

## CONCEPTUAL AND PRACTICAL ASPECTS OF HUMAN CAPITAL FORMATION IN THE NEW REALITY

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**ABSTRACT.** The human capital plays a key role in sustainable economic growth in modern society. In the article, the author presents a structural analysis of average disposable income and expenditure per capita, which influence the state and development of the main subsystems of the Republic of Moldova in the context of the formation of human capital. As a result of the analysis, the author notes the importance of synchronization and correlation of subsystems (education, labor market, health) in the formation of human capital, which have an impact on economic and social development.

**KEYWORDS:** *human capital, education, health care, national wealth.*

### 1. Introduction

The relevance of the presented topics is due to the fact that in the national conditions of economic globalization and the implementation of the processes of European integration, the emergence and development of new system-forming trends is becoming more and more distinct. It is no longer possible to ensure high quality and stable economic growth only by increasing the traditional factors of production. In inevitable development and the new economy, aimed at high technology products, information technology and financial services, the human factor plays the key role in the prosperity of the state.

The purpose of the article is to consider the main factors of the formation of human capital in the new reality of the Republic of Moldova.

The main tasks of the article are:

- analyze the factors of human capital formation;
- to carry out a structural analysis of human capital at the macro level;
- to carry out a correlation analysis of subsystems of factors that play a decisive role in the formation of human capital.

In the innovative process, an exceptional role play, the creative abilities of a person, his intellect, ingenuity, and the ability to find unconventional solutions to complex problems. At the same time, the solution of economical, scientific, artistic, technical, and social problems need creative interaction of innovators. It means that, the human abilities are the main capital of any enterprises.

The founders of the concept of human capital can be considered representatives of the "Chicago school" - T. Schultz and G. Becker. In their scientific work the first time the definition of "human capital" was introduced, focusing on investments of human capital and evaluating their effectiveness.

In writing the article, were used the scientific works of researchers in the field of management, economics and sociology, which paid special attention to the importance of human capital.

Among the scientists who have contributed to the study of human capital are the following: D. Minzer, C. Marx, U. Petit, I. Fisher, G. Minzberg, P. Drucker, M. Amstron, I.

Ansoff, S. Bowles, M. Porter, L. Thurow, D. Norton, R. Caplan, R. Solow, S. Cuznets, O. Nicolescu, A. Kibanov, V. Gerchicov, R. Fathutdinov, A. Vihanskii etc.

In the Republic of Moldova, practical and methodological aspects were studied by: G. Belostehnik, S. Kirca, A. Birca, A. Kotelnik, A. Onofrey, L. Bilash, L. Shavga etc.

## **2. Materials and methods**

The formation of human capital at the current stage in the Republic of Moldova has been studied using various research methods, including: complex, analytical, survey and comparative methods.

The official statistics were the basis for the analysis of the socio-economic situation in the world and the Republic of Moldova.

Methods of analysis and synthesis were also used, mainly in defining basic concepts, as well as in analyzing the main indicators.

Common methods of research allowed to analyze the current situation of sub factors that have a leading role in the formation of human capital.

## **3. Results and discussions**

The human capital of an organization is defined as the total psychophysiological, intellectual, physical, moral, social, moral and other abilities of all employees to earn income to organization.

A person, being a subject of socio-economic relations, simultaneously accumulates his intellectual capital and generates (gives up) his creative energy through the performance of creative actions. Hence the consequence: being in a particular social environment, he is able to increase the social level of his own creative capabilities, which then, through the manifestation (generation) of creative energy, increase his labor productivity in the material (production) sphere of activity (Gorelov, 2010, p. 155) [0].

Analysis of the content and conditions for the capitalization of human capital allows A.N. Dobrynin and S.A. Dyatlov to develop a general definition of human capital as an economic category of a modern information and innovation society. “ Human capital is a certain stock of health, knowledge, skills, abilities, motivations which are formed as a result of investments and accumulated by a person, and which are used in the labor process, contributing to the growth of its productivity and earnings” (Smirnov, Soshnikov, Romanchin, Skoblyakova, 2005, p. 99) [0].

