**Development of Human Capital Throught Education in Present Day Economy**

**Maria Macris** (Corresponding Author)  
Ph.D Lecturer,  
Department of Economic Sciences  
University of Petrosani, 20, Universitatii Street, postal code: 332006, Romania  
E-mail: mariamacris2011@yahoo.com

**Mariana Man, Ph.D Professor**  
Department of Economic Sciences  
University of Petrosani, 20, Universitatii Street, postal code: 332006, Romania  
E-mail: mariamacris2011@yahoo.com

**ABSTRACT**

The scientific approach of the hereby paper displays considerations upon human capital having a special importance on economic growth. The main objective of the hereby study is the emphasizing of the part played by education in the process of determining the value of human capital and of the efficiency of public expenditures materialized in education investments at a social level as well as at an individual level. These aspects have been approached both by foreign specialized works and by Romanian studies that have considered the case of Romania regarding the country's contribution to the development of human capital.

**Keywords:** Education, human capital, education investment, intellectual capital.

**1. INTRODUCTION**

In present-day economy, human capital and education start with the assessment of the stage of knowledge specific to their field of research. At the same time, investments in education and in the training of employees are by far as important as investments in patrimony. They represent one of the essential foundations of the hereby research. The economy we live in relies more and more upon information while technology and production methods rapidly and constantly change.

The training of human capital should be approached according to a thorough method similar to the one which forms physical capital while education reform should strive to consequently consider the previous one. The objective of public policies, whether they deal with education reform, sanitary system or fiscal system reforms, is the improvement of human beings’ lives. And the debates and fundamental proposals regarding education reform have tended to ignore the essential part played by people so far. Most experts in education seem to forget that people are productive not only due to our social and economic system or due to the characteristics of the technologies they employ, but also due to the education and training they use while working. It is quite obvious that education reform should be directed towards the notion economists call “capital training” – although the training of human capital is sometimes forgotten. Researches in the field of human capital have focused both upon the concept and measuring of the investments into human capital and upon the connection existing between such investments and economic growth.

**2. HUMAN CAPITAL – THEORETICAL APPROACHES**

Defined according to a widening meaning, capital represents no matter what means at the disposal of human beings employed with a view of increasing individual welfare. The
meaning includes equipments, lands, vehicles, buildings as well as raw materials or the means that facilitate exchange, etc. In time, capital was given the previously mentioned meaning by the founders and specialists of economic science. Despite the fact that the production of goods and services has been attributed to interested human actions, economists have taken into consideration human capacities as part of the capital quite late. Nevertheless, the fifth decade of the nineteenth century witnessed the definitive inclusion of human resources within capital owing to the pioneering researches of a school affiliated to the University of Chicago. Since then, the term human capital has entered the current vocabulary of academic world or the linguistic field of common people due to the accurate and ingenious researches of G. Becker (Nobel Prize in 1992), J. Mincer or Theodore Schultz (Nobel Prize in 1979). The standards of scientific accuracy compel us not to forget that the originary meaning of the famous sintagm finds its roots in the works of A. Smith. He was the pioneer of the field mentioning among the elements of capital the abilities and “useful” knowledge of human beings. Attempting at grasping the “nature and causes of nations’ wealth”, the brilliant Scottish thinker included within capital “the acquired and useful capacities of all the inhabitants or members of a society” perceived as “retrieved expenditures that, nevertheless, include a profit” (Smith 1962).

The attitude of the father of economic science is comprehensible in case one remembers that he had been thinking and writing under the influence of the philosophical ideas of Illuminism that attempted at reinstaurating confidence into human being seen as a supreme value. Despite the new manner of approach, the economists that followed Smith neglected the study of this particular type of capital considering that equipments, lands, buildings and the corresponding investments are those which decisively contribute to the increase of the production of goods and services. Economic science required almost two centuries in order to return to the Smithian remark according to which investments in the knowledge and aptitudes of individuals determine profit and directly take part in the welfare of a nation. Researchers have paid an increasing attention to human beings’ economic dowry since the middle of the nineteenth century. Such a preoccupation determined a rapid increase of the number of studies to be analyzed and critically considered (Becker 1997).

