EDUCATION, ECONOMIC WELFARE GENERATOR
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Education, Economic Welfare Generator

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Abstract

The education-welfare economic relationship has become increasingly stronger in the global economic competitiveness conditions focused on developing research, development, and innovation. As defined by Michael Porter, research and innovation-based economy requires prioritizing education and investing in human capital performance, regarded as the main factor of production unlimited in quantity and quality. In the context of an increasingly more knowledge economy based, transdisciplinary education becomes the means of ensuring the welfare of a nation.

The central aspect of this work is to evaluate how the education has proved that is an economic welfare generator, by analyzing the reasons for the differences between countries regarding the use of the education system as a solution to the new economic challenges. The results show that the years of schooling and the quality of education directly participated in raising the level of economic competitiveness.

Given the targets of the Europe 2020 strategy for growth by reducing early school leaving and promoting a knowledge-based economy, the article demonstrates that education and skills of individuals are transformed into factors increasing the economic performance of a country.

Keywords: education, economic welfare, competitiveness, human capital, Europe 2020.

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1. Introduction

Economic dynamics of a country is in total dependence on the resources that it has at one time. If technological, material, natural and financial factors, constantly help fuel the economy, human capital is the factor that determines the size of these factors, and their productivity.

Currently, the economic theory of human capital based on the quality of education is known as the knowledge economy, which is characterized by new technologies on the market. In the context of the Europe 2020 strategy imposed pressures, we believe that the quality of education is a dominant and a constant source of economic growth.

The international relevance of the analysed subject stems from growing concerns in order to restore macroeconomic balance. In the context of the economic crisis consequences, increasing human capital education and inherent, the workforce, seems to be the reliable way. This leads to increased productivity labour and thus, to a better balanced education level. In addition, investment in education seems to be the least costly strategy to restart the labour market and the national economy.

Considering these, global education once again becomes a current priority, promoted by country projects, or long-term strategies, like The Europe 2020 Strategy.

The aim of this study is to demonstrate that education is a basic indicator of economic growth.

The objective of this study is to analyse the way in which people's skills become increasing economic performance factors.

2. Literature review

Human capital – economic growth relationship is rooted in the works of Adam Smith (1776) and Karl Marx. Although it doesn't provide a concrete way of estimating the value of human capital, Adam Smith (1776) stated in his "Wealth of Nations, that "the country is rich if it has wealthy/educated individuals", citing that "the improvement of knowledge is a factor of economic progress". In Smith’s view, technical capital is and remains resultant human capital, being tangible and measurable; Marx places the value analysis and value creative work out of the qualitative parameters.

Spending on education can be seen both as an investment as well as consumption. Border demarcation between investment and consumption has preoccupied economists (Kiker, 1971, Mincer, 1993; Schultz, 1993), without leading to a total consensus. In general, it was found that human
capital treatment and investment, human capital skills can be used virtually anytime, depending on the social and economic environment in which individuals can place at a certain time.

Contributions in laying the foundations of economic theory and human capital, had Mincer, Schultz, Becker, and Denison. Mincer (1958), believes that citizens' personal skills are correlated with income levels that they are able to produce. Developing this idea, Gary Becker (1997), shows that, as the level of education increases, the income generated also increases progressively. Theodore Schultz (1993) is the one who "calls into question the notion of capital, focusing on capital as time allocation in which human capital is listed" and argues that "knowledge is an economic very particular value; in other words, science is a rational activity reserved for those sufficiently trained to understand it, and health and education expenditure are considered individual potential for revenue growth. In the vision of Mark Blaug (1976): "Education is the essence of human capital, its importance being superior health associated components".

Theodore Schultz (2002) emphasizes the connection between our usual human actions and the action of production through the accumulated human capital stock, claiming that much of what we consider consumption, is the investment in human capital. Thus, the direct costs of education, health or internal migration, in order to make use of better opportunities for work, are the best examples. Other authors believe that education is a generator of economic growth and productivity, as long as it is valued at the right times and if there is a social-political environment in which education can manifest itself.

Jacob Mincer (1974, 1993) emphasize the role of human capital in economic growth, seen “as the stock of skills and knowledge”. Human capital is not only about investment in education but also investment in health, considering that "the only cost of an additional year of school is the expected return, thus ignoring the direct costs such as tuition fees". Gary Becker (1997) defined the concept of human capital as "monetary and non-monetary activities influencing monetary income of future individual" activities which include "school education, vocational training during work, medical expenses, migration, search for information about prices and income" (Rogojanu, 2010). Also, "investment in human capital is influenced by a number of motivations: the primary determinant is the profit / yield what is expected of the amounts invested in human capital and the secondary remuneration, which depends on sums invested in human capital,
and they are determined by the comparison between costs and benefits "(Becker 1997).

The most obvious results of the link between education and economic growth comes from studies of Sianesi and Van Reenen (2002); They highlighted the fact that increasing primary school enrollment by 1%, leads to a gross domestic product increase by 2% in less developed countries; the results showed the same in the case of developed countries. The same study revealed that employees with a higher level of education have a greater impact on the company productivity level. Highly qualified employees generate an abundance of knowledge in the company, thereby it increases its capacity for innovation.

