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**ON THE ISSUE OF HUMAN CAPITAL DEVELOPMENT IN THE
NATIONAL ECONOMY OF UKRAINE**

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Abstract. *Population, man, human resources, human capital are the defining concepts in the consideration of issues related to the functioning of the national economy in modern economic conditions. It is generally recognized that labor activity is the main prerequisite that determines the material and spiritual wealth of man and society as a whole. Therefore, human resources at the present stage is one of the main components of the production potential of management in Ukraine, increasing the efficiency of use and reproduction of which are especially relevant. On the level of efficiency of human resources depends the level of welfare of the population, the development of productive forces, the scale of material production, etc.*

The development of intellectual productive forces and the strengthening of the influence of innovation and information factors contributes to the formation of a new socio-economic role of man in the modern economy and requires appropriate research.

The article reveals the theoretical issues of trends in human capital development, a thorough analysis of the current state of human capital development and its importance in the modern economy. Based on the generalization of different views of scientists, the main stages of human capital formation in the agricultural sector of Ukraine's economy are identified and characterized. The problems of human capital use have been studied and proposals for its improvement have been worked out.

It is revealed that the process of reproduction of human capital in agricultural enterprises and its effective use in the conditions of market transformations should be based on the principles of active policy aimed at reviving the economic situation in agriculture; scientific substantiation; development of measures in order to increase jobs and increase the labor needs of agricultural enterprises; improvement of the

system of remuneration, social protection of agricultural workers; formation of the mechanism of social partnership, etc.

Keywords: *human capital; investments; preservation of human capital; factors of human capital development; depreciation; quality education; state policy on education; demographic policy; competitiveness; National economy*

Topicality. In today's economy, human capital is a major factor in innovative development. It is its creative core - scientists, educational and pedagogical workers, managers and other specialists create innovations and implement them in economic activities, create favorable conditions for the innovation process and a decent life.

The urgency of the research topic is also due to unresolved issues of economic content and the role of human capital in the economy, the lack of socio-economic mechanism for its regulation, formation and use, as well as staffing. After all, the state of Ukraine's human capital is currently unsatisfactory: the rapid decline and aging of the population, decreasing birth rates and the share of the working population, increasing labor migration, "brain drain" abroad, and other reasons lead to a lack of skilled human capital in all sectors of Ukraine's economy.

Analysis of recent research and publications. Issues of reproduction and use in human resources at micro and macro levels are reflected in the works of many domestic and foreign economists, including: V. Antoniuk, G. Becker, N. Vedernikov, I. Hnybidenko, O. Grishnova, S. F. Gorban, E. Denison, V. Diyesperova, L. Emelianenko, A. Yermakov, P. Drucker, Y. Zaitsev, R. Kapeliushnikov, A. Kolot, I. Kravchenko, T. Kostyshyna, Y. Korchagin, L. Lisogor, A. Levchenko, S. Luchik, R. Mintser, D. Melnychuk, V. Nagorny, G. Nazarov, V. Nykyforenko, J. Smith, M. Romaniuk, V. Savchenko, U. Sadova, L. Semiv, M. Semikin, T. Schultz, L. Shaulsk, L. Shevchuk, L. Chervinska, O. Chumak V. Tkachuk and others. At the same time, the analysis of scientific works gives grounds to assert that the issue of human capital formation in the national economy needs to be studied in more detail.

Object of research: social and economic processes of formation and use of human capital in the national economy of Ukraine.

Subject of research: socio-economic relations, connections, processes, trends, phenomena, patterns and their features that arise under the conditions of reproduction and effective use of human capital in today's changing market environment.

The purpose of the article: to study the current situation, identify problems and identify key ways to ensure the development of human capital in Ukraine.

Materials and methods. During the research for collection, analysis, evaluation of information and formation of conclusions was used historical (research of views of scientists of a labor direction), abstract logical (theoretical generalizations, disclosure of the concepts, drawing conclusions), spreadsheet (development and analysis of tables) and graphical (construction and analysis of graphs) methods.

Research results and their discussion. To date, there are many opinions of scientists on the concept and understanding of human resources and human capital, but it is clear that in relation to social production they form the basis of economic potential and ensure its efficient use.

Traditionally, the defining feature of Ukraine's human resources was their diligence. In this context, LV Sinyaeva notes: "At the same time, we should pay attention to such positive features of the labor mentality of Ukrainians as intelligence, the desire for creative self-realization, the desire to see the results of their work." [14 p. 115].

