

HUMAN CAPITAL AND SUSTAINABLE DEVELOPMENT**Lilia SAVA**Technical University of Moldova
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vtirsu@gmail.com**Abstract**

In this paper was analyzed the concept of human capital in the context of implementing the principle of a sustainable development at global and national level. The basic purpose of the research theme is presented in the form of ensuring the need for the development of the labor force in an efficient form in the Republic of Moldova, taking into account the competitiveness and sustainability in this sphere of influence. The sustainable development of a country can be perpetuated and ensured only by increasing the quality of human capital, which is a prerequisite for achieving the basic goal over time, while being a primary factor strictly necessary for increasing its economic capacity. The research methodology includes a diverse set of methods such as: induction, deduction, comparative analysis, synthesis, scientific abstraction. Thus, human capital is identified as an indispensable factor for the sustainable development, where its accumulation is defined as the main condition for progress and innovation, as means of reducing the economic deficit, as a precondition for a more optimal transformation of natural reserves into production capital.

Key words: *sustainable development; human capital; education; ecology.*

JEL Classification: *O15; E24, J24.*

I. INTRODUCTION

Human capital is becoming a dimension of major importance in the development of entities and an increasingly powerful driving force for economic growth, expanding the efficiency and competitiveness of the national economy, which represents one of the most important factors in national security and welfare. The upward trend in human capital depends mainly on the development of the social sphere, in accordance with the evolution related to various fields as scientific research, education, healthcare and at the same time considering the reduction of social inequality. Sustainable progress involves an increase in productive and natural capital, but the development of human capital is no less important, because the main wealth of any society is represented by its human resources. Ultimately, the use of main productive forces and its efficiency becomes one of the most relevant condition for a sustainable development, in the current global requirements.

In the context of the national economy of the Republic of Moldova, the last decades' experience of the transition from a centralized economy to market economic relations has shown that full market freedom without any state regulation creates and intensifies disproportions and contradictions in the development. The growing differentiation of socio-economic development indicates the absence of an adequate national policy in this area. As a result, the gap in human and economic resources is growing, leading to an even greater increase in economic and social inequality of the population. During all this time up to the present moment, the social differentiation that was caused by the reforms that were implemented by the governments, was felt at maximum intensity. It should be noted that even today, the incomes continue to decline within the group of the poorest citizens, which also leads to further deepening of the contradictions.

II. LITERATURE REVIEW

It is well known that the basis of the sustainable economy is the accumulated human capital, which is also considered the ground of the sustainable socio-economic development of the contemporary community. However, we need to understand that only high-quality human capital represents a factor that sustains the growth and development of any region, country and of the whole economy. The requirements of the present generation fit into a whole the meaning of the term sustainable development, requirements that need to be fulfilled in such a way that will not compromise the needs of future generations. In other words, the implementation of various types of resources represents a sustainable development, taking to account at the same time, that the streamline use of resources depends primarily on human potential.

Concepts describing human and social capital have become widespread in recent decades. Their relevance is explained by the fact that today, against the background of complex and contradictory social, political, and economic relations, the focus is more and more directed towards such qualitative substances as trust, culture, progressive and modernized institutions representing the integral components of social progress.

Significant structural changes are needed in the quality of the workforce according to social and environmental standards at all levels of economic management, which are appropriate in implementing the sustainable development paradigm. Under the conditions of a strong market competition of economic entities, ensuring economic development and a stable economic dynamic involves the progress and growth of human capital, while the decisive factor in economic success is represented through qualitative characteristics. It should be noted that it is impossible to maintain national competitiveness, including the one at regional level, without saturating the economy with labor resources that meet the requirements and have adequate modern skills and abilities.

In regional and foreign economic science, different definitions can be identified for the human capital whose quality is increasingly discussed. As an example, researchers claim that some countries must deal with some highly complex economic and social issues, particularly in countries with economies in transition, which can affect the unskilled labor force, the women and young population (Lojko, 2008; Maliteva, 2014).

