The Education, An Elixir of The Economic Growth

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ABSTRACT

One of the most important services amongst those financed by the budget, which apply directly to people, but simultaneously have an essential part over the economic growth and human beings society progress, is represented by the education.

Research carried out and related documents have attested that massive economic transformations, started with the beginning of the XIXth century and delineated by the industrial revolution of North America and Occidental Europe, emphasize the result of education progress.

In such conditions, one should take into account that the education institutions characters have suffered specific changes and the occurrence of new functions, simultaneously with the economic growth. From this reason, the education has become a parameter with thoughtful influences within the human society progress, as well as a catalyzer related to the economic growth, for both the developed countries and those in progress of development, furthermore.

Improving the performances of the education system in Romania has imposed, in no uncertain terms, the improving of legislation in field, the assignment of financial resources in regard to the system's needs, the continuous apprenticeship and training of the teachers, getting through the innovation, the improvement of management, the rethinking and modernization of structure and the way of educational systems carry out their activities, as well as the identification of new mechanisms and instruments in order to ensure the access on large scale of the youth on all levels of education. Within the same frame, one may estimate that a better organization of the access ways has become necessary, from education to work, offering new opportunities of studies continuation or of associating the studies to work experience, by identifying new solutions to people being in risk situations, as well as streamlining the information and guidance systems.

Keywords: Lifetime learning, the rate of school abandons, education quality, economic growth, tertiary sector, education

INTRODUCTION

Transformations that have happened in the last decades within the market economies of the developed countries and of other economies of the world signified the result of more and more active attendance of "superior" services. The annual average rhythm of increasing the services offer was higher than in other fields, exceeding the growth rhythm of GDP in the developed countries, as well as in the other countries.

The services have become an essential "segment" in continuous expansion for the world economy; as regards the OCDE countries, the empirical proofs confirmed a more emphasized dynamics of this sector, as comparing to that of the economic growth, in the last decades. Such progress was possible by the intentness over intensive factors of the economic growth (knowledge, research and innovation), by stimulating the internal savings, by promoting the

ISSN: 2223-9944, eISSN: 2223-9553

economic sectors that create value and by stimulating the knowledge based sectors, by means of the infrastructure development, by the specialization of products and services on classes offering competitive advantages and not lastly, by means of conceiving and implementing coherent and sustainable politics.

In this way, one can see one of the most significant changes that emphasize with an unsuspected force not only the individuals' life, but over the humanity's history, as well; Stephen Covey described such transformation as representing the passing from the Industrial Era to "The Era of Knowledge Professional"(Covey,2006). As regards the Industrial Era, the engine of economic growth and prosperity was represented by the engineering plant and the capital, in other words, the things; the passing towards the knowledge professional era brought along a paradigm changing. Peter Drucker suggestively pointed out this paradigm changing in Management Challenge for the 21st Century: "The most important values of the XXth century campaign were represented by the production engineering plant that was owned. The most important value of the XXIst century, either it's about a campaign that aims on benefit achievement, or a non-profit organization consists in the knowledge professionals and their efficiency."(Drucker, 1999)

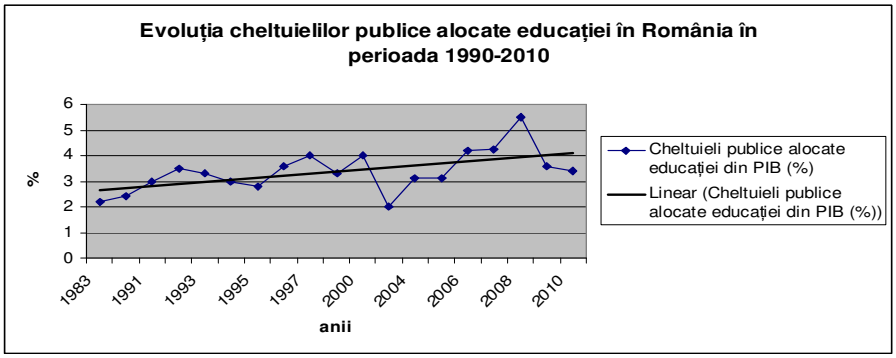
The technological and scientific contribution (resulted from the most various branches of the science) and the information (either regarded from the individuals' knowledge point of view or the sophisticated technical means) have actually amplified more and more their part as "raw material" of the economic activities. Alfred Marshall emphasized the human resources importance in *Principles of Economics* (1890): "the most valuable issue of the capital is the one invested within the human being"(Marshall,1920); in other words, the human resources quality, in generally, and especially the education resources have represented a decisive factor within the economic growth, per assembly. Such ideas have found the confirmation in reality; for instance, a series of studies carried out within OCDE have revealed that extending the average education time by one year can induce an economic growth of up to 5%, and forwards, by 2.5% on long term (Fuente and Ciccone, 2002). In the same time, increasing the schooling period of time by one year has had a substantial effect over the individual wage, meaning that an increase by almost 6.5% could be noticed; positive results were felt over the unemployment rate, as well, and this was reduced in proportion as the education level was improved, thus reducing the social costs involved, as well.

