Education as a Factor in the Development of Human Capital Resources: Case of Latvia

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Abstract We live in an era when in many countries worldwide, including Latvia, the modern global developments have led to further establishment of new living standards and human capital formation appropriate for this particular time. The most fully human capital can be characterized as follows: it is the congenital, created as a result of investments and saved up certain level of health, education, skills, abilities, motivations, energy, cultural development as specific individual, group of people, and societies in general which are expediently used in this or that sphere of public reproduction, promote economic growth and influence the size of the income of their owner. The human capital, being part of the cumulative capital, represents a combination of the elements making it, i.e. has the internal structure. The goal of the research is to identify human capital resources which affect a person's ability to successfully integrate into the labor market. Research methods are the analysis and synthesis of scientific literature, logical and comparative analysis.

Keywords Development of Human Capital, Education, Availability of Higher Education, Resources of Human Capital

1. Introduction

Changes in the economy which is based on knowledge are happening so fast that employees need to constantly acquire new knowledge. Companies can no longer rely solely on recent university graduates or those who first enter the labour market as on the key source of new skills and knowledge. On the contrary, companies need employees who are willing and able to upgrade their competences throughout their lives. Nowadays, in particular, when the population is aging, the number of school-age children and students from 18 to 24 years is shrinking. According to World Bank estimates, the largest decline by 2025 is expected in higher education, where the number of students is projected to decrease by 40% [3]. One of the most essential prerequisites for successful economic growth is an educated and highly qualified

worker who constantly seeks to improve his/her professional skills and knowledge.

Education in Latvia does not cover all groups and there is no equal access to education (especially to higher education). International testing of schoolchildren in mathematics and natural sciences, especially the assessment of their skills to apply knowledge in practice, showed that Latvia ranks 15th among the EU countries [4].

The role of improved schooling is a central part of the development strategies of most countries and of international organizations, and the data show significant improvements in school attainment across the developing world in recent decades. The policy emphasis on schooling has mirrored the emphasis of research on the role of human capital in growth and development. Yet, this emphasis has also become controversial because expansion of school attainment has not guaranteed improved economic conditions. It appears that both the policy questions and the research questions are closely related to the measurement of human capital with school attainment [5].

All over the world, availability of education to the general public is considered one of the most important goals in the national socio-economic development. In economically developed countries, accessibility to education is not regarded as an end in itself, but an important factor of ensuring social stability. Equal access to education contributes to the country's overall economic growth and a stable and harmonious development of the society.

During a socio-economic recession, the impact of education on work salary and labour productivity can be reduced by the impact of external factors on economic growth. However, investments in education are long-term investments, and they can repay costs in a longer time period as, for example, physical capital [1]. Human capital is more productive if other members of society are more educated.

2. Relevancy of the Research

Accessibility to education, including accessibility to higher education, is one of the keywords of education policy and management, as well as education development and

sustainability in the 21st century. In her study, R. Kaša defines it as a state “when equally qualified students have equal opportunities to study at a university, regardless of their socio-economic conditions” [6]. As pointed out by the Latvian scholar, doctor of philosophy O. Pavlov, relevance of the problem of access to education cannot be denied, especially in relation to the equal right of individuals to study. Referring to E. Durkheim, O. Pavlov indicates that absolute equality is not possible, yet there is a need for “equal opportunities at the start”, which not exclude supports for talented young people [10]. It is established that equality issues are important also as regards the tuition costs and state loans, where a thorough reform is required, which is expected shortly and which will affect the students of universities in Latvia.

As both Latvian and international higher education researchers point out, the concept of accessibility to higher education (as an ability to consume educational services) is directly subordinated to three major concepts of higher education functioning, development and sustainability: quality of education, economic efficiency of education and funding of education [12].

The analysis of research on access to education can identify a number of factors related to accessibility to education, including **accessibility to higher education**:

1. Institutional accessibility to higher education: a set of institutional and material and technical factors, which provide availability and further operation of higher education institutions, enabling them to offer their services to the interested parties – the prospective students.
2. Financial affordability of higher education: a set of financial resources that are directed to higher education, making it possible to offer the prospective students tuition-free (budget-funded) or partially fee-based higher education studies, as well as the funds that a prospective student is entitled to receive or borrow in order to study at an institution of higher education and cover higher education tuition costs (study and student loans).
3. Legal accessibility to higher education: a set of statutory regulations which grant and guarantee the right to study at a higher education institution for certain population groups, actually providing equality of higher education opportunities to the population and eliminating possibility of discrimination of the prospective students (for instance, by gender, age, origin, social class, etc.).
4. Physical accessibility to higher education: attributed to location of the network of higher education institutions (for example, most of the higher education institutions in Latvia are based in the capital Riga, while outside Riga there are 14 higher education institutions and a wide range of higher education institution branches, offering their higher education services as close to one's residence as possible), as well as the availability of such institutions to different groups of the population (for example, individuals with special needs).
5. Intellectual accessibility to higher education: correspondence of higher education content and quality compliance to previously acquired knowledge and skills (educational attainment) and capabilities of certain social groups (mostly secondary school graduates), while providing consistency and continuity of the study process, as well as methodical and informational organization of the appropriate higher education process.