The most remarkable representatives of the "Human Capital" School are T. Schultz and G. Becker. Schultz described the notion of "Human Capital" in the most generally known way, considering the accumulated costs for the reproduction of labor within the country, costs incurred from government spendings related to social needs, production costs, as well as family budgets, without analyzing the source of origin. According to G. Becker, human capital is the stock of knowledge, skills, motivations that everyone owns (Becker, 1994; Schultz, 1971).

Within the research of contemporary authors, the processes of human capital management is classified into the processes of its formation, development and use. At the same time, the socio-economic institutions of the region implement the process of human capital formation, during which a person acquires knowledge, skills and abilities, the process allows the realization of the potential labor supply on the labor market (Jakimovski, 2000:41-49; Angheluta & Badea, 2018:315-326).

The concept of human capital is broad and consists of various components. Thus, in terms of sustainable development, the key factors that compose human capital are education, science, and innovation. In most countries with a high level of human capital development, these factors are considered interconnected, as their integrated and consistent development is the one that contributes to ensuring a dynamic and sustainable economic growth and employment (Armstrong, 2008; Shrader & Siegal, 2007: 893-908).

From those analyzed, we can observe that human capital focuses on four key attributes, such as:

- employability of the individual;
- personal skills and their efficiency;
- adaptability of the individual, as well as its flexibility;
- organizational skills and ways of their development.

There are various views that argue the interdependence between human capital and sustainable competitive advantage, along with an improved organizational structure. Therefore, all these debates focus fundamentally on individual and organizational performance (Shrader & Siegal, 2007; Maimunah & Lawrence, 2008).

At present, human capital must be considered an important resource for sustainable socio-economic development. The particularity of the problem regarding the human capital formation is generated by the needs and specifics of the country's development and without a sufficiently qualitative and quantitative human capital, it is impossible to assure its development and the rationally other existing resources (Figure 1).

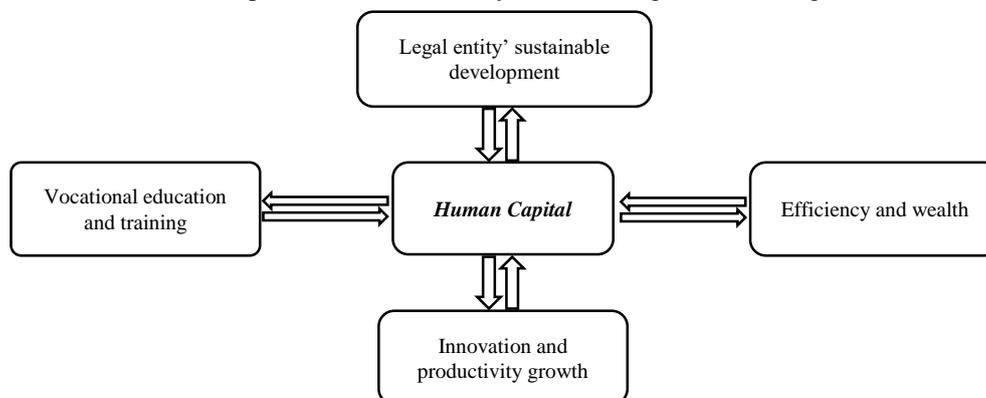


Figure 1 - The interdependence between human capital and sustainable development

Source: Authors compilation

Thus, the urgent task is to promote a development strategy that will ensure the growth of human capital and

long-term competitiveness. The growth of human capital is possible only under the conditions of an efficient management of its formation, development and use. Thus, within the context of global growth competition for intellectual resources, human capital is becoming one of the key factors for the sustainable economic growth. These circumstances call for comprehensive decision-making to produce new resources in the country in order to ensure sustainable socio-economic development and, consequently, to achieve a higher standard of well-being and quality of life.

III. METHODOLOGY

The research approach is theorized, as it focuses on the formation of a new vision on the human capital notion in the context of a new economic paradigm of sustainable development, while the starting points that have facilitated the emphasis on sustainable human resources are delimiting the problem of research, analysis of the state of knowledge relevant to the research problem and the establishment of the hypothesis. In this context, the authors apply a set of already validated knowledge to study the interconnection between sustainable development and human capital, considered by authors to be essential components of the theory of contemporary economic growth.

