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Nadiya Azmuk

DETERMINATION OF THE COUNTRY'S PLACE FOR THE DEVELOPMENT OF CREATIVE HUMAN CAPITAL IN THE GLOBAL DIMENSION

The object of this research is creative human capital. In the context of digitalization, creative human capital enhances the competitiveness of the national economy. This requires the creation of favorable conditions in countries for the formation and development of creative abilities among carriers of human capital. Creative human capital acquires special significance and additional value in the context of the spread of the use of digital technologies in business and production processes. It is creative human capital that creates added value through the ability to innovate. These processes are responsible for the growth in the need for creative skills of human capital. Therefore, in this work, using the example of Ukraine, the place of the country in the global dimension is determined in terms of the level of development of creative human capital in the context of the digitalization of the economy. To compare the national economy with other countries for the formation of creative human capital and the level of favorable environment for its development, the data of the Talent Competitiveness Index were used.

The definition of a country in the global digital landscape is based on the use of the author's typology of employment, identifies five types depending on the combination of creative and digital skills in the labor process. In order to interpret the data obtained, the assessment of employment is coupled with the results of an expert survey. The survey involved 108 experts representing various aspects of social and labor relations: employees, employers, authorities. The results of the expert survey showed the existing demand in the national labor market for human capital, which has mastered creative and digital skills and combines in the labor process. A serious challenge for the national economy is the imbalance in the labor and education markets; it turns out to be in the demand for human capital with creative skills and the backwardness of the education market with the training of relevant specialists. An important direction of strategizing the development of the national economy is determined by balancing the labor market and education through strengthening the focus of the formal education system on the formation of creative skills. Application of the proposed approach to defining the country in the global digital landscape is a convenient tool for monitoring the level and dynamics of the country's creative capital development, the results of which can be used in developing a national development strategy.

Keywords: *creative human capital, creative class, digital economy, creativity, national economy.*

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1. Introduction

The digitalization of the economy is an inevitable trend in the modern development of society. The steady development of digital technologies puts forward new requirements for human capital and necessitates the formation and development of new qualities. The most suitable in the context of digitalization is the ability to think outside the box, creatively. Creative thinking is the ability of a person to think outside the box, to go beyond certain limits, allows one to find new solutions and approaches to solving problems and produce new ideas. This very

ability of human capital creates additional value and forms its value, which is of particular importance in the digital economy, where the worker, in the near future, must compete with artificial intelligence and robotics.

Against the background of the digitalization of the economy, a new class is being formed – the creative one. The author of [1] explains the creative class as a socio-economic class, which is the driving force behind the development of post-industrial regions and cities. The study [2] argues that the creative class is a socially and economically significant and influential factor in the development of the regional economy through the production of innovations.

The main difference between creative and other workers is the types of work they do. Representatives of the creative class create new knowledge, technologies, products, services and the like. The ability of a person to create new structures, systems, objects, relationships, phenomena, objects, models that did not exist before is defined as creative potential [3].

The creative class includes workers employed in the arts, technology, education, medicine, as well as professionals in management, consulting, finance, law, etc. [4]. Depending on the level of favorable environment, carriers of talent and creativity are unevenly distributed in the world. Innovation and creative industries are concentrated in cities, which are becoming centers of attraction for creative and talented individuals. For example, according to the results of the author's assessment, about 1/3 of the employed are in the creative class in Ukraine [5].

Digital technologies are transforming the content of labor and forcing human capital to compete with artificial intelligence and robotics, which necessitates the development of creative abilities. The creative abilities of the carriers of human capital form the competitive advantages of the national economy in the context of globalization and digitalization. The implementation of creative abilities by human capital leads to the innovative growth of the national economy. An important task for the economic development of the country is the formation of an environment conducive to the development of creative abilities.

In [6], it is proved that creativity is based on capture and confidence. Based on these studies, the author concluded that «creativity relies heavily on ordinary abilities. The ability to observe, remember, see, speak, hear, understand language and recognize analogies – all these abilities are very important and inherent in an ordinary person».

In the context of the digitalization of the economy, which leads to a reduction in employment in traditional types of activity, with the simultaneous appearance of vacancies in new areas, the need for creative workers is growing.

The results of a study conducted in the USA show a direct dependence of the formation of segments of the creative class in cities and regions on the level of favorable climate for professional development. In particular, technology workers are concentrated around powerful university centers. The artistic creative class predominates in the centers of industry, entertainment, fashion, design. Professionals are concentrated in business centers, while pedagogical and medical specialists are concentrated in large cities with a developed infrastructure of medical and educational services. Within the framework of this study, it is important to conclude that there is an increase in the unemployment rate in regions with a low level of creativity, and vice versa – a slight increase in employment in regions with a high level of creativity [2].

The definition of any country in the global dimension for the development of talent is an urgent need for developing a strategy for the development of the national economy in the context of digitalization. That is why *the object of research* is the creative human capital. *The aim of research* is to determine the place of the country in the digital global landscape in terms of creative human capital using the example of Ukraine.

2. Methods of research

Assessment of Ukraine's place in the global landscape behind the development of creative human capital is based

on a combination of factual data and expert assessments. The place of Ukraine was determined on the basis of the author's typology of employment in terms of creativity and digitalization. Using this typology, an assessment of employment in the global dimension is carried out, taking into account countries of different levels of development. In order to deepen the interpretation of the results obtained, the results of an expert survey were used, which was conducted in the period from November 2019 to March 2020. Among the respondents, 108 respondents representing three sides of social and labor relations: employers (35.2 %), employees (54.6 %) and authorities (10.2 %). The representativeness of the sample survey has an error of 9 %, which is acceptable for small samples.