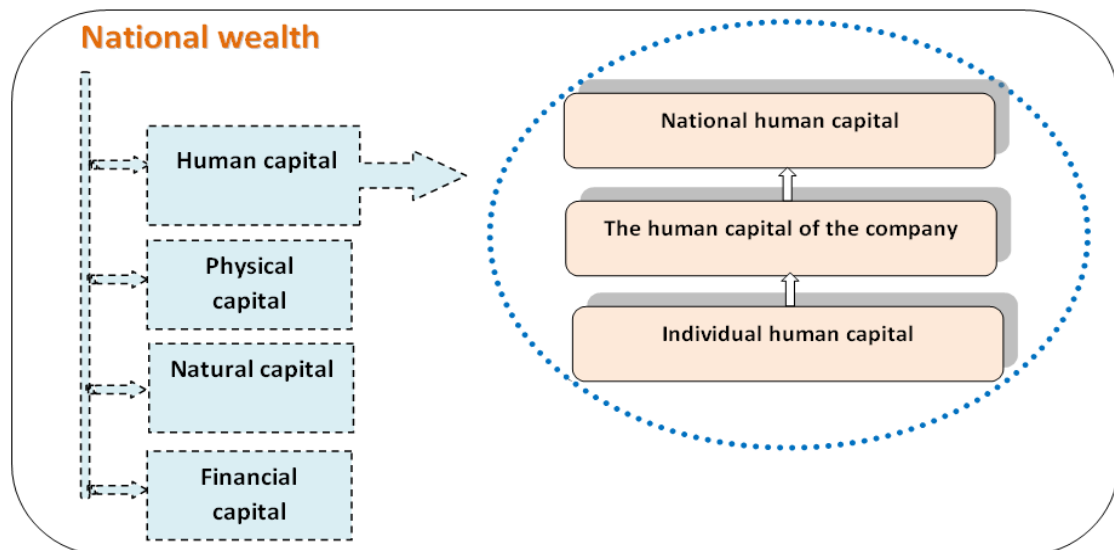
Today, the main paradigm of the global economy is formed, assigning a central role to a person, his ability to be a source and generator of innovations and capital.

It is necessary to understand how each individual employee forms his own human capital, and the individual characteristics and employees are summed up and form the potential of organization as a whole.

Human capital, as part of the national wealth, is a three-level subsystem with form factor and the development of the new economy (Figure 1).

Quality of human capital is a major factor in the innovative and socio - economic development of the state.

State measures aimed at the formation of human capital that carried out through the implementation of social policy. Social policy that determines investments in education, health care, social protection, employment and employment, as well as other measures necessary for the development of human capital.



**Figure 1. Components of national wealth**

*Source:* Elaborated by author

In modern conditions of Moldova, we can see the following main negative points, which are affecting the formation and use of human capital as well:

- demographic situation in the state;
- problems in the system of motivational factors aimed at the development of human capital;
- weak correlations between the education system and the labor market;
- weak capitalization of human potential.

Existing demographic dynamics of the country's population is one of the most acute problems: in the past few years, starting with the '90s, the population steadily declining. In 2019 the population was 3,542.7 thousand people.

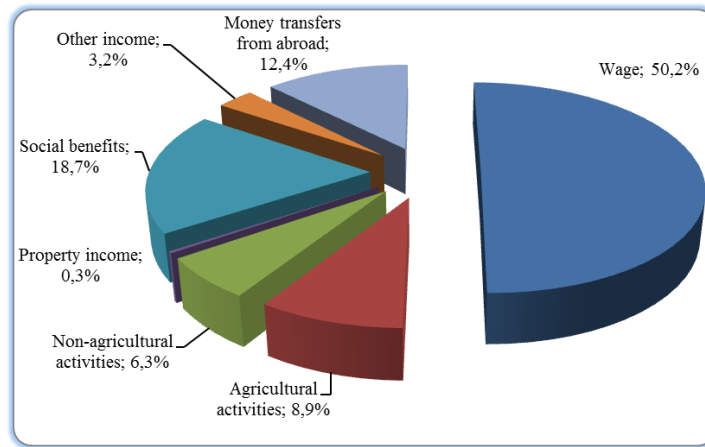
The Basic reason of demographic crisis is the migration of the population, mainly is economic active part (the average number of travel outside the Republic of Moldova in search of work in 2018 amounted to 352.7 thousand. pers.) And aging of population (the rate of aging population in 2019 year was 17.7 points).