As regards the developed countries, a large part of the active working people carries out activities within the modern services, by using tools of information processing or sending, activities that allow the accurate functioning of the economic growth, by countervailing the risk and uncertainty etc.

- The experience of the developed countries has proven that services (especially those of knowledge-intensive type) have become essential sources of the economic growth. As regards Romania, the services should become prior objectives of the future development.

The fields of essential significance within the tertiary sector development are those whose potential was not enough capitalized up to present times; one can take into account the knowledge based services, the services with significant part within the human resources development, the services of environment protection etc. One can also emphasize that information and knowledge have played a very important part within the process of economic growth. Unfortunately, over the time, the resources assigned to education in Romania have proven to be incommensurate as comparing to the real needs of this field, regarded especially from the development imperatives point of view; in contradistinction to most of the developed countries, the financial support has oscillated somewhere about 3% of the GDP and an average of almost 10% of the total public expenditures.

ISSN: 2223-9944, eISSN: 2223-9553



Graphic 1. Progress of the public expenditures assigned to education in Romania, during 1990-2010, in accordance to INS data

A severe reporting to GDP can offer a relatively distorted image, since the attention that the education field brightens from one country to another is not accurately observed by means of the resources assigned from GDP; more representativeness is the indicator that quantifies the level of expenditures with the education, within the total of the public expenditures. This happens since the public revenues have continued to represent the main source of covering expenditures in education, for most of the member states of EU-27, USA and Japan. The weight of expenditures from public sources has registered the highest values in Sweden and Ireland, while the private resources in Great Britain and Cyprus are of prior significance on education financing (Key data on Education in Europe 2009).

As concerns the weight of public expenditures over the education financing in GDP, one can notice that its value was higher in USA (a percentage within 4.94% in 2000 and 5.61% in the top year 2003, and respectively 5.49% in 2010), as comparing to the average registered in European Union (included within 4.91% in 2000 and 5.44% in 2010), and lower in Japan (with a variation within 3.45% in 2007 and 3.85% in 2010).

TRAINING LEVEL OF THE PEOPLE

One may emphasize the idea according to which the professional training and continuous learning have played a significant part within the economic and social frames. The education quality has influenced not only the personal development, but also the position in society and future employment opportunities of each individual. The education quality has been directly connected to the quality of the education processes, as well as the education infrastructure.

In order to strengthen these statements, the studies carried out during time by D. C. McClalland and D. G. Winter (1969), A. Inkeles and D. B. Holsinger (1974), J. R. Goody and I. Watt (1968), underlined by their assertions that modernization of society will always depend upon the education result. Another issue that one should take into account relies in the need of carrying out a democratic political system, as well as the demographic growth. In accordance to these reasons, one can see that besides the positive effects, the negative effects of under-education or over-education might occur, consequences that can be found in the following: the discrepancy of revenues achieved by other persons that beneficiated by education, as comparing to other persons; the process of social exclusion (Burchardt&Piachaud,1998) of individuals, as well as the effect known under the name of "gear wheel" (drawing away people of average education studies by those individuals with high education studies, because the last ones can accept jobs under their formation level.) and the effect over the rural economies (educated people migrate towards the high urban resorts, thus generating the lack of labor force in the rural community on one hand, and the growth of labor force in the urban resorts over the employment offer, on the other hand). Concerning