This scientific approach underlines the main objective for highlighting the research currently available on the relationship between sustainable development and human capital and to identify the contextual trends that mediate and moderate this relationship in the conditions of the national economy. The hypothesis is formulated based on the results presented in the literature review section and states that one of the basic pillars of sustainable development is human capital. Also, during the research were applied: interpretation of the results described in the literature, theory of depleted resources, comparative analysis, synthesis, and scientific abstraction.

IV. RESULTS AND DISCUSSIONS

The results of the study confirm our hypothesis that, as the complexity of the connections of the world economy increases, specialists have felt the need to redefine the concept of sustainable development in terms of human capital. This concept was further developed by incorporating in its essence the most modern skills, qualifications, and experiences, which ultimately aim to raise the innovative quality of human capital and place it at the center of sustainable development, our results showing that capital is really effective in improving any country's performance.

To assess the human capital, there are used some indicators that include world-ranking data. Their peculiarity results from a high role of socio-economic development qualitative indicators determined by experts, which ensure the identification not only of leaders by results, but also the premises of this leadership.

The World Economic Forum annually publishes the report "Global Competitiveness Index". This report classifies countries following the concept of business development and their capacity to compete in the market and the power of attracting potential investments. The 2019 report is about 141 countries. The ranking is based on publicly accessible statistics gathered from international organizations, as well as the results of the Executive Opinion Survey of the World Economic Forum. Each country is described from an economic point of view, with the presentation of detailed conclusions based on a specific ranking and the description of the competitive advantages and disadvantages that have been identified and used in the calculation of the index. The latest version of the country classification in terms of business competitiveness was launched in 2019 (Schwab, 2019: 390-393). Thus, Moldova obtained 56,75 points out of 100 in the Global Competitiveness Report 2019 published by the World Economic Forum (Figure 2).

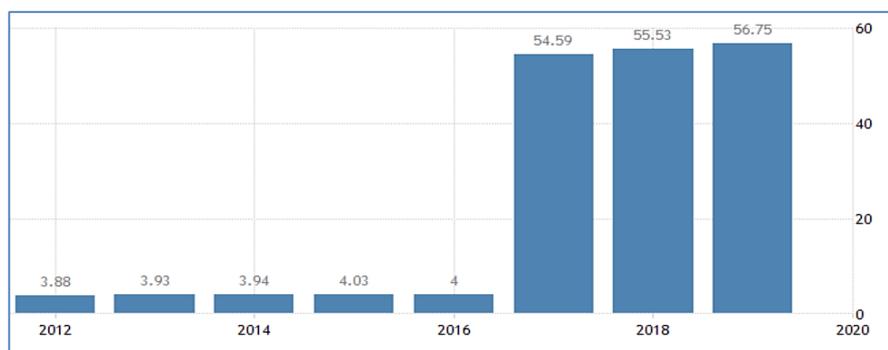


Figure 2 - Moldova Competitiveness Index

Source: <https://tradingeconomics.com/moldova/competitiveness-index>

Therefore, we observe that although in recent years there has been an increase in these components that

positively characterize us globally, still those 57 points out of 100 points show the need to intensify efforts to perform, including the segment of human capital quality growth.

Another global key indicator that characterizes the degree of growth as well as the quality of human capital is the human development index that is developed within the United Nations Development Program. Among many other components, it draws a special attention to the life expectancy at birth and the level of literacy of the country's population. Unfortunately, in this respect, the Republic of Moldova in 2019 got a 0,750 human development index, which is below the average of the group of countries in Europe and Central Asia. Within this framework, the Republic of Moldova presents the same conditions of equality and development as Ukraine and Azerbaijan (Table 1).