The suggestions regarding the economic performance of human capacities are not entirely originated in the so-called school of human capital but also in other areas of the “science of choices”. Being determined to discover the legitimate responsibilities governments have in connection with education, M. Friedman notices that investments in human capital (similar to the expenditures for the improvement of non-human capital) determine an increase of work. Moreover, he considers that the high rates of profit in education show the sub-investment of the field (Friedman 1995). The researches published and displaying such facts are not limited to motivating the expenditures made in order to improve knowledge, abilities, talents or skills, but also exhibit stronger arguments in favour of capitalizing human beings. Accordingly, G. Becker (1994) shows that rassist discrimination cannot be supported, not even economically. Th. Sowell provides economic arguments against slavery stating – through developing Montesquieu’s conceptions - that slavery proves to be non-performant when compared with liberty (Sowell 1975). Beyond the aspects previously displayed, let’s mention that researchers studied human capital more attentively during a period when the issue of resources penury began to be felt through envisaged food crises, petrol (1970s) or raw materials crises.

The continual increase of population and the extended exploitation of resources have shifted the focus upon the issue of the “limits of growth”; it has compelled economic theory to deliver new answers or solutions that concern the future of mankind. The economists have then become aware, more than ever, of the fact that the stress should change from the extensive exploitation of natural resources towards their intensive use; and, in fact, the new approach emphasizes intelligence, skills, aptitudes, talents, and knowledge, in other words human capital. They have understand that human capital is, by far, the most important and exploitable resource at hand. Since then, the process of wealth foundation emphasizes human capacities and the growth of their efficiency. As in case of common capital, efficiency in allocating rare resources originates in investments made with a view of getting certain effects which are largely improved in quantity and quality. The efforts that have been carried out show that “education and professional training are the most important
*Investments in human capital* (Becker 1994), but they are not the only ones. It is quite clear that “investments in human beings” (Schultz and Letiche 1981), may also represent the amount of resources required in order to provide a normal alimentary regime or funds allocated in order to provide a good health condition. Such investments also may represent the determination to protect environment and, on principle, all activities that can improve life quality; nevertheless, the fundamental element of all these is undoubtedly represented by those resources invested in education and research.

The numberless researches that have been published during the last decades precisely show the positive correlation between the increase of welfare and investments in human capital. K. Murphy, R. Tamura, N. Tomes, and J. Mincer are only a few of those who have succeeded in showing through empirical proofs that the differentiation of individuals’ incomes is originated, to a large extent, in the degree of their qualification and complexity of their education. They have given us concrete evidence that the efforts determined by the educational leap (elementary, secondary, college, and higher education) are increasingly compensated according to the length of the period of education and training. Statistic data confirms the superiority of the incomes of those who possess university diplomas as compared with those who possess other degrees of qualification. Even the conclusions given by analyses on Romanian economy show that there is a positive relation between the level of education and the amount of incomes; at the same time, the same figures undoubtedly show that the same type of relation manifests between the level of labor employment and the length of education (that is, the amount of investments in human capital). The analyses of Romanian labor market display the fact that the individuals possessing a poorer education are most affected by unemployment while the persons possessing university degrees suffer to a smaller extent from such a phenomenon. These results determine us to consider one of Becker’s conclusions according to which the differentiation of incomes depending on education investment manifests itself irrespective of the degree of development of the economic system considered. They may be stressed by one of Samuelson’s remarks that explains the high rate of unemployment among black young persons in the United States owing to the poor qualifications they possess (Samuelson and Nordhaus 1990). Romanian statistics also emphasize the fact that more than one half of the management jobs in Romanian society are detained by higher education individuals; the share of each level of training decreases according to the descending path towards a college or a secondary education level, etc.