The results of studies on the causes of population migration, socio - economic aspects are noted. Of those surveyed 41 people and living on the territory of Gagauzia, 28 people (68.3 %) noted as the main reason to travel outside the republic - low wages.

The Republic of Moldova is the country with the lowest living standard of living among European countries, which contributes to the search for a new job with a higher wage. For most working people, wages are the main source of existence.

In 2019, the disposable income of the population amounted to 2,880.6 lei per person per month, an increase of 523.5 lei or 22.2% compared to the income of 2018.

According to the National Bureau of Statistics, wages, social benefits and remittances from abroad are the main sources of income for the average citizen of Moldova, accounting for 81.3% of the income received (Figure 2).

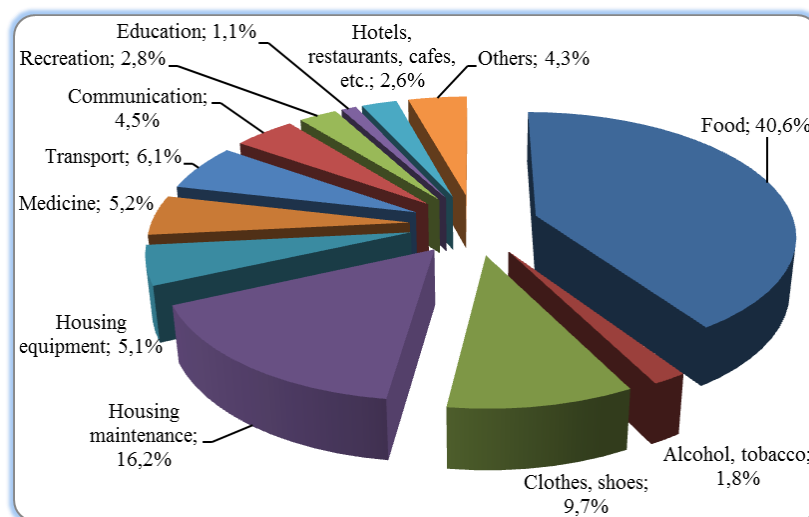


**Figure 2. The structure of the average monthly disposable income of the population of Moldova per capita in 2019**

*Source:* Elaborated by author based on National Bureau of Statistics data [0]

The average wage that was received in the Republic of Moldova does not fully meet the needs of life. In the analyzed period, 2013-2019 years, the average monthly wage per employee in the Republic of Moldova on the economy had a steady growth trend. In 2019, the average monthly wage amounted to 7 356.1 lei, which is 3 591.0 lei or 95.4% more than in 2013. Converting wages into foreign currency at the exchange rate at the end of the reporting periods, the wages amounted to 427.7 US dollars, which is 48.1% more than in 2013. A more modest growth, almost 2 times less, is evident in the wages of one employee when converted into US dollars.

The average amount of monthly consumption expenditures per capita in 2019 amounted to 2 786.5 lei, which is 397.4 lei or 16.6% more than in 2018 (Figure 3).



**Figure 3. The structure of average monthly consumption expenditures of the population of Moldova per capita in 2019**

*Source:* Elaborated by author based on National Bureau of Statistics of the Republic of Moldova data, (visited on 06.14.2020) [0]

In the structure of expenditures, the largest share is made up of consumer expenditures on food consumption - 40.6% of total expenditures.