Table 1. Moldova's HDI and component indicators for 2019 relative to selected countries and groups

	HDI value	HDI rank	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2017 PPP \$)
Ukraine	0,7790	78	72,10	15,10	11,4	13,2160
Azerbaijan	0,7560	88	73,00	12,90	10,6	17,5910
Republic of Moldova	0,7500	91	71,90	11,50	11,70	13,6640
Europe and Central Asia	0,7910	-	74,40	14,70	10,40	17,9390
High HDI	0,7530	-	75,30	14,00	8,40	14,2550

Source: Conceição, 2020: 343-346

The most important for our research is the Human Capital Development Index, which is one of the main global indicators that shows the level of human capital development in various countries around the world, taking to account even the Republic of Moldova. The index was developed and published in the form of a report by the World Economic Forum's analytical group for the first time in 2013 and covered 122 economies of the world. In determining the level of human capital development in the studied countries, 46 indicators were taken into account, grouped into four main groups:

- education and training;
- health;
- employment;
- infrastructure, legal protection and social mobility.

Thus, according to the results of the analysis of different approaches to human capital assessment, it has been identified that the main factor leading to a sustainable development of human capital is education. The world is facing a new paradigm in which intellectual capital is becoming a key driver of economic growth.

Speaking about the beneficial role of human capital in the context of sustainable development, it is necessary to pay a close attention to investments and their role in the continuous development of human capital, which in turn has a direct and positive impact on economic growth. Thus, last year, the Ministry of Finance provided for education sector the amount of 13.5 billion lei out of the total expenditures of 81.30 billion lei, so that the budget for education was higher by 169.4 million lei compared to the funds provided in 2020, although still is considered a small one compared to the countries in the region. Subsequently, 6.1% of GDP were directed to the education system in 2021.

Therefore, educational spending is considered as an investment to increase labor productivity and, consequently, economic growth, even international experience showing that investing in human capital is the most effective factor in achieving economic growth.

For local organizations, investments in human capital are practically not made at all or are made at a rather limited level, the major causes for this behavior being represented by their less favorable financial statements, or by the inability of senior managers, lack of an organizational strategy on human resources development, or lack of qualified personnel to assess employers in terms of professional skills.

Therefore, the major factor that has influence on the evolution of human capital is the investment in the intellectual potential of the staff. Currently, the issue of investing in the intellectual potential of employers and evaluating their efficiency is relevant but is still insufficiently studied in the literature. Investments in human potential can take many forms (Figure 3).