The organizations that hire employees possessing a higher intellectual capital are going to get important incomes during a long period. One may notice, day by day, the tenacious struggle the small and the big investors carry in order to attract to their own team a highly qualified and educated staff that is capable to meet the future requirements and exigencies of economy and society. When such a type of organization becomes a mass phenomenon, society is going to witness a more vigorous development rhythm. Human capital consists in those abilities of the individuals which represent their inner characteristics, are similar in all social environments, and may be capitalized on the labor market in exchange of certain economic resources irrespective of their type. In fact, human capital includes educational capital (abilities acquired by individuals during the process of learning and outside this process) and biological capital (physical abilities of the individuals). Human capital has developed as a concept in economy where it is considered as the “*estimation of the ability of a person to produce incomes through labor*” (Di Bartolo 1999).

Kiker (1966) sets forth a few motivations that determined, before the 1960s, the perspective of a human being as capital that targeted the following: demonstration of the power of a nation; determination of the economic effects of education, investments in health and migration; proposals regarding more equitable tax systems than the existing ones; determination of the total cost of war (in evaluating war losses after the two world conflicts); warning population as to the need of preserving life and health in order to emphasize the importance of individuals’ lives for the economy of the country they live in; support for settling the compensations decided by courts in case of death or accident.
3. HUMAN CAPITAL AND ITS DEVELOPMENT THROUGH EDUCATION

The evolution of society displays an era of knowledge towards which humankind as well as business environment, the entire economy, the educational system, etc. aspire. The central position is detained by information which is the origin of intellectual capital. Intellectual capital is the currency of the new millennium. The wise employment of intellectual capital represents the key of success in the era of knowledge. Accordingly, it can be seen as a hidden value of an organization which until recently could not be quantified.

The notion of intellectual capital came out in the business world in the 1990s. There are two independent manners of thinking that consider intellectual capital; nevertheless, one may notice that there is a certain connection between them. One manner refers to information, the power of mind focusing on creation and enlarging knowledge from inside the company; the other manner relies on resources and targets the getting of profits out of the unique combinations of intellectual capital and corporal resources. The society of the third millennium possesses employees that are valuable due to their knowledge. Intellectual capital is the term given to combined intangible assets that allow the company to function efficiently.

The components of intellectual capital are the following ones:

- **Market assets** - are those that derive from a beneficial relation of the organization with the market and the customers. Examples may include: the customers and their degree of loyalty, distribution channels, various contracts and agreements, etc.

- **Assets that rely on intellectual property** - are those which include how-to, commercialization secrets, copyright, patents or other rights.

- **Assets centered on human resources** – that refer to ability and creativity in settling issues as well as to the leadership, antrepreneurship and managership skills the employees of an organization possess.

- **Assets specific to infrastructure** – refer to those technologies, methods and processes that allow an organization to carry out its activity efficiently on a long term. Consequently, organizational culture should consider creation, innovation, transfer, and the re-employment of data and knowledge in order to maximize its profit given by the intellectual capital.

The quantification of intellectual capital has become a main field of research both for practitioners and researchers since the 1990s. According to Professor Nick Bontis, manager of the Institute of Research of Intellectual capital, there are four important systems of quantification that are employed by practitioners at present:

- **Budgeting human resources**. The objective of the method attempts at quantifying the economic value of the people within an organization with a view of using it in the process of taking management and financial decisions. Researchers have proposed three types of such methods of quantification: costs model, the model of the values of human resources and the monetary model. All these models tend to be subjective and uncertain as they do not meet the required trust due to the fact that measurements cannot be tested according to a high degree of certitude.

- **Added economic value**. The model of added economic value has been introduced as a comprehensible quantification of performance that interconnects the elaboration of the budget, financial planning, the carrying out of the objectives, the quantification of performance, communication towards shareholders and stimulation owing to compensations with a view of correctly registering all the manners according to which the company is able to create or lose value. Yet, this system does not display systematically the structural components of intellectual capital and is quite ambiguous when implemented.

- **Method of balanced table**. Both financial and non-financial factors are quantified, including: customers’ point of view, internal processes, development perspective, training as well as a system of coherent relations among such measures. The method mainly plays a complementary part to the traditional perspectives through providing nonfinancial elements.