Also a major burden on the consumption expenditures is the cost associated with the maintenance of meters of housing, which in 2019 accounted for 16.2% of total expenditure (451.4 lei per person).

Other type of expenditures account for less than 10.0% of total consumption expenditures. The insignificant expenditure on health care (medicine) - 5.2% and on education - 1.1% are of total consumer spending.

One of the positive demographics of Moldova is the level of education of the population. Analyzing the structure of the working population and educational level, is noted a great potential of human resources (table 1). The presence of education (higher, secondary specialized and secondary) is at the level of 65.2% of the total employed population in the Republic of Moldova in 2019.

**Table 1. The structure of the employed population by age group and level of education  
2019 year**

<i>Education</i>	<i>Employed population</i>	<i>Age group, years</i>					
		<i>15-24</i>	<i>25-34</i>	<i>35-44</i>	<i>45-54</i>	<i>55-64</i>	<i>65+</i>
<b>Total ,%</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Higher,%	27.9	15.1	39.2	32.8	20.1	20.7	23.7
Secondary education ,%	14.6	15.5	10.3	9.8	18.0	21.2	22.9
Secondary education ,%	22.7	21.2	18.5	19.7	29.3	26.0	15.8
Lyceum, general education ,%	17.7	22.8	12.9	16.9	19.3	22.4	14.7
Gymnasium ,%	16.7	25.1	18.6	20.6	13.2	9.5	20.8
Primary or no education ,%	0.4	0.4	0.6	0.3	0.1	0.3	2.2

*Source:* compiled by author based on National Bureau of Statistics data [0]

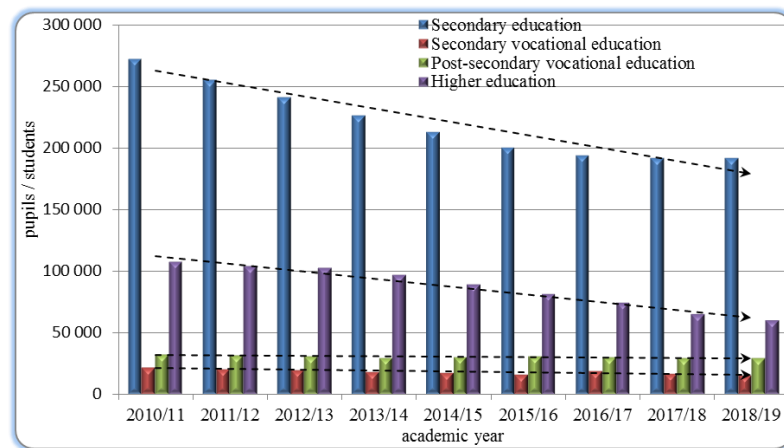
The largest percentage of people with higher education (39.2 %) is the age group within the range of 25-34 years, the category that is at the very beginning of labor activity.

The demographic decline has predetermined a negative trend in the number of pupils and students at all levels of education. The dynamic of the number of pupils / students in educational institutions of Moldova in the 2010/2011 - 2018/2019 academic years is shown in Figure 4.

In the 2018/2019 academic year, the number of pupils totaled and 192 017 people, which is 29.6% or 80 568 students less than the 2010/2011 school year. This tendency is directly projected on further levels of education.

A similar decline is observed in secondary vocational education, the indicator of which decreased by 28.5% from the indicator to the 2010/2011 academic years (- 6,113 students).

The greatest decline in the analyzed period is observed at the level of higher education. The average annual decrease in the number of students at the higher education level was 4.9%. Thus, for 9 years, analyzed the number of students was reduced and by 43.8% compared to the 2010/2011 academic year, amounting to 2018/2019 academic year is the 60th 608 students enrolled in all institutions of higher education in the country.