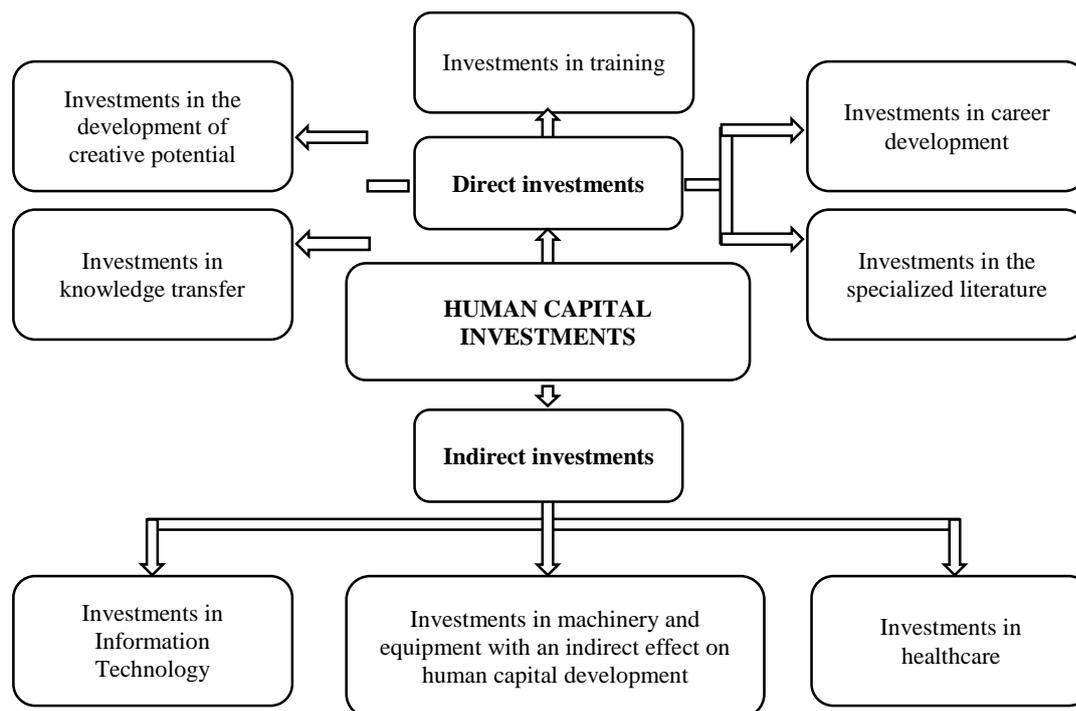


Figure 3 - Factors influencing human capital development

Source: Authors compilations

We state that direct investments in human capital are those that directly contribute to the development of professional knowledge, professional skills, abilities, creative skills and abilities, etc. Indirect investments in human capital are those resources that indirectly participate in the professional development of staff, as well as in increasing the duration of intellectual potential use by the organization. Knowing that the major source of funding in the sector of public education is the public budget, it can be understood why the evolution and formation of human capital are dependent in a direct way on fiscal and budgetary policies that are being promoted, conceptualized and developed by the governments.

At present, it is difficult to talk about the presence of an existing process of managing the formation of human capital in the Republic of Moldova, this process being one of the most important factors for the sustainable growth from the economic and social point of view of a country.

The structure of government bodies lacks the departments that are responsible for the formation and development of human capital, where the government bodies represent decisive factors with direct involvement in the economic evolution of a country. There is no consistency in the formation of human capital. There is also no program-oriented approach to studying the problems of human capital formation. In addition, the income level of the population does not meet the needs of high-quality human capital formation. The role of human capital in the development and transformation of modern society has undergone essential changes over time. Aspects that conclude in the emergence of the urgent need for formation and putting into practice a new concept of transforming human capital from an expensive factor into a social and productive one. In this new paradigm of world community development, human capital has begun to occupy a leading place in national wealth. Therefore, for the sustainable development and evolution of a country from a socio-economic point of view, it is necessary to choose a human-centered perspective of the society's way of life and to create a state system that would be able to ensure the quality of life and the high level of health of the population, in particular to guarantee the effectiveness of human capital formation processes.

V. CONCLUSIONS

Finally, we can conclude that the sustainable development of human capital largely depends on the reduction of social inequalities and support of opportunities for human resources growth and progress as a basis for a sustainable and balanced economy. In actual conditions, the main wealth of any society is represented through its human resources and the efficiency of the use of the most important productive strengths, which are united under the aegis of human capital in modern conditions. Human capital is a major impact factor which over time becomes a main force, while it is progressively strong for the process of economic growth, while simultaneously increasing the efficiency and competitiveness of a national economy, therefore it becomes one of the most important factors, especially for improving the quality of life. Taking to account these reasons, it is necessary to

define the characteristics of investments in human capital and their increase at both economic and macroeconomic level.

Investments in human capital are determined by the following defining characteristics:

- as a result of investments, the intellectual potential of the staff accumulates and has a higher value and a positive impact on the development of companies and societies;
- in various forms of capital and in connection with investments, investing in human capital provides the organization some social and economic benefits; the human resources become more flexible and don't put up resistance to the changes that take place in companies and society, as well as offer the legal entities in which they activate a higher market value;
- the period of return of invested resources is relatively long, but if the motivation of human resources for the work they perform will be longer, then the period of return of invested resources will be shorter.

Therefore, we can conclude that strategic management must pay maximum attention to the development of human capital, including promptly requesting state support for the development of the human capital training and development program. Finally, we find that the hypothesis stating that one of the basic pillars of sustainable development is human capital was totally confirmed, so that in order to ensure a sustainable economic development, it becomes appropriate to define a new economic development strategy with a special accent on the role of human capital.

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