

THE DETERMINANTS OF HUMAN CAPITAL IN ROMANIA

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Human capital, defined as a sum of knowledge, abilities and skills that may be used in a productive way, plays an important role at the growth and development of a country. For this reason, the purpose of this article is to analyze the way in which its five determinants – formal education, professional experience at the workplace, informal life style, the country’s specific and the level of health – are influencing the Romanian stock of human capital. In order to fulfill this objective we used the information existent in the specialized literature and the results obtained in a research conducted by us on a representative sample of 300 persons from the North-Eastern part of the country.

Key words: human capital, formal education, professional experience, informal living environment, country’s specific, level of health

Introduction

Adam Smith noticed, in the very beginning of the Wealth of Nations, that the abilities resulted from the specialization obtained through the labor division lead to a significant increase in the productivity of the other factors of production. Analyzing the importance of the knowledge, abilities and investments in accumulating these factors, authors such as J.B.Say (1821), J.S. Mill (1848) or W. Roscher (1878) have created the premises of a new concept that, lately, has revolutionized the growth theories. A first step in this direction was made by Irving Fischer (1897) that included workers in the definition of a firm’s capital. The beginning of the XXth century brings with it many approaches on the field insufficient explored of this subject that seemed to die as many other subjects. Uncertain and ambiguous studies for calculating something that, practically, had not been very well defined (see T. Wittstein, 1867; A. De Foville, 1900; Huebner, 1914; Dublin and LotKa, 1930) placed an idea, relevant into Smith’s analysis, into commonplace. The things are brought to their normal direction by an article of Jacob Mincer, published in 1958 in the journal of Political Economy – “The Investment in Human Capital and the Distribution of the Personal Revenues” – and also by Gary Becker, who published in 1964 the book that have definitely establish the place of the term human capital, even from its title – “Human Capital”. This was the moment when a new stage has opened in the economic theory, a phase that brought different approaches of a subject to which nobody had paid too much attention until then. Human capital, defined as a sum of knowledge, abilities and skills that may be used in a productive way, starts having its own way in the economic theory, gaining a significant consistence through the neoclassical approaches of the growth theories. The introduction of this new factor in the production function of Solow and the developments made by Th. Schultz, Maddison, Barro or Sala-I-Martin have led to remarkable results, which underlined that an increase of the human capital stock generates continuous economic growth rates and this might be a solution for helping economies to surpass the steady state.

There are few elements that, combined, have a significant impact on human capital formation. Considering that the one who has this type of capital is the human being, a complex and social creature, whose evolution is marked by endogenous and exogenous factors, it is difficult to identify all the influences that lead to the accumulation and capitalization of his knowledge and abilities. The theory remarks only a few factors that seem to be more important in this direction: formal education, professional experience at the work place, informal living environment, country’s specific (OECD, 1998, p.12) and level of health. In the present paper, we have analyzed these determinants in the context of the Romanian economy, pointing out the deficiencies or the lack of correlations that impede having an optimal contribution of human capital stock to the economic convergence.