- **Navigator model**. According to this dynamic and integrating model of quantifying capital, intellectual capital is divided into human capital and structural capital.
represents the combination of knowledge, aptitudes, intuition, the individuals’ capacity of carrying out tasks and objectives (it includes values, culture and philosophy); Structural capital – represents the knowledge that belongs to the organization when human capital is not included. It represents, in fact, the knowledge that is left within an organization when people “leave”. Structural capital includes organizational capital and market capital (commercial capital). Contrary to human capital, it can be changed by commercial exchanges; Commercial capital represents a value that results out of the company’s relations with its customers; Organizational capital includes organization’s capacities such as hardware, software, data bases, organizational structures, licenses, registered marks and any other capacity that helps measuring individuals’ productivity through transmitting and exchanging knowledge; Processes capital includes the processes, activities and afferent infrastructure used in order to create, exchange, transmit, and disseminate the knowledge that helps measuring the productivity of the individuals of an organization; Innovational capital is a component of intellectual capital and shows the capacity of an organization as well as current investments required by the development of the company: research and development, licenses, registered marks.

Initially, the modern theory of human capital has been developed by the group belonging to the University of Chicago that was intellectually coordinated by Theodore Shultz, the president of the American Association of Economy. Through postulating individuals’ rationality, Schultz and his collaborators have considered educational and health expenditures as investments that target the increase of labor productivity and, implicitly, of economic growth. Jacob Mincer, Gary Becker and those who followed mainly focused upon the analysis of the relations between human capital and labor incomes, namely upon the analysis of incomes variations depending on the individuals’ level of education. Gary Becker set forth a remarkable description of the theory of human capital (1964): “individuals’ incomes substantially grow depending on the level of their education”. Mincer and Becker generally limited their approaches on the human capital to the analysis of the educational capital, emphasizing the costs of education investments as well as the relation between school and post-school investments.

During the last decades, the analyses upon human capital started to define it mainly as an educational capital owing to the impact of the theory of human capital. Blaug (1976) showed that education represents in fact the essence of human capital, its importance being superior to that of health components. The comparative researches on the quality of education in transition countries and in the countries with a developed economy emphasize the fact that this is an issue which most countries of Central and Eastern Europe have to face. For instance, when compared with their colleagues in Canada, France, Israel, Great Britain, the students of Hungary, Slovenia and the former states of the Soviet Union have shown a better knowledge of facts but a decreased ability to use their knowledge according to a new and different context (www.worldbank.org).

Specialists consider that an educational system that does not allow the pupils to develop their capacity of capitalizing their knowledge in various concrete circumstances, that does not determine the development of creativity, of the innovating spirit, cannot be considered a quality and efficient system. The graduates who won’t possess such skills are going to face unemployment, social exclusion, and poverty.

Gary Becker has developed the theory of the investment in human capital connected with the term of rate of retrieving the investment in human capital. Human capital and, implicitly, the investment in human capital – mainly, investment in education – determined both the capacity of the individuals to earn and their chances of getting hired. A recent study elaborated by OECD has confirmed the importance of the investments in education as a major determiner of the growth and development of contemporary economy.

Young people’s tendency to go further with their studies contributes to the development of the society as a whole – the evaluations are mainly based upon the high rates of retrieving the investments in education. Other researches have shown the importance – for education
investments - of the various non-economic benefits that may be associated with such investments.

One of the most important motivations of the individuals that regards education investments is connected with the accumulation of a stock of human capital – materialized in knowledge and competences that tend to determine an increase of productivity and implicitly of the potential gains an individual hopes to get – expressed both in monetary terms and in non-monetary terms.

The central idea of all the theories regarding intellectual capital and the knowledge-founded society states that values have changed their hierarchy; accordingly, physical resources have lowered in order to make room to intangible resources which become an increasingly important factor in the development of the efficiency of a business.

The main characteristics of the European economic environment are, to a certain extent, similar to those of the Romanian environment:

Technological innovation – the accumulation of an impressive amount of knowledge in all fields, the increase of market competition determine the adoption of new technologies;

Employment instability – employees are forced to change both their jobs and their profession. Such instability is much higher in case the economy shifts from a planned economy to a market economy;

Decrease of fiscality – on a long term, when competition is going to increase, the pressure companies exert on governments will be higher and higher with a view of decreasing fiscality.