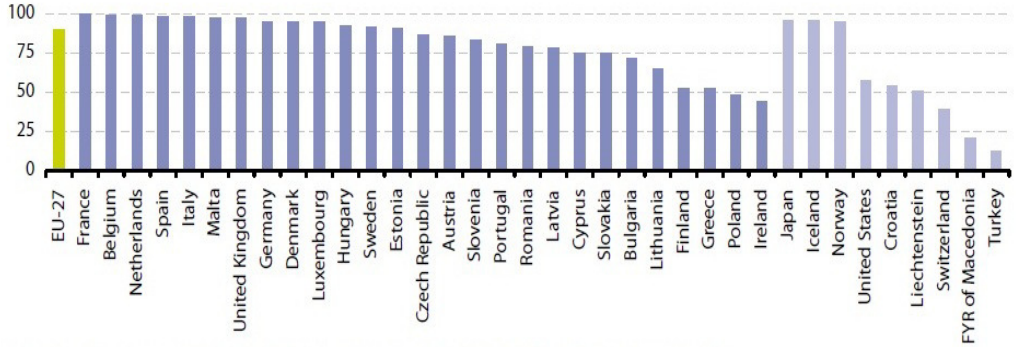
ISSN: 2223-9944, eISSN: 2223-9553

the last issue, A. H. Hawley (1979) explained that migration and urbanization of nations have had positive effects over the economic development. As result, the relationship between education on one hand and the level of development, on the other hand, will be mutual for a society.

The fifth report as regards the cohesion has underlined that "in order to become more productive, EU needs more innovation (in the large way) and more investments in education, training and learning during the entire lifetime" (Investment in the future of Europe. The fifth report as regards the economic, social and territorial cohesion (Preliminary report November 2010, p. XXV). In this way, the report highlighted the significance of education, especially for the active aged people with higher education studies. This is connected to the innovation and makes easier the fast dissemination of new knowledge and information. The forecast issued underlined that a growth of 10% in weight for the active working and highly educated people usually determines, in average, a growth in GDP per habitant, by 0.6 percentage points per year (Investment in the future of Europe. The fifth report as regards the economic, social and territorial cohesion (Preliminary report. November 2010).

Concerns with supporting and making more efficient the education system were reflected within the strategic frame of EU, for cooperation and training (adopted in 2009). European Union has established more sets of reference point values, which were meant to be reached up to 2020, and able to complete the targets already mentioned in Strategy of Lisbon and Europe 2020 (Statistics Yearbook of Eurostat, 2010), meaning:

a. The aims targeted with the pre-school education are highly identical to all countries of European Union, and advert to the independent development of children, to their wealth, to cultivation of self-confidence, as well as to their active involvement on preparing for school. Regarding the pre-school children matriculation, the following graphic (no.1) shows that institutionalization of them is carried out in percentage of 100% in France and 78.8% in Romania (The gross rate of matriculation in the pre-school education has continuously increased during 2003-2010, from 71.8% in 2003/2004 up to 78.8% in 2010/2011, where the growth was of 7 % for a period of 8 years. The ascending trend of the indicator was maintained in the school year 2010/2011, where the shown growth was of 0.4 % as comparing to the previous year. In this way, the value of indicator reflected an increasing level of participation to the pre-school education.). In order to improve this condition, Romania proposed to reach a level of 95% of the recalled indicator until 2020. The graphic shown below emphasizes the situation of Romania and other states, as regards the rate of inclusion within the education system of the four years old children.



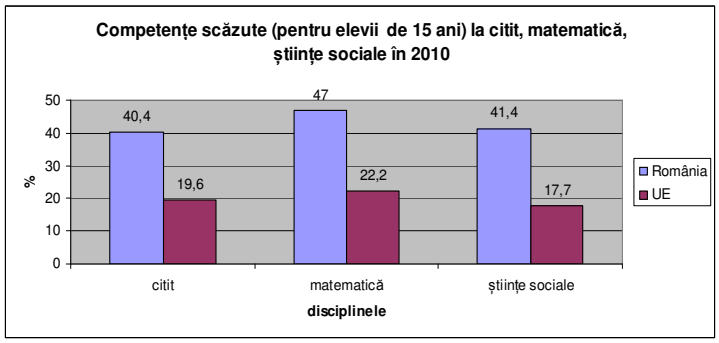
(1) Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

Source: Eurostat (tps00053)

Graphic 2. Specific rate of inclusion within the education system of the four years old children (percentage of four years old children)

ISSN: 2223-9944, eISSN: 2223-9553

b. The percentage of fifteen years old people with weak abilities in reading, mathematics or sciences should be lower than the value of 15%.

