55). The economic growth of a country depends on human development by enhancing education level, reducing poverty and set individuals on social level, issues that can be achieved through the investment in education. Any economic growth is conditioned by the development of human capital, which is the most valuable heritage of a country. And not least is should be recalled the Europe 2020 strategy, the most important strategic document released by the European Commission for the next decade, defines education as „a priority needed to support the EU's economic growth potential and the states sustainability.

To support the EU's economic growth potential and the sustainability of our social models, the consolidation of public finances in the context of the Stability and Growth Pact involves setting some priorities (...). The structure and quality of public spending is also important: budgetary consolidation programs should give priority to „growth-enhancing fields” such as education and skills, research, development and innovation (...)”(European Commission, 2020 - (2010).Thus, it should be taken into account the statement of Androulla Vassiliou, Commissioner for Education, Culture, Multilingualism and Youth,, reorganization of education is not just a question of money: though it is true that we must invest more in education and training, it is clear that educational systems must be modernized and equipped with a more flexible operating mode to meet the real needs of contemporary society (European Commission, 2012).

Europe will return to sustained growth only through the formation of highly qualified and adaptable professionals who can contribute to innovation and entrepreneurship. Making efficient and well-targeted investment is essential in this regard, but we will not meet the objectives by reducing budgets for education”. The new strategy involves a complete change of education systems, which will focus on the outcome of learning, such as knowledge, skills and abilities acquired by students. It was found that the mere presence in education is not enough and that's why is needed to improve reading, writing, arithmetic; entrepreneurial skills should be developed or strengthened, and not least the spirit of initiative. Moreover, entrepreneurship education should be a permanent concern of education institutions, and it should be focused and oriented in order to create effective abilities among young people to create and develop their own ventures, to be considered as a real alternative to employment (Badulescu, Daniel and Badulescu, Alina, 2014; Badulescu, Daniel and Vancea, Mariana, 2013). From the Europe 2010 Agenda, it could be mentioned: encouraging the development of elementary and transversal skills at all levels; a new criterion for learning foreign languages in 2020 - 50% of youth of 15 year old must know a foreign language, compared to 42% today, and 75% to study a second foreign language compared to 61% currently; The need of investment for the creation of vocational education and training systems globally, and to increase levels of learning in a professional environment; improving recognition of qualifications and competences across all Member States, even those obtained outside the official system of education and training; Technology valorification, especially the Internet; Reforms of the education system to be supported by trained teachers, motivated and enterprising; Debate issue of funding education so as funding to maximize the return on investment; Adopting a partnership approach to stimulating innovation and favor exchanges between academic environment and enterprises (European Commission, 2010).

4. What is human capital?

In terms of common knowledge *capital* means financial resources (money in the bank account) or assets business's assets needed to generate incomes and useful result over a long period of time. Gradually, the understanding of the concept of capital overcome these concrete forms and began to be referred also to the labor force, as a set of skills that workers can get a variety of results By default this means it can be correctly interpreted as an investment. Thus, human capital refers to a stock of skills, knowledge, creativity, social and personality attributes, qualification of a worker (innate or acquired) that contribute to

its productivity and ability to produce economic value. Human capital is an intangible asset; it is not owned by the company employing the workers, but rather leases these skills from the employees. However, it is obvious that businesses can get better results if they invest in education (qualification) of this asset even that, formally, they do not own it.

Each stage of the economic thought from the occurrence of theories on human capital until nowadays takes on new forms of expression, but one of the forms accepted but which can be modified related to new trends of economic thinking and accepted is given by OECD and defines human capital as, 1), „stock of professional knowledge, skills and health habits that can lead a person to increase his creative capacities and hence the revenue expected to be obtained in the future; 2) the ability of people to produce goods and services efficiently”(Enache et al 2001.p.82).