It means that the State is compelled in the future either to largely withdraw its support for financing public services – among which education – or to identify other financing resources. The change of the economic context requires a fundamental revising of educational offer in all countries.

Since the beginning of the ’90s, educational offer in Romania has been enlarged both at the level of secondary education and mainly at the level of higher education. Moreover, during the first years of transition this type of offer met the demands of the labor market: increase of the number of specialists in economic, medical, and juridical sciences, in informatics, etc.

The lacking of a system of monitoring the relation between educational offer and the present and future demands of labor market has determined important malfunctionings: narrow specializations, neglecting the training of specialists in certain fields and over-crowding other fields, poor employment, etc. Under such circumstances, within the Romanian labor market one may notice phenomena of poor employment, of inferior use of professional training, and of devaluation of diplomas which are not the result of too many diplomas but of the fact that they are not being used. In all countries possessing a developed economy such phenomena are frequent but while there they have a temporary character (they are meant to facilitate the passage towards a job that meets training or they are determined by the fact that the number of higher education graduates is too large), in Romania they have a permanent character. The slow rhythm of economic growth and the difficulty in creating new jobs determine a low labor demand and, implicitly, of human capital.

Investments in education, in training human capital both at an individual level and at the level of the whole society depreciate in case the knowledge, competences, and qualifications are not regularly and properly employed. Various researches showed the importance of education investments as well as the numberless non-economic benefits that may be associated with such investments (Suciu 2005).

The amount of education expenditures differ not only from one country to the other but also from one individual to the other and are able of rendering a view both upon the capacity of a country to support the development of human capital and upon the place such expenditures detain within long term development strategies. The fact that expenditures
with education, at an individual level, are uncertain and variable determines the increase of the part played by the State and governments in financing education, either totally or partly. In Romania, education is free of taxes at all its levels and the access to education is guaranteed by law to all persons irrespective of sex, nationality, religion or social and family origin. Nevertheless, it is quite obvious that, under the circumstances of a deflactory economy, the sole existence of an education - favourable legislation is not enough. Romania has entered, as other countries under development, a vicious circle: a low level of development determines the limitation of education investments and, implicitly, in human capital, and decreases labor quality and productivity, the main factors of economic growth.

Another aspect concerns education financing, namely the manner of distributing expenditures according to levels of education. One may notice that the entire financing of elementary and secondary education is more beneficial for society than for individuals and materializes into a higher level of reading and writing abilities, the increase of the degree of social and economic participation of the population, improvement of the quality of family life and of health, etc. Consequently, in a large number of countries elementary and secondary education is tax-free and education’s duration is quite long. Investments in higher education possess a higher rate of rentability at an individual level than at the level of the society, mainly owing to the future increase of salary incomes so that a large part of the costs connected with higher education is paid by individuals. The decisions regarding the distribution of the expenditures according to levels of education should nevertheless take into account the specific characteristics of the society.

In Romania the distribution of education expenditures is unequal due to the fact that higher education detains a prioritary part. Under such circumstances, although education is free at all levels, the capacity of the system to include and maintain within schools the whole school-age population during a longer period of time proves nevertheless to be decreased. The level of education financing and the manner of distributing financial resources affects the rate of school inclusion mainly in case of secondary and higher education. While at the level of economically developed states elementary and secondary education has a general character (those who do not attend school are children with serious psychical or physical health issues, emigrants’ children or delinquents), in Romania the percent of school participation reaches 100% only at the level of elementary school; at a level of secondary education the rate is slightly over 60%.

One of the most important motivations of the individuals for investments in education is connected with the accumulation of a stock of human capital – materialized in knowledge and competences that tend to increase productivity and, implicitly, the potential incomes individuals hope to get – expressed both in monetary terms and in non-monetary ones. The “prize” received as a result of the investment in education expressed as salary is quite important in case of higher education graduates. In a series of countries the salarial “prize” attached to the investment in education has had a growing tendency from the beginning of the ‘80s; such a fact might suggest a significant increase of the demand of employees possessing a higher level of qualification. Meanwhile, an important growth of educational demand has been noticed. Other hypotheses connected with the attempt at explaining the increase of the salarial “prize” of the investment in education during the last two decades include the decline registered by the rate of trade union inclusion and the decrease of the real value of the minimum salary.