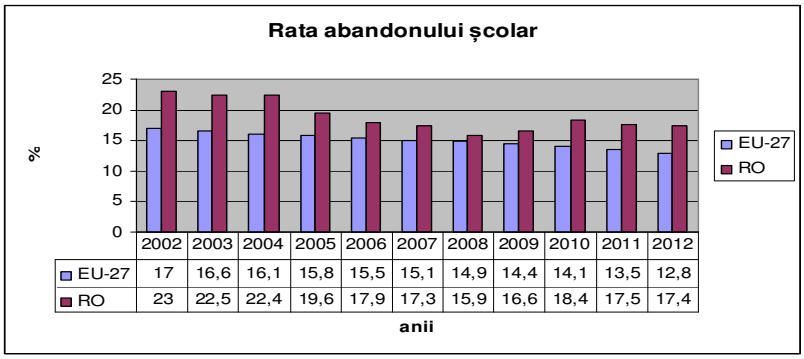


Graphic 3. Weak abilities (of fifteen years old pupils) in reading, mathematics or social sciences in 2010

Source:http://www.hotnews.ro/stiri-esential-13659261-strategia-europeana-reorganizare-invatamantului-elevii-trebuie-deprinda-scoala-competentele-cerute-piata-muncii.htm

Identifying the knowledge level (in fields as literature, mathematics or sciences etc.) owned by people can be determined by using certain methods of testing, by means of specific questionnaires. Such methods underlain some projects initiated by OECD, as PISA (Program for International Student Assessment) and IalS (International Adult Literacy Survey). The above mentioned methods have measured only few of the abilities and competencies that are submitted to the investigation, and proved a series of limitations (one can take into account that the pattern might be too low or non-representative etc.). By the help of these tests, one can carry out similitude on international level, as well.

c. The weight of early school abandon in education and training should be lower than 10% in EU, and as regards Romania, the target has a value of 11.3%. The rate of school abandon has shown in the last years a descending trend on internal level (at the beginning of 2002, the rate had a value of over 20%); despite this direction, Romania has been yet situated among the countries facing issues, as regards this point of view, as well as concerns the school abandon with a high rate within total people under analysis; graphic no. 4 highlights more suggestively this issue, by means of comparisons carried out (the rate of school abandon in Romania for the year 2011was of about 17.5%, while the European average was placed to a value of 13.5%).



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
EU-27	17	16,6	16,1	15,8	15,5	15,1	14,9	14,4	14,1	13,5	12,8
RO	23	22,5	22,4	19,6	17,9	17,3	15,9	16,6	18,4	17,5	17,4

Graphic 4. Rate of school abandons

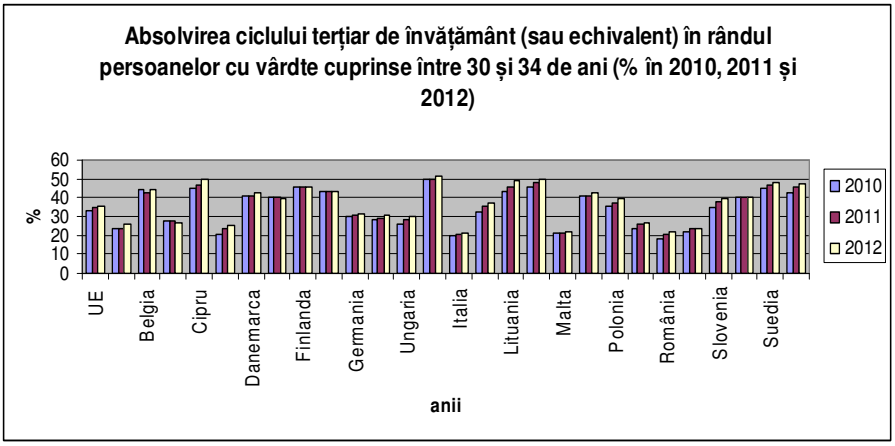
Source: ****Quarterly report*, National Committee of Development, No.1, June 2012; www.comitetdezvoltare.ro; http://www.hotnews.ro/stiri-esential-14606955-comisia-europeana-rata-abandonului-scolar-romania-fost-17-4-anul-trecut-iar-media-este-12-8.htm