Our and other scientists' researches shows that human resources are specific in terms of reproduction and productive use and at the same time the most important of all types of production resources. The classic of English political economy also drew attention to this, noting that labor is the father of wealth, and the land is its mother.

As a factor of economic development, human resources are workers who have certain professional skills and knowledge and can use them in the labor process of any sector of the national economy, including agriculture.

Determining the place of man in economic development, scientists in their research use various concepts, the main of which are: "human resources", "human capital", "labor resources", "staff", "labor force" and so on.

Human capital in a broad sense is an intensive productive factor of economic development, development of society and the family, including the educated part of the labor force, knowledge, tools of intellectual and managerial work, place of residence and work, ensuring effective and rational functioning of human capital as productive factor of development [20].

The American economist, Nobel Prize winner T. Schultz noted that all human abilities are either natural or acquired. Each person is born with an individual complex of genes that determines his natural abilities. Valuable qualities acquired by a person, which can be enhanced by appropriate investments, we call human capital [2].

Summarizing various sources, we can say that human capital is a set of innate and acquired during life individual qualities, values, behaviors, knowledge, motivations, skills, physical characteristics that depend on the ability to develop spiritually and physically, receive quality education, live in a democratic and a free state society, have access to quality health services and give their owner the opportunity to accumulate their labor, social, intellectual potential and use it to produce material goods and services for their material support and moral satisfaction in the process of work.

Scientists in their research consider human capital on three interrelated levels, due to its complex nature and diversity of social relations, which have been formed over time [3; 12].

At the first level, individual human capital should be considered as health capital, cultural capital, labor, intellectual, organizational and entrepreneurial capital. The second level is broader - the company human capital, it recognizes types of individual human capital (patents, inventions), branded intangible assets (trademarks, commercial secrets, etc.), organizational capital, structural capital, brand capital and social capital. At the third level we can put the national human capital consisting of

social, political, national intellectual priorities, national competitive advantages and natural potential [3].

The component of human capital is labor resources and labor potential, which is characterized by a system of quantitative factors and conditions: the availability of labor, duration of work and leisure time, educational level of employees, socio-demographic factors and more. And the main element of labor potential is a person who has the necessary physical state, knowledge, skills and practical experience. [7].

Purposeful formation and use of labor potential involves the rational distribution of labor resources by individual industries and the territory of Ukraine, achieving a balanced need for labor in its presence. According to Vitalii Nahorny, labor resources that are involved in agriculture include all resources that are directly employed in agricultural enterprises, including farms and village households. Thus, the labor resources of agriculture consist of actually working in social production, employed in personal subsidiary and household, and those undergoing training [4, 7].

Considering the features of national human capital, we can note that today human capital is the main value of society and a determining factor in economic growth; the formation of human capital requires significant costs from the individual and society as a whole; human capital in the form of skills and abilities is a certain stock, it can be accumulated; human capital can be physically worn out, depreciated and economically change its value; human capital differs from physical capital in the degree of liquidity; human capital is inseparable from its carrier - a living human person; regardless of the sources of formation, which can be public, family, private, etc., the use of human capital and direct income is controlled by the person [18, p. 68].

So, we can conclude that human capital is a rather complex category around which there is still a lot of discussion and controversy.

However, it is also necessary to mention a number of factors that are involved in the formation of quality human capital, both in a positive and negative context, namely: the level of economic development; demographic situation; lifetime; income level of the population; quality of education and its accessibility; health care; level of

freedom and democracy; ecological condition in the country; availability of investment in human capital; the level of development of public institutions and civil society, etc.

The figure shows the state budget expenditures on the main components of human capital.

Fig. 1 State budget expenditures of Ukraine for human capital development, UAH mln.

Source. [9,16,19].

Analyzing the data, we can conclude that the largest share of expenditures is directed to social protection and education, and the smallest share falls on spiritual and physical development.

According to research by UN experts, today the country's economic growth by 64% is due to human and social potential, while natural resources - by 20%, and the availability of capital - only 16%, although a few decades ago it was the opposite [11].

One of the important elements of the reproduction of human capital is the demographic situation in the country. (Fig.2). According to the study, the population of Ukraine has significantly decreased over the past 20 years, mortality significantly exceeds the birth rate, the exodus of people abroad.

Fig.2 Change in the population of Ukraine 1989-2019

Source. [9,16,19].