Today, the stress shifts towards the flexible and skillful enough organizations which need specialists who are meant to work together in teams. Such teams are suggestively called multi-functional teams. Accordingly the world changes from narrow specializations towards teams and especially towards multi-functional teams that focus not only upon the quality of the product but also on the quality of the decisional factors in the business environment. Inter-functional and multi-functional teams consist in members that possess various ranges of qualifications and competences. Such a fact is extremely significant in the context of the new economy and knowledge society. Career trajectories favour those who can practise several professions, who are really skilled in team working, and who are ready to permanently improve themselves.
The re-modelling and reconfiguring of the new world of business have an important impact upon certain key economic concepts and models which would imply: the use of multifunctional and inter-functional teams; the adoption of horizontal structures and the elimination of hierarchies, the processes of re-engineering. The focus shifts from labor organizing as a traditional production factor based on labor division towards team organizing and the identification and development of career and competences management. Experience has shown that performant and dynamic teams may be more efficient within a change-dominated environment than large organizations or individuals may be. Globalization significantly changes the manner businesses are carried out and it also increases the spreading of know-how and innovation. From such a point of view, organizations should become more and more competitive. And this fact obviously requires the re-statement of the principle of comparative advantage through resorting to the more suggestive concept of competitive advantage in the context of the new economy and of knowledge society.

The main factors that allow Romania to become an innovating entity include the following: consistent investments in education, in general, and especially in higher education; a quality informational and technological background; high levels of governmental expenditures afferent to research and development; efficient laws that are able to protect the intellectual property which supports the activity of research and development. Romania's integration within the European Union from the perspective of the human factor requires a certain level of professionalism as well as spiritual, cultural and economic evolution continuously adapted both to the new economic environment which is internationally integrated and to the integrated, unique world that demands unique people. All these involve focusing on spiritual, cultural, social and human values that are going to increase the importance of the national character and effort with a view of integrating; consequently, the part played by native values and their match with the principles of universality and globalization increase.

Present-day economies, investments in education and in training employees are as important as patrimony investments. The world we live in relies more and more on information; technology and production methods rapidly and constantly change. “Intangible capital” and knowledge produce the highest amount of added value and a computer “click” might mean as much as the possession of consumer goods.

3. ASPECTS OF THE PROCESS OF TRAINING HUMAN CAPITAL

Education plays an important part in the training of “human capital” and in individuals’ welfare. Accordingly, beyond the numberless exceptions, one may state that the more persons are better educated the larger their chances and economic success prospects are. In case one considers the previously mentioned facts not only as theoretical observations then they may have important practical consequences upon economic growth. As a result, certain governmental policies, for instance, the fiscal one, may discourage individuals from attending higher education; such circumstances are going to determine a decrease of the productive capacity of national labor. Owing to education, individuals’ anticipated incomes throughout their lives increase, education being perceived as a long term effort. When the taxes paid by individuals increase as their incomes grow then fiscal policy discourage them from employing their time and required resources with a view of getting a higher level of education. Consequently, high taxes diminish success and discourage individuals from attaining it, irrespective of the fact that the required actions to be undertaken mean more work or higher education. As a conclusion, one may state that, in case taxes increase with incomes, they discourage the training of human capital according to the same pattern they discourage work, savings or investments in physical capital.

There are various manners of discouraging the “training of human capital”; yet, they are little known or understood so that, in the context of nowadays economy, most families understand the importance of higher education. In case educational effort is going to decrease, it rather discourages modest incomes families than the wealthy ones. Higher incomes families are able to bear, to a larger extent, the more significant costs involved by
higher education than the families with smaller incomes. Almost each branch of economy and each occupation require now a rapid afflux of new technologies. And new technologies do not only regard the processing of data and Internet, they also refer to other important components.