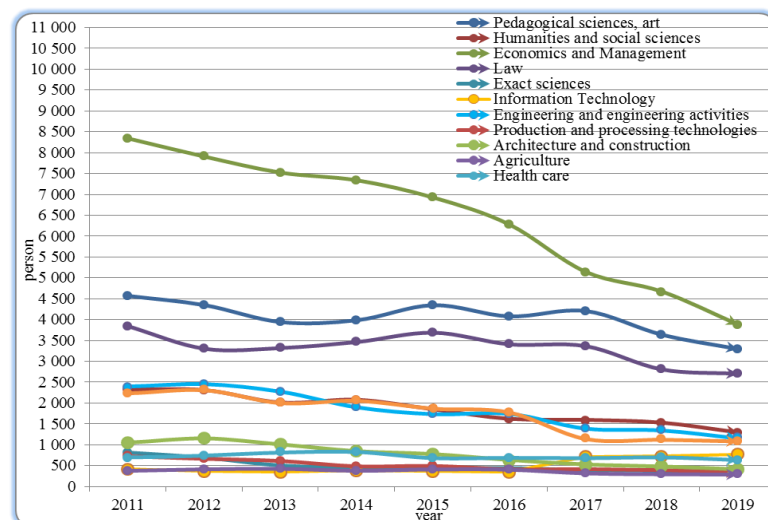
**Figure 4. Dynamics of the number of pupils / students in educational institutions of Moldova in 2010/2011 - 2018/2019 academic years**

*Source:* Elaborated by author based on National Bureau of Statistics data [0]

According to steady decline is also observed in the dynamic of higher education graduates. In 2019, the number of graduates from higher education institutions was 16,266, which is 18.4% less than the number of graduates in 2017.

Analyzing the structure and dynamic the number of graduates in higher educational institutions in the context of specialties in 2011 - 2019, it can be noted that it has not undergone radical changes.

The main change was noted in the specialty "Economics and Management". This specialty has a negative trend. In 2019 the number of graduates in this specialty was 3 874 people, which is 2.2 times fewer graduates in 2011. However, due to a decrease in the total number, the share of the analyzed specialty was 23.8% of the total number of graduates in 2019, decreasing by 6.2 percentage points.

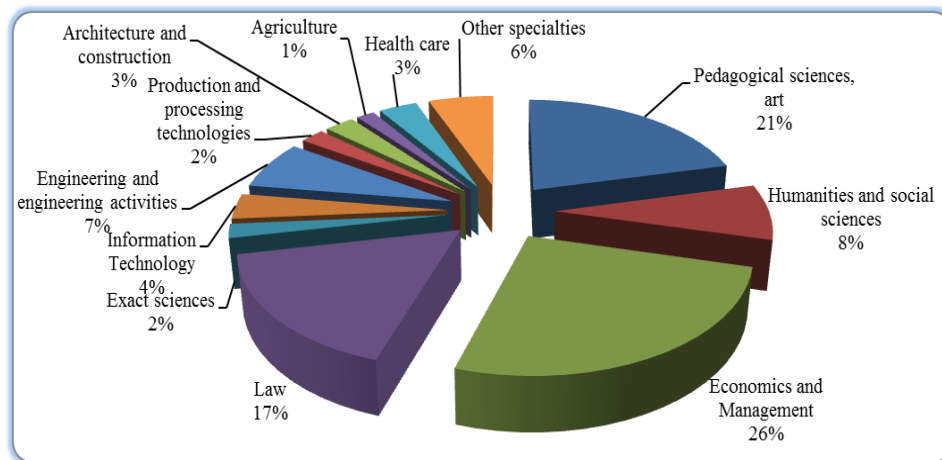


**Figure 5. Dynamics of specialties graduated by higher educational institutions of Moldova in 2011 - 2019**

*Source:* Elaborated by author based on National Bureau of Statistics data [0]

In conditions of rapid changes in the economy, demand in the labor market, significant changes in the structure of specialties graduated from higher educational institutions, are not observed (Figure 5).

The main specialties for the entire analyzed period were and remain "Economics and Management", "Pedagogical Sciences and Art" and "Law". Together, their share is 64.0% of the total number of graduates in 2019 (Figure 6).