Depopulation is a constant trend in the Ukrainian demographic situation. For example, as of 1993, there were 52.2 million people in Ukraine, which was the highest figure, after which the process of its continuous reduction began and as of October 1, 2019, it amounted to 41.9 million people.

The reasons for this phenomenon are: - low life expectancy. According to the statistics service, the average life expectancy in Ukraine is 71.4 years (65.2 years for

men, 74.5 years for women), growth is very slow, and life expectancy in Ukraine has decreased over the last two decades; - reducing the birth rate and keeping it low [1].

According to UN demographers, in 2050 the total birth rate in Ukraine will be 1.85, and according to national experts - 1.60 [11].

It should also be noted that on the formation of human capital a significant role was played by the level of income, which is expressed directly in wages, social benefits (social and compensation packages) and other sources of income.

Fig. 3 Dynamics of average wages in Ukraine

Source. [9,16,19].

Wages in Ukraine are still very low, despite constant legislative changes. The average wage does not fully provide the conditions necessary for the full life of the average family. This, in turn, limits people's ability to receive quality education, health care, etc., which negatively affects the quality of human capital and prospects for its growth.

The analysis shows that it is skilled work in public administration, education, health care, culture that costs the least in Ukraine. Ukraine, seeking to maintain competition in the world market in conditions of high energy and material consumption of industries, maintains low labor costs. And now it is a factor in the competitiveness of Ukrainian goods, and - an insurmountable barrier to productivity growth, production development, scientific and technological progress [6, p. 213].

The third, and as we believe the main element of human capital formation, is the quality and accessibility of education, according to modern requirements and standards for the development of the child - the future qualified specialist.

In today's labor market, education has been and remains an important element of quality and competitiveness of the workforce, the foundation on which human capital is formed.

As example we can consider situation on a labor market in rural areas which characterized by a reduction in the number of those employed in the economy. At the same time, we see redistribution of labor from the sphere of material production to the service sector, development new forms of employment and self-employment of rural population, dynamic increase of general unemployment over officially registered in 4-5 times. This indicates a shifted the bulk of rural unemployed outside of regulated labor market, limited areas application of work outside the rural areas, reduction of social infrastructure's objects, as a result why find a job in the countryside a lot harder than in the city [13].

The laws of Ukraine on education and scientific and technical activities clearly define the percentage of GDP that should be allocated to education and science. These figures are 10 and 1.7%, respectively. [12].

Today it is quite difficult to call the figures for the level of education funding optimal, so at the beginning of the 2018/19 academic year in Ukraine there were 652 higher education institutions, which is nine less than a year ago (661). Also, according to statistics, the number of students who received higher education in these institutions was 1,522 thousand people, which is 17 thousand less than at the beginning of the 2017/18 academic year (1539 thousand). [19].

We see that every year the number of people receiving higher education decreases, which is a very negative factor. This is due to the reduction of universities, the massive reduction of public procurement and the transition to a contract form of education, which not everyone can afford.

Although, according to research, Ukraine is in the top twenty of the global competitiveness rating of the World Economic Forum (WEF) on the index of coverage of higher and secondary education [5, p. 27].

According to the relative number of people studying in higher education (79.4%), the country ranks 8th out of 142 countries. However, according to the overall score of the component "Higher Education and Vocational Training", Ukraine is on the lower, 51st position. [5, p. 27].

The reason is the low quality of education and training in the workplace. These factors annually reduce the overall assessment of the country. The quality of education also does not meet the expectations of employers. The level of graduates of Ukrainian universities and the expected level of qualification of young specialists differ significantly. According to a survey of managers conducted by the Foundation for Effective Governance, every fifth employer considers the low level of skills of the workforce a problematic factor for their own business. [5, p. 27].

Human capital - as the potential of individuals - is the most important long-term investment of any state. According to a study of economic growth factors conducted by the World Bank in 192 countries, 64% of countries achieve economic growth through human capital, and only 16% of countries - through the use of productive potential, and 20% - through natural resources. Thus, the structure of national wealth of many developed countries is dominated by human capital, which is from 2/3 to 3/4 of the total national wealth [10].

The state of human capital development in Ukraine from the standpoint of development of education, science and innovation should be analyzed in comparison with the parameters of other countries. According to the ranking of countries according to the value of the Human Capital Index (Human Capital Index) of the World Bank in 2018, Ukraine ranked 50th among 157 countries. The top three in the ranking were: Singapore, Japan, South Korea [10].