3. Methodology

More broadly, economic growth is associated with GDP growth. Starting from the question: “why do the economic growth rate of a country and the GDP level differs so much from one country to another?”, the present study identifies responses by the possible relationships between the level and quality of education and increasing economic growth, as current reality.

The main indicators that are taken into analysis are:

- Costs of Education
- The economic benefits of education
- The noneconomic benefits of education
- The impact of benefits on economic growth

Regarding the cost of college, at EU level, particularly in developed countries, governments and private citizens are requested substantial financial contributions to ensure a quality education system. The latest report *Education and Training Monitor 2015* highlights the fact that countries with the lowest budget allocations in education are among the last chapter of economic performance.

As seen from the mentioned study, the highest budgetary allocations for education were recorded in Denmark, Sweden, Finland or Belgium, which, not incidentally, are ranking at the top of world economic charts. By comparison, we note that in Romania only 2.8% of GDP was allocated for education, which explains the last position in the country charts for RDI system, both in terms of financial support as well as the international visibility results. Furthermore, this percentage does not reflect reality. A significant portion of the costs imposed by educating students (from primary
school through highschool) are supported by parents. In this situation, compulsory education in such countries is affected by school dropout, previously justified.

By analysing the composition of public expenditure in EU countries, we notice that the share of expenditure on education is relatively small compared to other expenses involved. However, their level remains higher than in Japan, where the emphasis on education led to the economic success demonstrated by the extraordinary results in the field of technology. There are situations when, in developed countries, allocations for education are generally lower, and in poorer countries they are larger. This development indicates that those countries with little financial resources must make greater efforts to ensure a minimum standard in terms of education.

Thus, we believe that the relationship between the costs of education and economic progress (manifested through economic and non-economic benefits) proves to be validated.

The economic benefits of education are productivity of the labour market and wage labour market remuneration. The figure below illustrates a simple relationship between the education level and the income salary. The positive association between the level of wages and schooling is obvious. The income estimations showed in this figure is based exclusively on untaxed monetary income and non-monetary benefits are included. Subjects of reference for this figure are individuals of both sexes, aged over 25 years old who worked full time throughout the year.

**Figure 1.** Earnings and unemployment rates by educational attainment, 2015

Source: author’s work, after Earnings and unemployment rates by educational attainment, 2015
Measuring the impact of education on income, however, has its limits; Harmon and Oosterbeek conducted a study in which they measured the economic benefits associated with the level of schooling. One of the variables used was the rate of return, which, although recorded different values, depending on the type of approach used (the average rate of return was 7.9 with a standard deviation of 0.036), it has identified a significant number of economic benefits determined by the level of schooling. The difficulty of measuring the impact of education on income derived from the difficulty of measuring citizens' personal skills which may cause wage differences. On the other hand, this theory can no longer take effect if the education is not associated with a specialized job, or if that education field is not a priority in the labour market.

Among the noneconomic benefits, but with long-term impact on the quality of living standards, we can identify:

- risk reduction of social exclusion and poverty
- crime rate reduction
- the quality of cognitive characteristics of future generations increased
- health improvement
- improved quality of the social climate by charity, voluntary activities, donations (this is obviously the case of Sweden, where the enrollment rate is nearly 100%, spending on education are very high and the rate of crime is the lowest in the European Union)
- the increment technological uptake
- social cohesion
- economic autonomy

By applying the latest research findings on the current situation in Romania (2015), we found out the following aspects:

School dropout prolongs poverty. School dropout rate in 2015 was 17.3% and 17.7% the poverty level. In the first quarter of 2016, the dropout rate was 19.1% and 19.5% the poverty level;

Poorest regions in the country correspond to the highest dropout rates. In the North-East Region dropout rate was 25.3%; in the South East Region the rate was 24.9%; On the opposite corner, the most developed area of the country, the Western Region, posted the lowest school dropout rate of the country (8.5%);

The effects of these percentages will determine the future consequences at least for 20 years;
At the European level, the average school dropout in 2015 was 11% and in Romania 19.1%, almost twice as much. Analysing these data with the level of economic competitiveness of Romania in EU (27th of 28), we believe the hypothesis of our work and its purpose had been achieved: education remains a basic indicator for growth.

4. Conclusions
All economic and sociological analysis show that countries that invest in education, develop a solid long-term foundation. Countries in which funding for education occupies a small share of GDP, are likely to use harder to handle mechanisms for economic growth. In the current reality, in which material resources, financial or natural are increasingly harder to acquire or to preserve, education becomes the "cheapest" way to trigger the national economy.

Our findings shows that lack of education produce immediate and negative effect in the long term. Education is one of the slower growth factors, the benefits on the economy are seen in a long time, and education remains, in fact, an input and output system.

By 2020, the EU has the objective of reducing the dropout rate, increase the number of people with higher education levels and reducing the risk of poverty. In this regard, multiple programs are considering increasing transnational education by mobility learning, scholarships and upgrade the educational process by introducing ITCs. It follows therefore that the central objective of the Europe 2020 strategy to transform the EU into the most competitive economy, the level of education is a priority.

As stated, the high level of education produces positive effects on civil and economic society. Permanent adaptation to social changes and monitoring the education capitalization in the economy and active involvement of the private sector in education, remain tasks to be performed throughout the national existence.

References