Formal Education

This type of education is acquired especially through the learning system. In Romania, it is free of charge at almost all the levels. Unfortunately, this fact has its disadvantages because it diminishes the marginal utility and the value that a person gives to each additional school year. This is one of the sources of inefficiency of the Romanian education system. The international tests and evaluations are, sometimes, discouraging. The PISA test (that evaluated the knowledge of 15 years old people and their ability to put it in practice) conducted in 2006 put Romania on a dishonorable place 47 from 57 participant countries. Considering the combined schooling rate calculated by World Bank, Romania was on the 70th place in 2007, immediately after South Africa and Egypt. These classifications come to certify something that is easily noticeable into the Romanian labor market, where the specialized workers become more and more rare, in the context that the labor productivity is up to forth time lower than the European average. These effects occur after a long neglect of the educational system, not only from the financial aspect but also from the institutional reform point of view. The major changes necessary to pass from a general theoretical system to a more specialized one, focused on the market demands, are waited for a long time. Consequently, the resource allocation was made according to principles hard to identify. The primary and the secondary education has been neglected long time due to the fact that it was wrongly considered that a greater importance given to the tertiary education would increase the human capital stock. Authors such as Judson (1998), Lee (2001) or Lall (2001) have noticed, in some empirical studies conducted in countries with high growth rates and convergence levels, that, next to the dimension of the resources allocated to education, very important it is their distribution between the educational levels. The developing countries need medium skilled labor force, able to use and reproduce the technology created in the developed states. Emerging countries do not have the financial and technological capacity in order to sustain innovative fields with highly skilled workers. Romania is in this last situation. Yet, the educational system has continued producing university graduates that the economy could not absorb. Consequently, a large part of them have emigrated, looking for a proper compensation of their contribution to the production system. The effects of such a tendency were very important and diverse: the resources spent by the state for the school years, that could have been used for an additional allocation in the primary education, were lost; it has narrowed the medium qualified labor supply through the encouragement of the easy access at the superior levels of education that are considered to be a passport to emigration; it was lost the potential national income that could have been created by those who had emigrated; the population started to getting older, due to the fact that those who are more tempted to emigrate are the young people, etc. There are various ways to prevent these problems, starting with matching the specializations to the market demand and finishing with a substantial reduction of the public financing of the tertiary education. Actually, we consider that this last solution would solve a great part of the emigration problem. First of all, the private cost of an additional year of study would determine a person to make a correct judgment in terms of opportunity costs, rationally analyzing if the additional time and money allocated to education would be repaid by the extra future incomes in the context of an internal market that does not need a great number of highly qualified specialists. Secondly, giving up the tertiary education will diminish the tendency to emigration and will keep into the country the human capital at an optimal level. It is easy to understand that, instead of creating highly qualified labor force that would be lately unused or lost through emigration, it is better to extend and intensify the medium education, which could be easily assimilated by the internal market. In this way it could be also stopped the emigration. Thirdly, a reduction of the spending with the tertiary education would allow the reallocation of the resources in the benefit of the first two levels, primary and secondary, and, in the same time, would increase the quality of education.

Professional Experience at the Workplace

There are various options to increase the human capital stock, two of them being, as we have seen, raising the basic level for all the workers and having a reduced number of highly skilled workers. The first solution is considered to be optimal for the developing countries, while the second one might be used in order to gain innovation. Education is viewed as an investment. Lucas (1988) estimated that the educational effort is indirect related to the preference rate in time and direct related to the school efficiency. This is why workers have to rationally choose between the time spent with production and the period spent with education, giving up on one of these activities. Yet, there is an alternative that reduces the necessity of the substitution through the factor time and which leads to the endogenous knowledge accumulation, into the productive act. It is about the learning-by-doing process. Unfortunately, in Romania this process is a

concept very vague defined and applied, even in the case of the multinational corporations' subsidiaries. In a statistical study conducted by us on a sample of 300 persons from the North-Eastern part of the country, in October-November 2007, only 3,5% of the respondents had participated on specialized courses organized by companies and only in 56,5% of the cases the courses had been financed by the employer. This aspect demonstrates that the interest of the Romanian economic agents for increasing the stock of human capital is reduced. The attitude was also encouraged by the relative abundance of the highly skilled labor force that existed until the free movement of persons in European space. Meanwhile, firms avoided spend money for training the employees since they did not have the certainty that they would not migrate to other companies or markets. Nowadays, the internal market is lacking labor force, fact that impose a more careful personnel policy, focused on acquiring new knowledge and skills specific for the firm and for the job. The costs that a company may have with the training of the employees are benefic on medium and long term, generating an increase of the labor productivity, a prolongation of worker's productive period, making him devoted, and a prevention from the underemployment situation. A good example is that of the German or Japanese firms, which prefer hiring young labor force, without experience, but with a good level of general knowledge; lately, they invest substantial sums in training this people in order to acquire the proper experience. The policy is to offer identical wages for similar jobs, fact that prevents loosing the employees. There are various and complex remunerating forms that keep alive a high interest for assimilation and improvement. The idea that the trainings offered by firms to the employees are, actually, investments similar to those made in the technical capital is not exaggerated at all (Lee, 2001). The researches conducted into dynamic economies such as Malaysia, Indonesia, Mexico or Colombia revealed the fact that the trainings and the job specialization have led to a substantial growth of the productivity. These experiences might be a bench-mark for the Romanian companies in achieving the competitiveness goal.