According to the United Nations Human Development Index, Ukraine belongs to the group of countries with a high level of human development, ranking 88th out of 189 countries in 2017. The top three in the ranking are formed by: Norway, Switzerland, Australia [10].

In the Human Capital Report (WEF Global Human Capital Report), which calculates the Global Human Capital Index (GHCI) and which provides a comprehensive assessment of the country's human capital - both current and expected, Ukraine in 2017 took 24th place among 130 countries. The top three in the ranking were: Norway, Finland and Switzerland [10].

Ukraine's positioning in international rankings shows that the availability of workable educated human resources remains a competitive advantage of the national economy, and the state of its use and balanced development is a determining factor in strengthening its innovative capacity. However, Ukraine is inefficiently using its educational, innovative and scientific potential for economic growth and competitiveness at the regional (subregional) and global levels.

Therefore, to improve the state of human capital and increase its competitiveness, the state should pay attention to its main components: health care, improving the level and quality of education, improving the quality of life, all this can be attributed to such a concept as social responsibility of business and the state.

The vector of introduction and development of social responsibility is aimed at raising social status and creating a positive reputation. The very idea of introducing social responsibility is related to the need to ensure sustainable development, to achieve a balance of interests between the state, business and society. The simplest form of social responsibility is timely payment of labor, taxes and job creation. A more perfect manifestation will be the development of staff aimed at training and professional development, using motivational schemes of remuneration, providing employees with a social package, creating conditions for recreation and leisure, maintaining internal communications in the organization, employee participation in management decisions. [8].

Regarding to education policy, in our opinion, its new priorities should be the following areas of development: improving the quality and competitiveness of education (creating new state standards of education; ensuring access to education; improving the efficiency of education funding; ensuring free access to truthful information on various aspects public life needed for decision making).

The quality of the health care system also needs to be improved. The main priority of the authorities in the field of health care should be to create economic and social motivation for the population to be healthy and to provide the state with legal, economic, organizational and infrastructural conditions for leading a healthy lifestyle.

Conclusions and prospects for further research. Thus, human capital has become an important factor in the development of society today. In these conditions, comprehensive actions by public authorities are needed, which, based on available human capital, would provide conditions for sustainable economic development in the country and to build a new, socially oriented, innovative economic model in Ukraine, which would be aimed at forming and development of a qualitatively new information and intellectual society within the framework of European and world traditions and norms, taking into account the positive world experience of human development.

References:

1. Avchukhova A. & Kochemirovska O. (2012) Shchodo napriamkiv sotsialnoi pidtrymky simi v konteksti realizatsii demohrafichnoi polityky v Ukraini [On the directions of social support of the family in the context of the implementation of demographic policy in Ukraine] Analytical note National Institute for Strategic Studies. Available at: <https://niss.gov.ua/doslidzhennya/socialna-politika/schodo-napryamkiv-socialnoi-pidtrimki-simi-v-konteksti-realizacii>
2. Bogunya D.P. & Hrishnova O.A. (2002) Fundamentals of labor economics. Kyiv: Znanja-Pres [in Ukrainian]
3. Gorban S.F. & Chumak O.V. (2013) The current state and ways to ensure the development of human capital in Ukraine. *Economy and State*, 9, 37-41 [in Ukrainian]
4. Ermakov O., Nahornyi V. (2013) Formuvannja ekonomichno stijkogho vyrobnychogho potencialu siljsjkoghospodarsjkykh pidpryjemstv [Formation economically proof of agricultural enterprises production potential] Kyiv: National University of Life and Environmental Sciences of Ukraine.
5. Report on the competitiveness of the regions of Ukraine in 2009-2011 [Electronic resource]. Available at: <http://www.feg.org.ua>

6. Kondirina A.G. (2011) Decent salary - a prerequisite for the preservation and development of human capital of Ukraine. *Formation of market relations in Ukraine*, 9 (124), 213–216 [in Ukrainian].

7. Nagorny V.V. (2016) On the issue of effective use of labor resources as a component of the production potential of agricultural enterprises. *Economic Bulletin of the University*, 29 (2), 256-261[in Ukrainian].

8. Nahorniy V. V. & Chetveryk O. V. (2017) The problem of implementing social responsibility in Ukraine agro-industrial enterprises capacity. *Science and Education a New Dimension*, 24 (146), 7-11.