There are three main approaches on human capital (Kwon, 2009): The first viewpoint is based on the individual aspects, “something akin to property” (Schultz, 1965), as a contradiction of labor force understanding in the classical perspective. The second view human capital in itself, as a process of accumulation, stressing on knowledge and skills obtained throughout educational activities). Finally, the third approach is closely related to the business-oriented perspective, Human capital appears to be a combination of factors (as education, experience, the accumulation of information, training, availability and effort, work habits, trust, initiative) which influence the value of the marginal product of a worker, or a stock of skills and knowledge applied to the work capacity in order to produce economic value.

Studies show that countries investing more in human capital (education, research, health) are those experiencing the most significant economic performance (Mursa and Ignat, 2009,p.10). People can be a resource of work, and they must be supported by some form of education so that every individual become a human capital. Long-term economic development can be achieved only through a thorough investment in human resources, those resources that are integral part of human capital. Human capital consists of the skills of the individuals who are their characteristics and remain the same in any social environment, which can be exploited in the labor market in exchange for economic resources of any kind. (Becker,1999,p.109). Human capital as an economic concept is the ability of individuals which can be exploited in the labor market to produce at one time income through work, thus calling him an economic productive person, socially and individually.

Human capital has developed as a concept in economics, where it is regarded in particular as „an estimate of a person's ability to produce income through work” Human capital is a estimation of the ability of a person to produce labor income. (Annamaria Di Bartolo,1999,). The formation of human capital education knows two distinct forms: through a form of active participation to systems of formal education, on which some certificates, diplomas are acquired or any other knowledge skills and abilities learned during life, by his own efforts but also through contacts the individuals have among them in the social environment. One of the possible questions as distinct form of education human capital on the importance in the economic environment would be: What is the most beneficial form of acquired knowledge of an individual? The formal one within the education system? Or informal acquired during life?Opinions can be multiple, divided, but surely the two forms of training of human capital complement each other to some extent. A possible alternative answer would be: Any information of assimilated capital, both within the educational environment and the everyday life, may be much better understood if in the education system the two forms are performed simultaneously. Or the informal variant of human capital can be much better utilized throughout life by participating in some training through the education system which will certainly lead to a more experienced human capital in various fields.

Between the two distinct categories of human capital formation, in the foreground must be a continue desire to improve which has to be measurable in economic terms. Thus, the

work done is beneficial both to individual as remuneration and the economic environment known through the economic development and further growth. The father of political economy, the famous economist Adam Smith said that „the work of a craftsman in a manufacture is added usually to the value of the materials on which he works, his own support and his employer's profit (Smith, 2011, p.183). Based on the concept of Adam Smith, the work of an educator can not be better than the desire of the learner whom he is trying to shape on his own way. Education as a government project must provide some stable legislation, for all the actors who are part of it. In 1947 Maria Montessori addressed a letter to all governments, for an educational planning for over 40 years, considering that in a child it can discover the force that is capable of creating the human being as an adult „if education is to be reformed, it must be based on children " (Montessori, 1996 p.4). In short, those children who are tomorrow's pupils, students and on long factors of economic support.

5. Education – human capital – economic growth: a complex relation

Economic theory asserts that human capital is an important determinant of economic growth. This hypothesis is confirmed by an impressive number of researches, conducted on different, broad and diverse groups of countries. Countries that achieve a higher level of education of their citizens fail to have a higher growth rate than the average, at least during certain periods and under certain political conditions. The research also shows that this growth is not continuous or permanent, and the contribution of human capital to economic growth is essentially linked to the measures taken in the field of education (theoretical and vocational), in particular by ensuring a high rate of inclusion, by measuring the quantity and quality of scholar inputs, by regular contact with the society and business environment requirements.

Economic development is a succession of activities of macro economic requirements under transformation, economic changes where education is essential considering the human factor. Therefore it is considered that the economic development of a country is related with educational institutions, with new requirements of the labor force, needed to respond to diverse economic requirements. All modern world countries stress on economic growth and development, all are in a constant global competition. For them economic growth is a way to enables people to consume more goods and services, as a simple manner of understanding human welfare. Each state develops its own strategy for economic growth and development, where investment in education becomes a national priority of strategic-investment. Investing in human capital is .., any activity designed to ensure an increase in the productive qualities of the human factor..."(McConnell, C.R., Brue, S.L.1988, p.77).