Informal Lifestyle

The evolution of the man up to the adult position, with social responsibility, is a complex and long lasting process. A very important role is played by the family and by the community in which he develops, in which he identifies and follows various models, acquiring values and abilities. The theoretical approaches regarding the role played by the family come from two directions: either it is considered that the human capital accumulation is fostered by the information remittance, experience and education between generations, from parents to children (Bordieu, Putnam), or it is assumed that the family relations are limiting the extension of the contacts to the society level (Cox, 1997; Fukuyama, 1995; Latham, 1997), reducing the accumulation of new experience. However, parents have a major impact on the children's education. It is difficult to quantify the way in which the family status, the religion or the ethnical origin are influencing the human capital accumulation (Bowles, 2001). Yet, this often happens. It was noticed that in families in which the parents have tertiary education the children will tend to finish a greater number of school years (Harmon, Oosterbeek, Walker, 2000). The explanation is a psychological one: as children, they are trying to imitate their parents and, lately, as adults, they develop abilities through the interaction with those from the group they belong (Borjas, 1995). It was demonstrated that more than 62% of the cognitive abilities and more than 49% of the intelligence are inherited from parents. The formal education has an impact of only 25% from the global abilities of an adult (Zak, 2002). This is why the family is considered very important in accumulating human capital at an individual level.

The Romanian society is focused on family that has a major role. Consequently, the center of the economic life is inside the family and any association outside it becomes difficult. In our study, 55,9% of the respondents consider that the closest relatives are the most trustful associates in a business, of course, if this association is necessary. Most of the people do not choose an association, considering that the partners are a source of misunderstandings and altercations. Therefore, it is not surprisingly why the most frequent form of association in Romania is the limited company, where the number of the partners and the responsibility of each of them are reduced. As a proof, from a total number of 1.691.238 trading companies registered in the Romanian Trade Register in November 2007, 1.180.676 firms were Ltd. If at these companies we add 437.048 family associations and natural persons, we find out that 95,65% of the Romanian economic agents start from the principle of a minimum association.

Our study also reveals that the family has the highest trust degree from all the social, political and economical institutions, being classified even before the church, with a score of 4,21 from 5 points. This close relationship around the family points out an important advantage of respecting the traditional values, of forming and transmitting a great part of the abilities, but, meanwhile, it may be also a disadvantage. The

Romanian family is constituted around the parents, the relationships being based on respect and permanent support. The children are protected up to advanced ages, the parents often allocating their resources in order to ensure them a higher life standard. The major objective of a family is that their children succeed on the labor market, a way to achieve this goal being the increase of the educational level. This protection, although it has some good aspects, does not make the young person being responsible and does not force him to identify his own ways of evolution. The access at the financial resources that are not the result of an accumulation through individual effort deforms the efficiency of resources' allocation. This is why the choices are often wrong and lead to readjusting additional costs. The life options are limited to those identified or suggested by the family, while a greater view outside the family would amplify the number of possible choices. Consequently, although the knowledge and the value system of the young people are well defined, there is a lack of experience and of accommodation ability that will deeply mark his further evolution.

The community is also an informal environment in which the younger develops. The values that are promoted inside the community play an important role if we consider that a child spends, daily, a lot of time outside the family and the school, playing with other children or doing some other activities. The community's ability to involve the young persons in entertaining or creative activities, in which the competition and solidarity spirit develops, will be lately repaid through an additional stock of human and social capital. Unfortunately, the association ability in the Romanian society is very unstable. We found out that it derives from a low level of trust between people and among individuals and institutions. This makes difficult establishing contacts and encourages the individualistic action. There is a large range of factors that influence the ability of trust: the level of culture and civilization that is still at an incipient stage of evolution, the lack of maturity and stability of a "social contract" that is in a negotiating phase, the customs and social norms that, especially in the rural area, have archaic characteristics, or the religion, mainly orthodox, which stimulates expiation through abdication and abstention.

The country's specific

The factor which shapes the large context of creation, formation and accumulation of human and social capital is the country's specific. The impact that it has on the possibilities of acquiring new abilities and knowledge depends, mainly, on the organization of the educational system; this directly refers to the professional specializations possible to be followed by an individual. Consequently, the educational offer of a country has to reflect its socio-economic reality and to consider the internal demand of specialized people for the industrial developing sectors.