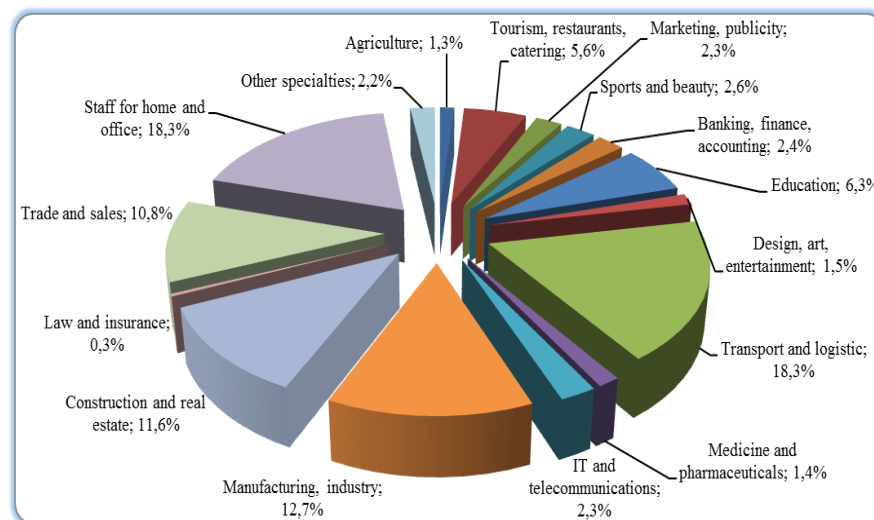


**Figure 6. The structure of graduates of higher education institutions by specialty in 2019**

*Source:* Elaborated by author based on National Bureau of Statistics data [0]

In this context, the analysis of the labor market demand was carried out on the basis of three leading Internet resources offering vacancies in the territory of Moldova. The results of the analysis demonstrate the supply of jobs in the context of specialties which are shown in Figure 7.

Analyzing the demand in terms of education, is worth noting that specialists with higher education are less in demand on the labor market. This is also evidenced by the data of the National Agency for Employment [0].



**Figure 7. The structure of vacancies offered in the labor market of Moldova**

*Source:* Elaborated by author based on data from the three leading Internet resources of Moldova (data for July 2020)

The current situation leads to the fact that a large number of graduates of educational institutions are employed in the first place of work not in their specialty, thereby losing their theoretical knowledge and skills.

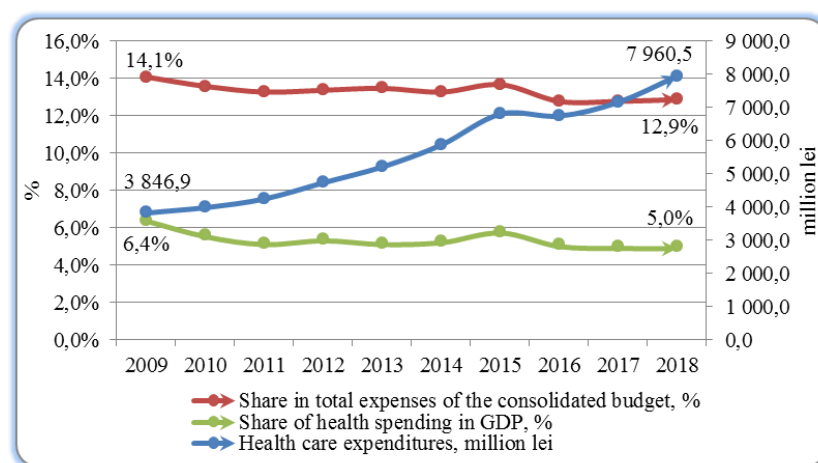
The situation is aggravated by the fact that a population with huge human capital and potential is migrating. In general, migrants have a relatively good level of

education. According to statistic, 51% of migrants have specialized secondary or higher education and 49% of migrants have a gymnasium or lyceum level of education.