It should be noted that the absolute accessibility to higher education has not been achieved in any country in the world. Such accessibility is the ideal state of higher education development and sustainability, which should be gradually put into practice. Education is the most important capital of any individual, and the keystone to success of any society is the ability to use it.

In 1992 Professor G. Mankiw of Harvard University used the percentage of the working-age population what is in secondary school in order to measure human capital, and he proved its close correlation with a person's income [8].

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The human capital plays a vital role in both market and non-market activities. Education not only has a positive impact on productivity and income in the labour market, but also helps improve a person's overall ability to perform non-market activities and enhance his or her standard of living. These non-economic benefits of education are no less important than its impact on the operations in the labour market and economic success, for individuals and whole countries.

In view of non-material character and multidimensionality of the human capital, various authors freely formulate concept of the human capital and place ambiguous emphasis on its separate components: one are inclined to focus attention on the functional party of the human capital, i.e. on its ability to bring in the income, others give its intrinsic characteristic — as a form of a personal factor of production [2].

Defining issues, training, development and use of human capital has been a constant concern in economic and social thinking and practice, from classical economics and continuing with post-war approaches. Since the '60s, the issue of human capital has captured the attention of

academics, practitioners and specialists in economic and social policy [7]. Study of human capital has become so, new dimensions and meanings.

3. The Calculation of the Volume of Human Capital in Latvia

One of the research tasks is to calculate the amount of human capital potential, which includes the resources related to education, professionalism (qualification), information and social capital. It is also planned to analyze the opportunities for effective implementation of the accumulated capital in order to reach a relatively high level of material income and a certain social status position. As a thesis statement of the research, the author has raised the thought that the development of each resource increases the socio-economic value of human capital, enabling more flexibility to adapt to changing external conditions.

In order to achieve the objectives set out in article, the author made a secondary analysis of the study "The reasons for unemployment and social exclusion", which was carried out by the Ministry of Welfare of Latvia [7]. The target audience consists of all residents of Latvia aged from 15 till 65 years old. The sample was used tiered stratified random statistical sampling method. Particular research was made among 8023 survey.

Data are obtained in 2010 and contain the following information:

- gender;
- age;
- residence (town, city);
- region;
- education level;
- self-assessment of professional level;
- structure of a family;
- income and expenses;
- sources of obtaining information (books, TV, Internet);
- visiting theatre, museums, exhibitions, concerts, cinema, etc;
- living conditions;
- self-assessment of financial position of a family;
- receiving the help, using social communications (material grants, medical care, education, employment).

The overall and professional level of a person's education determines the extent of the *educational resource*. A significant accumulation of the educational resource improves learning skills, increases the person's ability to compete, thereby expanding his or her suitability to the labour market, allows, if necessary, to change the occupation or quickly learn a new specialty and enables correct assessment of the external environment, which is especially important in the case of environmental change, and the development of a rational behaviour strategy.

The professional (qualification) resource, unlike education, refers to the level of professional skills and abilities. If it is high, a person can be competitive in the labour market within his or her specialty, even if he or she does not have a high educational resource (for example, secondary vocational education).

The significance of the *information resource* level is determined by the fact the employer is interested not only in the employee's professional skills, but only in the company's internal cultural challenges and the employee's personality traits, which are formed under the influence of social and cultural environment. In addition, the enhancement of the information resource enables the person to use a larger number of information channels to locate the needed data, for example, when search for a job, thus increasing the probability of success of the discovery.

The social capital resource is characterized by an individual's ability to benefit from the advantages of the existing resources, which are derived from effective interaction with the external environment [14].

1. To determine the value of the non-material resources, the author used methodology, which is used for the calculation of the Human Development Index (HDI) [11]. The study's methodology was modified and adapted to the author of a study carried out, in order to fulfill the task.
2. The author has combined the aforementioned intangible human capital resources into a composite indicator, whose indexes cover the entire range of non-material possibilities of adjustment. Since the development of each resource is gradual, it is possible to set some intervals that characterize the development level of each resource. On this basis, it is proposed to assess the human capital in points, where "1" means the minimum level of the resource development and "5" is the maximum level.

The following types of intangible resources are included in the author's model of human capital structure:

- Educational resource;
- Professional (qualification level) resource;
- Information resource;
- Social contact resource.

In terms of numbers, each of the set resources in given a value [1-5], which is determined on a case by case basis for each of the resources under the methodology developed by the author:

Educational resource (ER):

1. education level is lower than secondary;
2. general secondary education;
3. vocational secondary education;
4. higher education (includes individuals with the first or second level higher education);
5. higher education (includes individuals with a Master's or Doctor's degree);

Professional (qualification) resource (PQR) base value

[1-4 points] is determined based on the self-assessment of professionalism:

1. no qualification;
2. qualification that does not meet the market demands or lack of experience;
3. qualification is in demand;
4. high qualification in a very marketable field;

An additional point is given if there is work experience abroad.