9. National report on human development. Ukraine: on the way to social inclusion. United Nations Development Program in Ukraine. Available at: <http://www.undp.org.ua/>

10. Resolution of the Verkhovna Rada of Ukraine on the Recommendations of Parliamentary Hearings on the topic: "Balanced Development of Human Capital in Ukraine: Tasks of Education and Science Available at: [//ips.ligazakon.net/document/view/DH7YU00A? An = 3](http://ips.ligazakon.net/document/view/DH7YU00A?An=3)

11. United Nations Development Program in Ukraine. Analytical and advisory center of the Blue Ribbon. Demographic and financial preconditions of pension reform in Ukraine: forecast - 2050. Available at: <http://brc.undp.org.ua/ua/press/news/134>

12. Trade unions in terms of reforming higher education. Available at: <http://profosvitamk.org>

13. Tkachuk, V. & Kostiuk, T. (2019) Ways of increasing efficiency of use of labor resources in the agricultural sector of economy of Ukraine, *Agrosvit*, 12, 10–14 [in Ukrainian]. DOI: 10.32702/2306-6792.2019.12.10

14. Sinyaeva L.V. (2016) Socio-psychological features of human resources in Ukraine. *Economics and organization of management*, 3 (23), 109-116 [in Ukrainian].

15. Smirnov V.T., Soshnikov I.V., Romanchin V.I., & Skoblyakova I.V. (2005) Human capital: content and types, evaluation and stimulation. Moscow: Mashinostrojenije1, Orel: OrelGTU [in Russian]
16. Salary statistics in European countries. Website of the Statistical Service of the European Commission "EUROSTAT". Available at: <http://epp.eurostat.ec.europa.eu>
17. Family and family relations in Ukraine: current status and trends. (2009) Kyiv: LLC "Osnova-Print" [in Ukrainian].
18. Yakovenko R.V., Kozenko P.O. (2010) Problems and prospects of human capital development: Collection. *Scientific works of KNTU. Economic sciences*, 17, 67-75.
19. Wages in Ukraine: on the path to economic growth and prosperity (2010) Analytical report of the Razumkov Center. *National Security and Defense*, 7, 2-77.
20. In Ukraine, the number of universities and students has decreased [Electronic resource]. Available at: <https://konkurent.in.ua/publication/34605/v-ukraini-zmenshilasya-kilkist-vishiv-i-studentiv/>

**ДО ПИТАННЯ РОЗВИТКУ ЛЮДСЬКОГО КАПІТАЛУ В
НАЦІОНАЛЬНОМУ ГОСПОДАРСТВІ УКРАЇНИ
В.В. Нагорний, Т.О. Костюк, Д.В. Перникоза**

Анотація. Населення, людина, людські ресурси, людський капітал є визначальними поняттями в розгляді питань присвячених функціонуванню національної економіки за сучасних умов господарювання. Загальновизнано, що трудова діяльність є основною передумовою, яка визначає матеріальне й духовне багатство людини й суспільства загалом. Тому, людські ресурси на сучасному етапі є однією з головних складових виробничого потенціалу господарювання в Україні, підвищення ефективності використання і відтворення яких набувають особливої актуальності. Від рівня ефективності використання людських ресурсів залежить рівень добробуту населення країни, розвиток продуктивних сил, масштаби матеріального виробництва тощо.

Розвиток інтелектуальних продуктивних сил та посилення впливу інноваційно-інформаційних чинників сприяє формуванню нової соціально-економічної ролі людини в сучасній економіці та потребує відповідних досліджень.

У статті розкрито теоретичні питання тенденцій розвитку людського капіталу, проведено ґрунтовний аналіз сучасного стану розвитку людського капіталу та його значення в сучасній економіці. На основі узагальнення різних поглядів науковців виділено та охарактеризовано основні етапи формування людського капіталу в аграрній сфері економіки України. Досліджено проблеми використання людського капіталу та опрацьовано пропозиції щодо його поліпшення.

Виявлено, що процес відтворення людського капіталу сільськогосподарських підприємств та ефективно його використання в умовах ринкових трансформацій має будуватися на принципах активної політики, спрямованої на пошук економічної ситуації в сільському господарстві; наукового обґрунтування; розробку заходів збільшення робочих місць і посилення потреби сільськогосподарських підприємств у робочій силі; удосконалення системи оплати праці, соціального захисту працівників сільського господарства; формування механізму соціального партнерства тощо.

Ключові слова: *людський капітал; інвестиції; збереження людського капіталу; фактори розвитку людського капіталу; знецінення; якісна освіта; політика держави щодо освіти; демографічна політика; конкурентоспроможність; національна економіка*