As economies develop, their demands also increase as well as the rewards given in response of certain levels of education and abilities. Between 1999 and 2009, 60% of the total number of jobs created worldwide – according to a UNESCO report – required a “rather high level of abilities”. In order to benefit from the rapid spread and integration of top technologies, Romanian educational system as well as the social and governmental systems should be powerful systems. And, they should not restrain the individuals who want to improve their education or professional training. Unfortunately, our present system does not meet this requirement and most proposals of reform or improvement have fallen.

Quite often, governments have toughly treated the training of human capital contrary to the foundation of physical capital, yet, “an essential aspect of individuals as producers of value in economy is the sum of their capacities, experience, and knowledge.” This concept was first defined by Becker (1975). Human beings, as individuals, develop their human capital through life experiences, professional training, and education; and the quality and quantity of our human capital determines, to a large extent, our ability to contribute to the development of economy or to our own incomes. For generations, families have made sacrifices in order to give all their children or some of their children to school or even faculty as they considered they could accordingly offer them a better life. Sometimes such facts have been motivated by the mere beliefs in a better life offered to educated persons. Most often, parents have understood that by acting like this they determined unlimited opportunities for their children in forging a career, obtaining higher incomes, and possessing an increased financial safety.

A research made in 2011 by the Labor Statistics Bureau in the U.S.A. supports this confidence in education. The research displayed the weekly average incomes of full time individuals depending on their level of education in 2011. The data show that, on an average, an 8 - grade individual or less earns less than an individual possessing a baccalaureate diploma; another 4 years of education could determine an increase of the average income of up to 57%. A higher education individual earns even more, so that only 4 supplementary school year could almost double anticipated income of a person while those who got their Ph.D. could earn up to 20%, on an average. Such aspects are displayed by the data shown in Table no. 1.

Table 1: Weekly average earnings as compared with the educational level in the United States

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Weekly average income (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph.D.</td>
<td>1,551 $</td>
</tr>
<tr>
<td>Master</td>
<td>1,665 $</td>
</tr>
<tr>
<td>Higher education</td>
<td>1,263 $</td>
</tr>
<tr>
<td>Baccalaureate high school studies</td>
<td>1,053 $</td>
</tr>
<tr>
<td>High school studies without baccalaureate</td>
<td>638 $</td>
</tr>
<tr>
<td>Gymnasial studies</td>
<td>451 $</td>
</tr>
</tbody>
</table>


Higher levels of education offer the individuals a higher mobility that concerns their profession change and growth of incomes. For instance, it is much easier for a higher education person to adapt to the changes on the labor market through learning new abilities or implementing former knowledge to new circumstances.
Education is important during all stable and positive periods due to the fact that it is more probable that an individual who is successful in several fields could shift to those activities most demanded on the market. And in case economy does not function properly, it is exactly that higher degree of job mobility that allows the individual to adapt when circumstances are not favourable. Economists have tried to determine an anticipated efficiency of the investment in an individual's education. Accordingly, taking into account anticipated costs (school taxes) and anticipated incomes, they attempted at calculating the rate of efficiency which would result out of the income differences among the various levels of education.

In 1974, Jacob Mincer analyzed the relation between a supplemental school year and the anticipated increase of incomes during one's life. An important aspect of the analysis is the emphasizing of the supplemental time employed in order to study and not the focusing on the diploma obtained. Mincer (1974) considered that the only cost of a supplemental school year is anticipated income, ignoring accordingly direct costs, such as school taxes. Such circumstances were the result of the data he employed so that the results of the analysis should be regarded as an estimation of the upper margin of education investments.

More recently, specialized works (Krueger and Lindahl 2000) have reached an important conclusion that matches the results shown by Mincer: in the U.S.A. each supplemental school year determines about 10% increase of the incomes during one's life. Such results make us understand the effects education has upon the anticipated future incomes of the individual that also extend at the level of the economy as a whole. Heckman and Klenow (1998) have discovered that the general result really extends from the individual, micro level to the national, macro level.

For society, education represents a benefit that does not manifest itself at the level of the individual. From an economic perspective, such circumstances show that the social efficiency of education surpasses its particular efficiency. The training of human capital is quite important for the personal capacity of an individual to contribute to the development of economy and to earn more; yet, one should not ignore the social consequences of the existence of a population possessing a higher level of education.