ISSN: 2223-9944, eISSN: 2223-9553

The estimated progress during 2010-2020 of the same indicator (rate of early school abandon, 14.8% in 2013; 13.8% in 2015; 11.3% in 2020) revealed the possibility of improving the situation in analysis, in conditions of a realistic scenario of economic development and implementation of an accurate measurement. In this way, in order to answer to recommendations regarding the target in maximum value of 10%, established for the early abandon within the education and professional training systems (strategy of Europa 2020 established a double main goal, as regards education, meaning that until 2020, the weight of youth of ages between 18 and 24 years old, and which early abandon the school, should be under the value of 10%; the European youth with ages between 30-34 years old that graduated higher education studies, or of equivalent level, should be represented by a value of at least 40%), a series of programs on social support should be applied in Romania and some other EU member states; according to situations, such programs should refer to people's participation to the compulsory education, by taking into account the interaction between the social environment and the effects of the abandon over education.

On these lines, one should highlight that using such indicators will always allow the strengthening of international comparisons, and they will simultaneously offer a large image over the current and future situations of "the education state" in Romania, as well over the possibility of implementing specific politics towards the way of improving the education quality (In order to modernize the Romanian education system, and for adapting it to the current requirements of the knowledge society, the Romanian Government promoted Law no. 1/2011, which included mean term estimations, in the view of building high quality human capital, able to support the intelligent, lasting and favorable to inclusion growth. Generally, the condition of girls was better, meaning: the rate of school abandon was with 24% lower than to boys. The highest differences in this way were shown in Cyprus (+58 %), Latvia (+57 %), Luxemburg (+57 %) and Poland (+55 %), where the rate of school abandon to boys was higher than double of the value established to girls.).

d. The weight of people aged between 30 and 34 years old, with higher studies education, should be of at least 40% in EU; as regards Romania, the target aims to 26.7%. In 2012, for twelve member states (Belgium, Cyprus, Denmark, Finland, France, Ireland, Lithuania, Luxemburg, Holland, Spain, Sweden and Great Britain), the weight of people aged between 30 and 34 years old, with higher studies education graduated, was higher than the goal of 40% set and estimated within the Strategy of Europe 2020. Poland and Slovenia will certainly overcome this target in the next year; as concerns Romania, 21.8% from people aged between 30 and 34 years old graduated the higher studies education.



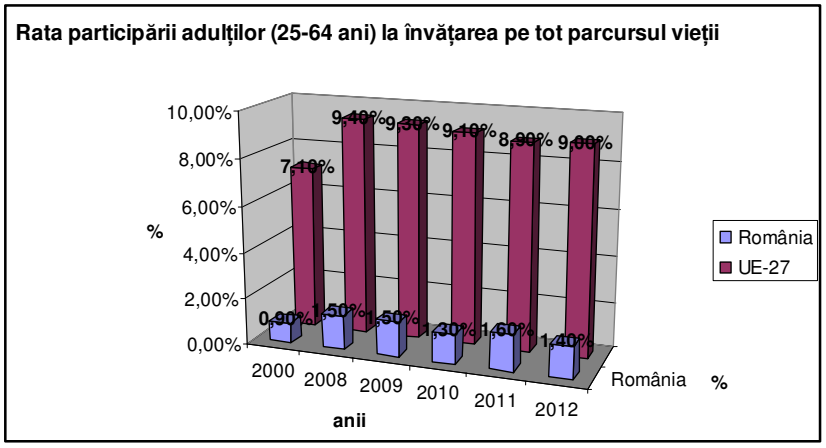
Graphic 5. Graduation of tertiary education cycle amongst people aged between 30 and 34 years old.
In accordance to Eurostat (Investigation of EU over the labor force)

ISSN: 2223-9944, eISSN: 2223-9553

The most worrying situation is placed in Bulgaria, where the already low percentage of graduates of tertiary cycle (26.9%) knew a light comedown in 2012 (In 2012, at the level of UE27, the percentage as regards the graduation of tertiary education cycle was of 127 women related to 100 men, within the group of people aged between 30 and 34 years old. As regards Latvia, the percentage was of 185 women related to 100 men, while Luxemburg was the only country where the level of men that graduated the tertiary education cycle was higher than the percentage of women, 97 women related to 100 men).