Along with education, public health is an important factor directly influences present in the formation and functioning of human capital. Poor health also leads to workforce, lower productivity, lower living standards and other socio-economic hardships.

Over the past 10 years, expenditures on health care in absolute terms have shown a steady upward trend (Figure 8). In 2018 expenditure amounted to 7 960.5 million. lei, which is more than 2 times higher than a figure of 2009 (3 846 900 000 lei).

However, after analyzing the tendency of US dollars and health care expenditures in the general expenditures of the consolidated budget and in GDP, we note a slight decline. Thus, the share of health care expenditures in the total expenditures of the consolidated budget in 2018 amounted to 12.9% of the total amount of the consolidated budget, which is 1.2 percentage points is less than in 2009.



**Figure 8. Dynamics of health care expenditures in the period 2009 - 2018**

*Source:* Elaborated by author based on National Bureau of Statistics data [0]

A similar trend is observed in terms of the share of health spending in relation to GDP. Thus, in 2018, the share of health care expenditures decreased by 1.4 percentage points compared to 2009, amounting to 5.0% of GDP.

During the period, 2012 – 2018 years the number of reported cases has risen steadily on. Exceptions began in 2018, when the index decreased by 4.1 thousand people (-0.14%).

Despite the positive quantitative indicators of human potential in the Republic of Moldova, the qualitative indicator demonstrates a diametrically opposite situation. The quality of the education and health care system in Moldova is inferior to European and world standards.

According to the Report on Human Development, published on United Nation Development Program, the index of "Human Development" The Republic of Moldova is part of the group of countries with high human development and is located on the 107 world ranking and in last place among the European Union [0].

In 2018 the Republic of Moldova Catching la 75-th place among 157 countries in the ranking index of human capital according to the World Bank [0]. The proposed index measures the productivity level of the next generation of workers in comparison with the benchmark the full course of study and full health.



#### 4. Conclusions

The determining factor of socio-economic development in the Republic of Moldova, in context of economic globalization and transition phase from the classic to the new economy is human capital. Its formation and accumulation should be considered as the most important factor in the economic growth of the state.

One of the main factors in the formation and development of individual human capital is the amount of income received. Wages are the main source of income (50.2%). The low wages are the main reason for migration and low investment in individual human capital.

Despite the importance of human capital, individual investment in it is minimal (1.1% of average monthly consumer spending per capita). In Moldova, the expenditure on education is considered the consumer spending than investment.

In conditions of insufficient funds for a person to meet his elementary physiological needs, there can't be talked of a complete restoration of the moral and physical wear and tear of the labor resource. The owner of human capital will improve biophysical, social, intellectual, spiritual and other abilities, provided that the amount of wages will meet the primary needs of life.

Public investments aimed at the formation of human capital are not effective enough. It should be noted in particular that there is the gap between subsystems of the public education and the labor market.

The result of the inconsistency of the subsystems is the employment of the population outside their specialty, the inconsistency of qualifications with the requirements of jobs and other aspects, as well as an increase in the number of overqualified persons among the employed population with higher education.

Joint contribution (from the state, enterprises and individuals) to the formation and effective use of human capital in order to ensure a healthy, educated and competitive population in the labor market will ensure a successful transition to a new economy and an increase in national wealth.

#### REFERENCES

- Gorelov N. A. Anti-crisis management of human resources. - SPb.: Peter, 2010, ISBN: 978-5-49807-663-8.
- Smirnov V., Soshnikov I., Romanchin V., Skoblyakova I. Human capital: content and types, assessment and stimulation. - M.: Mechanical Engineering-1, Orel: Orel State Technical University, 2005, ISBN: 5-94275-226-5, ISBN: 5-93932-100-3.
- <https://ec.europa.eu/eurostat>
- <https://statistica.gov.md/category.php?l=ro&idc=445>
- <https://anofm.md/page/rapoarte1>
- <http://hdr.undp.org/en/2018-update>
- <https://www.worldbank.org/en/publication/human-capital>