Romania’s educational system may be perceived as ranging within a final stage of a long transition whose characteristic elements are: transparency, simplicity, difficulty in managing the funds required by “education investments” and the incorrect treatment of the teaching staff as compared with other social categories. From another perspective, the teaching staff and their representative organisms are concerned both with the diminution of their salaries and improper work conditions and with their being marginalized when adopting decisions connected to the inclusion of individuals within educational systems.

An important concern of worldwide governments consists in adapting education and individuals' training to the requirements of economy through displaying a real and necessary relation between education and labor market. This correlation is also shared by the companies or institutions that are interested in employing personnel due to the fact that such entities are sensitive as to the educational system’s capacity of giving potential employees enough skills and competences able to match the challenges of global economy and competition.

Although life is full of truisms, nevertheless, a basic foundation of the policy of the Romanian state during the present period is expressed by the sintagm: the longer you learn the less you learn. In case one associates this observation with the payment of supplemental education taxes, the following conclusion may be drawn: “the more school taxes increase the less the individuals study.” Fortunately, the more one invests in human capital the more economic performance may come out. Individual education expenditures maintain or improve a skill required by a profession or business an individual deals with at the present moment or carries out the specific demands of an employer. Education expenditures provided by an employer are understood as obligations settled by the Labor Code.
The State contributes to the carrying out of an investment process in education through giving loans to the students or paying non-taxable scholarships. In the economic field insufficient sums are distributed for research and development as percent of the GDP while education investments are small. Although on the free market there are states which are more developed and wealthier than Romania, one may notice that nevertheless they do not own enough public funds so that they can provide the amounts necessary in order to support education as a main factor of economic growth. Consequently, certain solutions have been looked for as regards the partnership between the public and the private system, through supporting the sponsorship system of public education by juridical or natural private persons and even through encouraging private educational systems.

The training of human capital through educational and investment processes represents a global responsibility of all individuals and governments. Without a collective psychology able to determine a profound shift along the previously mentioned direction Romania will hardly be capable of abandoning its statute of periphery economy of the European Union which it tends towards.

**4. CONCLUSION**

The logical sequencing of the hereby scientific approach has started from the study of the concept of human capital from the perspective of its foundation and capitalization owing to the educational process, in general, and to higher education, in particular. The analysis focuses both on the connection between public investment and the development of human capital and upon the link between the efficiency of this category of public expenditures at the general level of society, perceived as a whole, and its particular perspective – usefulness and efficiency at an individual level.

A series of consequences come out of these facts and affect people – direct and unique suppliers of this intellectual capital. Education should be thorough as better educated means more power and consequently better jobs. As a result, organizational culture should consider creation, innovation, transfer, and the re-use of information and knowledge in order to extract a better profit from intellectual capital. Human capital has been paid attention by specialists, mainly by those belonging to the economic field, when they realized that both at an individual level and at the level of a country the most significant profits are the result of the investments in knowledge, competences, and qualifications and not of the investments in physical capital (equipments, buildings, machines, devices, etc.). Due to the fact that most knowledge, competences and qualifications are acquired at school, owing to the educational process, education has been acknowledged its determining part in accumulating and developing human capital and, co

In order that the effects of education upon the development of human capital and of economy are maximized certain terms should be observed: quantity and quality of education measured according to the years of study, percent of the GNP allocated for education, rate of school inclusion, results, high school performance, educational offer meeting present-day and future demands of labor market; existence of a stable social, economic and political environment and of an increased rhythm of economic development; differences among incomes at an individual level, salaries matching educational and professional level of the individual.

Professional training is directly connected with the short, medium, and long term production stages of various companies; they differ both from one stage of economic development to another and from one individual to another.

Education investments are inefficient in case they are not accompanied by an adequate strategy of social and economic development. Consequently, it is also important to consider the other terms such as: stability of the social, economic and political environment, an increased rhythm of economic development as well as the existence of a direct relation between incomes, occupations and level of education and training.
REFERENCES