Another factor that has a great impact on the human capital is the governance model. The Romanian long communist period has significantly influenced the way the people think and act, fact that made the transition process towards a market economy long and difficult. Therefore, the tensions that have occurred between the various political ruling parties during the almost 20 years of transition, together with the legislative system that was deprived of transparency, clarity and persistence in time, have determined population to trust the least the Parliament and the Government, of all the public institutions. Sobel (2002) considers that those that are willing to trust the others will also trust the political institutions. As long as a person considers the others potential tricksters, he will see the Government with the same eyes; our study revealed that this aspect is well demonstrated by the Romanian case. But, if each member of a society believes that all the others obey the authorities, then he would accept easier their decisions; in this way he would exempt the state from assuming some coercive costs on citizens, in order to respect the laws. Robert Putnam (1993) underlies the fact that the efficiency of the public institutions is significantly influenced by the civic engagements of the citizens. Being based on norms of the civic behavior, these engagements cover a large scale of attitudes and beliefs, starting with offering material and affective support to a friend and ending with those traditions that appeared because of the religion and cultural environment. A study conducted by Kilkenny, Nalbarte and Besser (1997) shows the fact that, indeed, the involvement in the community' benefit has a positive impact on the economic and political success. Moreover, the norms of the civic behavior may foster the accumulation of human capital due to the effect that they have on the knowledge and ideas exchange, aspect that is considered by some analysts as a side of the cooperation behavior. So, the cooperation is direct related to the process of obtaining new abilities and skills or, in other words, when there are strict rules of civic behavior, there is also a strong tendency of changing ideas and information and, as a consequence, the knowledge transfer will be much more ample.

Health

Regarding the level of health, it is demonstrated that, on one side, the level of development of a country is influencing the health status that, on the other side, has a significant impact on the human capital stock. So, as a country is more developed, the people are better nourished and healthier, fact that positively influences not only the possibilities of acquiring new knowledge but also the work abilities. There are various approaches related to the indices of the health status, most of which classify them in two categories: input and output indices. Into the first group there are not only the general indices – the overall level of health declared by the population in the surveys, the average level of life expectancy at birth – but also the specific ones that include: the infant mortality rate, the incidence of the low birth rates, the incidence of the overweight persons, the incidence of the diabetic people, of the chronic pains, of depression, cancer, heart diseases, suicides, accidents, or of AIDS, the absence rate at job, the health level and life expectancy on socio-economic groups, the financial insecurity risk caused by diseases and the incidence of the persons with limited activity. The input health indicators refer to the quality and the accessibility of the healthcare system, the medical knowledge level, the public political decisions that influence the life, the environment factors with impact on the health and the individual lifestyle. In Romania, despite the fact that, nowadays, the sanitary system confronts with different problems, mainly caused by the changes that took place on the social and political level after 1989, which influenced the way of implementing the reforms, the majority of the respondents of our study (69,8%) consider that they have a normal, good or very good level of health. Despite this, it is noticeable that the mortality rate is increasing, especially the infant mortality rate, surpassing the birth rate; meanwhile, the fertility rate is continually decreasing. To these phenomenons it adds the general tendency, noticed into all the European Union states, of aging population. Analyzing the factors that influence the health status in Romania, we may note that, together with the genetic, physical and social causes, the behavior has a significant impact on the welfare and health level of the people. The way of living, reflected in the nourishing habits, smoking or in the increased consumption of alcohol, correlated to factors such as the high blood pressure, the high cholesterol level or the overweight situation are positively influencing the premature death rate, especially through cardiovascular diseases and cancer.

Conclusions

The governance model has a very important influence on the Romanian human capital. The communist period had significantly influenced the way people think and act, fact that made the transition process towards a market economy long and difficult. Both the educational and the healthcare system were neglected for a long period of time, not only from the financial aspect but also from the institutional reform point of view, fact that had a strong impact on the quality of human capital. Some of the solutions that might be adopted, in order to remove a part of the various problems, are focused on matching of the specializations to the market demand and on the substantial reduction of the public financing of the tertiary education. Meanwhile, in the healthcare sector, the solution would be to increase the efficiency of the public health spending. Moreover, due to the fact that the internal market is lacking labor force, it would be necessary a more careful personnel policy, focused on acquiring new knowledge and skills specific for the firm and for the job.

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