The individual benefits of which the higher education graduates enjoy are significantly larger in relation to the benefits achieved by the secondary-school cycle graduates, from both the remuneration point of view, and from the work place point of view, as well.

e. At least 15% of the people aged between 25-64 years old should participate to the process of learning during their lifetime (the willing of learning, after graduating the secondary-school, higher-education studies or master degree; the willing of not stopping to the official education – related to school – and the willing of participating, at least once in few years, to courses or training). The results of the European Committee report showed that Romanians haven't had "serious impulses" of coming back to learning classes; instead, the Danish, Swedish and Finnish owned a percentage of up to 30%, as regards the coming back to learning classes. The average participation level of active aged people over learning during the entire lifetime in Romania has a value of only 1.5%. The low rates of participation to the learning activities, during the entire lifetime, have been owned by also some other EU member states situated at the border of the continent, such as: Greece, Hungary, Malta, Poland, Portugal and Slovakia (Regional Yearbook of EUROSTAT 2010).



Graphic 6. Rate of adults' participation (between 25 - 64 years old) in lifetime learning

Source: Data of EUROSTAT: lfst_r_lfsd2lll

The lifetime learning has always need the growth of investments in people and knowledge, getting through the direction of fundamental qualifications, including the digital field and the enlargement of chances for more flexible innovating forms of education. Such process of education has forecast the access of people, no matter their age, in an equal and free way to all opportunities of high quality learning, as well as to a large variety of experience exchange all over Europe. The target people, analyzed within the education frame statistics and during the lifetime, were highlighted from all people coming from private establishments and aged between 25 - 64 years old (Concerning the statistics framed within the process of lifetime learning, one can conclude that official education corresponds to the education and formation within the usual system of schools, high-schools or universities. The non-official education and the professional formation include all types of learning activities, which are not

ISSN: 2223-9944, eISSN: 2223-9553

components of an official education program. The statistics do not cover the informal education, which is related to the individual education by using printed materials, computer assisted learning and professional formation, Internet based online education, access to libraries etc (Yearbook of EUROSTAT 2010).

One should also emphasize that not only individuals, but groups, organizations and even societies have learned, as well. The concept of "education of society" has definitely faced limits as well, but one might continue to assert that fellowships have always been able to learn, and examples related to processes of society's education will be drawn up, processes carried out nowadays, as well (In the view of explaining the meaning of society's education, one might use an analogy, as well. A century ago, the notions of growth and development were applied to only individuals, but nowadays one can refer to the growth and development of societies. In a similar way, one might talk about the ability of society education, wondering if a certain fellowship can learn fast or low, efficient or inefficient.).

CONCLUSIONS

The existence of positive education has always been universal, since the issues that have set conditions over the humanity's future were global. In consequence of the heterogeneousness feature of our world, one can emphasize that both the developed countries and those in progress of development were impercipient, as regards the lifetime learning or "the innovating learning". In such conditions, Europe has carried out investments in education, research and innovation, in order to achieve "a more intelligent" world; investments were performed in maintaining a non-pollutant industry, in creating new positions of employment or in reducing the poorness. The education, training and learning will always play an essential part in building a strong basement, related to the economic growth, social cohesion or personal development.

The drawn up conclusion will emphasize once again that the education services have represented a requirement of the XXIst century, from both the individual development (individual benefits) point of view, as well as from their contribution over the economic growth point of view. The impact and social advantages of the education have been high, and presumably larger than the macroeconomic and microeconomic effects played out. This point can also be explained by the high training level of educated people, which will therefore influence in a positive way all people wherewith they communicate or get in touch.

ISSN: 2223-9944, eISSN: 2223-9553

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ISSN: 2223-9944, eISSN: 2223-9553