The calculation of the **information resource** (IR) value is conducted using a two-step methodology. A respondent obtains a minimum level of information when being involved in reciprocal social relationships, which is characteristic of any person, although in varying degrees. If the respondent only uses this source of information, the IR = 1. One point is awarded additionally for each of the following sources of information:

- regular reading (various print media);
- regular watching on television for information;
- going to the theatre, cinema and museums;
- working with computers, databases and the Internet.

The lowest level of the **social capital resource** (social contacts) automatically involves all people, simply because they are nationals of their country and they are entitled to the minimum national social support (unemployment benefit, utility payment subsidies, etc.). If the respondent receives support only by cooperating with relevant social institutions, the social communication resource (SCR) = 1.

- 2 – contact with social institutions and acquaintances;
- 3 – social and professional contacts;
- 4 – all the above and belonging to a public organization;

5 – having a family, social and professional contacts, belonging to a public organization, involvement in educational activities.

Therefore, the human capital value ranges between [4 - 20].

Figure 1 shows the distribution characterizing the extent of the intangible human capital resources of Latvia's population.

It stands to reason that the individual human capital is characterized not only by the value of each intangible resource, but also by the extent to which resources have been developed as a whole. An important characteristic of the human capital is the number of the most advanced and the most underdeveloped resources. The author believes that the larger is the number of the most developed resources, the better is the socio-economic adaptability of the population, making it possible to create a successful life "scenario" based on such resources.

The most developed resources are those whose assessment is equal to 4 or 5, whereas the worst developed resources are the ones that are rated at 1 or 2 points. As seen from Figure 1. 20% of Latvia's residents have assessed their human capital value at 4 and 5 points, and about 42% of the population have evaluated their social capital resources (contacts) at 1 point.

In examining the first thesis statement of the research regarding the role of education in accumulation of the human capital resource and its potential growth, the author has used the above method, according to which each of the set resources receives a value [1-5] on a case by case basis for each of the resources. The calculation yielded the following results, which are in provided in Table 1.

Figure 1. Extent of human capital resources of Latvia's population (developed by the author)

Table 1. Average value of the human capital resources, depending on the educational resource value

Educational resource value	Average value of the human capital resources		
	Professional resource value	Information resource value	Social contact capital resource
education level is lower than secondary	2.10	2.00	1.70
general secondary education	2.40	2.60	1.90
vocational secondary education	2.70	2.70	2.00
higher education (1st level, Bachelor's or Master's degree)	3.20	3.40	2.20
Average value	2.70	2.70	2.00

It is possible to reveal the following regularities:

- the respondents whose educational resources have a value of 1 or 2, have a lower than average value as regards their professional (qualification) resources, information resources and social contact capital resources;
- the respondents with vocational secondary education (3 points) have a close to average level of development of other resources;
- the respondents holding a diploma of higher education (4-5 points) are described as having a different level of development of human capital resources, which far exceeds the average assessment, while the impact of the developed educational resource on the possibility of accumulating other resources is various.
- the outlined role of education in the development of other human capital resources determines dependencies between the role of education and human capital potential size.

Higher education increases human capital and hence productivity, because a person with a higher education, on average may lead to greater added value than a man without it and also receive higher pay [9].

Higher education level always means lower levels of unemployment and poverty and respondents with higher education are characterized by a higher level of development of human capital potential, in particular, has developed a professional (3.2) and information (3.4) resources.

Author has come to a conclusion that 51% of the respondents who have completed higher education are distinguished by a high assessment of the information resource. If a person's education level is lower than vocational secondary education, it reduces the chances to join the ranks of active users of information and cultural benefits. Raising the level of education directly affects also the expansion of the social networking capital, which

broadens the opportunity of successful socialization. Studies have demonstrated that higher education contributes to accumulation of other intangible human capital resources and growth of its potential and raising the level of education directly affects the development of all human capital resources, strengthens the social capital and extends the chances of successful socialization in the society.

4. Conclusions

At the end of the 20th century and the beginning of the 21st century, very dynamic development of technologies took place in the world and also in Latvia. Investments in human capital, especially in a highly qualified work force, play a major role in this development. Human capital is the totality of knowledge and skills which have been accumulated during life through education, training, and work experience and which influence labour productivity. Acquiring new skills is only one of the ways of investing in human capital. Investments in health can also influence human capital. Employers can invest in buildings, techniques, etc. in order to measure the rate of return from investments; human capital has to be measurable and comparable to other investments. Consequently, education and training are investments in human capital which are undertaken in order to receive as high a return as possible.

Education and training is now a global concept under which they are meeting all aspects of education and training in the formal, non-formal and informal system.

In current conditions, education, through its functions, is an important pillar of economic and social development, as far as meeting the requirements of society and to the extent that is capitalized by using the skills and qualifications acquired through learning. For this reason, education and training is enjoying a major concern and a priority position in the development programs, particularly in developed countries, in close relation to economic, demographic, social and political processes.

The right to education is provided in the Universal Declaration of Human Rights.

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