The economic growth of a country depends on human development by enhancing the education level, reducing poverty and positioning individuals on the social level that can be achieved through investment in education. Any economic growth is conditioned by the development of human capital, which is the most valued heritage of a country. An educated nation is more important than any natural resource that a nation can have. Yje individual competence is not a natural endowment, or an innate characteristic, it must be gained by practical information acquired at the workplace and by theory within the system education.

6. The investment in education

Acording to Theodore W. Schultz, „the investment in human resources, prior to investments in equipment, infrastructure and other goods, is the best development strategy for both rich countries and especially for poor countries" (Schultz, 1965, p.515). Gary S. Becher consider „by establishing the human capital as a key element in socio-economic analysis, he has proven the productivity of this approach from scientific and public policy

point of view. Extension of microeconomics field analyzed to a wide range of human behavior and interaction, including the behavior related to education led to the conclusion that learning outcomes and education in general have features of capital and investment: „Therefore, human capital and tangible capital appear as different only in terms of temporal pattern of impairment and not by their essence” (Becker, 1962, p.6). Mursa and Ignat state that „investment in education must be considered in terms of costs and benefits”(Mursa, Ignat, 2009, p.28), depending on the economic policies of the governments on medium and long term, and various random factors in the lives of people. Knowing the benefits and costs of investment in human capital, to take a rational decision from economic aspect, the cost-benefit analysis method is applied. By analogy with investment in physical capital, investment in human capital requires expenses. In this regard, G. Becker makes a clear distinction between human capital and physical or financial capital: „Tuition, a practice course in computers, the figure on the health care and training on virtues of punctuality and honesty represent also a capital in the sense that they improve health, increase earnings or increase a person appreciation in her lifetime. Therefore, it is in full harmony with the concept of capital, as it was traditionally defined, so that to say that figures on education, tuition, medical care etc. are capital investments. However, they produce human capital and not a physical or financial one, because one can not separate a person from knowledge, health or her values as it is possible to move financial and physical capital while their owners are not personally involved” (Becker, 1999, p.109). Education, using new methods for individual development, develop the human capital directly.

The training and continuous improvement of human capital is a shared, tripartite, responsibility that bring under the same objective the governments - through their policies and institutions of vocational education and training), individuals -through their availability and interest in learning and training, and the economic environment and businesses -by understanding and stimulating opportunities obtaining from employees with a high level of instruction (Lamotte, 2012).

Thus, we conclude that science and education serve to clarify the differences between consumption and production capacity, having a decisive role in economic and organizational mechanism of the reproductive cycle of human capital. „Education, regarded as a fundamental category of social and human sciences study was defined in different ways, but two alternative approaches are distinguished, namely the individual and the society, thus, anthropocentric and sociocentric approach” (Cojocaru, Făuraș, 2006,p.8).

Conclusion

In previous sections, we described the importance of education as an economic reference framework, having an important role in the training of individuals through the education system, which is part of human capital, as an inexhaustible source, but it needs higher financial support taking into account the economic trend and technical-technological process which every employee has to deal with. Each individual develops human capital by daily experiences, but the development of human capital through one or another form of education will lead to an aspect the individual himself will have to admit that the most beneficial improvement is through education. Any form of individual improvement automatically leads to formation of own human capital, where one can benefit from additional earnings, respectively, in terms of economic aspect it will automatically lead to economic development of the country. I therefore consider that the formation of an individual in education can be beneficial at any time during his life, taking into account the trend of technological and economic development respectively, market needs of labor force that require new professional skills, man has a chance to adapt himself or even to affirm in several fields. Viewed under economic aspect of amounts allocated as a

percentage of GDP, where we note that investment in education is one below the EU average, human capital formation becomes a personal and governmental responsibility to be regarded as a future economic objective.

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