3. Research results and discussion

Creative work is possible only if the environment is favorable; it requires constant investment in economic, social and intellectual structures, the task of which is to create just such an environment. That is why it is important to determine how much the environment created in the country is favorable for the development of creative human capital.

The Talent Competitiveness Index can serve as a convenient tool for assessing the favorable environment created in the country for the cultivation, development and use of creative human capital. According to this index, 132 countries were assessed in 2020 according to the level of favorable factors of the external environment for the development of talents. The Country Ranking Index takes into account the following indicators: labor market conditions in the country, employers' ability to attract talent from around the world, talent retention, professional and global skills (GTCI, 2020) [7].

According to the Talent Competitiveness Index, developed countries have the best positions in the ranking: Switzerland (81.3 %), USA (79.1 %), Singapore (78.5 %), Sweden (75.8 %), Denmark (75.2 %), Netherlands (75.0 %), Finland (74.5 %) [7]. The ratings of countries belonging to different groups according to the level of economic development according to the talent competitiveness index are given in Table 1.

It should be noted that among the countries that are located at the bottom of the table, namely Bhutan, Rwanda, Laos, Zambia, belong to the least developed countries in the world, however, according to individual sub-indices, they have the best or close values to the ratings of Ukraine.

Ukraine ranks 66th in the ranking and among the sub-indices it has low values in terms of «opportunity» (regulatory, market, business environment) and «attraction» (external and internal openness). At the same time, according to the indicators «global skills» (skills of the highest level: innovativeness, leadership, and the influence of talents on economic development) and «professional skills» (skills of the intermediate level, efficiency) belong to the countries of the second quartile. Low values of sub-indices Ukraine has such components: regulatory environment (115 position), rule of law (109), political stability (126), corruption (100), cluster development (101), professional management (106), technology transfer (119), attracting foreign investment (119). But it is characterized by high sub-indices for professional and global skills, in particular: workforce with higher education (3), senior officials and managers (25), top-level skills (26), professionals (29). According to the influence of talents on

the Ukrainian economy, it has the following positions: the production of innovations (35), the export of high-tech (expensive) products (72), the density of innovative business (60), scientific publications (62) [7]. The given data allow to conclude that favorable conditions have not been created in Ukraine for the development, attraction and retention of talents within the country. At the same time, a high rating in global skills is a challenge for Ukraine, as it predetermines the outflow of creative human capital.

the digitalization of labor operations according to the data of the sub-index «digital skills of the active population» of the «skills» component of the Global Competitiveness Index. Let's propose to evaluate the creativity of labor according to the sub-index «the impact of talent on the economy» of the component «global skills», which provides for an assessment of the indicators: production of innovations, high-tech exports, density of innovative business and scientific publications of the Global Talent

Competitiveness Index. For the assessment, let's use the rating data for 2019, since data on the «digital skills of the active population» sub-index are available for the above year (Fig. 1).

In countries with a low level of technological development, types of employment prevail, characterized by low digitalization of labor and are of a routine nature. In countries with a developed digital infrastructure, types of employment with a high digitalization of labor prevail.

Ukraine for digital skills in 2019 took 56th position with a value of 57.5 points, behind creativity 73rd position with a score of 18.89 points [9, 10].

According to the given values, the type of employment «digital» prevails in Ukraine, which is characterized by a sufficient level of digitalization with at the same time a low level of creativity in labor operations in comparison with other countries.

In this context, an important understanding is the demand in the national labor market for specialists who combine creative and digital skills. The survey results confirm the demand for this combination of skills. Table 2 presents an expert assessment of positions that are required to combine creative thinking skills with digital ones.

Table 1
Ranking of the leading countries and Ukraine according to the Talent Competitiveness Index, 2020

Country and its overall ranking	Ranking positions by sub-indices						
	capabilities	attracting	increasing	saving	professional skills	global skills	
Switzerland	1	2	6	2	1	2	4
USA	2	3	11	1	12	1	2
Singapore	3	1	1	8	24	5	1
Sweden	4	4	10	6	9	7	5
Denmark	5	6	14	7	3	10	6
Netherlands	6	5	15	3	7	6	16
Ukraine	66	94	93	68	73	56	46
Gambia	85	75	23	88	99	85	131
Butane	92	49	85	91	83	99	126
Rwanda	93	59	66	77	91	112	107
Egypt	97	105	116	104	74	104	52
Laos	98	95	97	111	107	100	48
Paraguay	99	101	64	94	90	109	102
Zambia	103	100	54	117	113	91	108

Note: made by the author based on GTCI data, 2020 [7]

The movement of talented people between countries is known as the «circulation of talents (brains)». Unlike migration, circulation involves the movement of talents around the world for the purpose of training and professional development with the possible return to their homeland to obtain better positions corresponding to wages. The circulation of talent leads to the generation of new knowledge and creative ideas and requires the formation of a policy of attracting talent to the country. An important strategic direction in such conditions is the creation of favorable conditions for the return of creative human capital in Ukraine.

In the context of the digitalization of the economy, it is important to combine creative skills with digital ones. Therefore, on the basis of the author's methodology, it is proposed to distinguish 5 conceptual types of employment: performer, artist, professional, digital, innovator [8]. The typology is built on the basis of a conceptual model, which provides for the ranking of labor activity on a scale from 1 to 9 according to the parameters of the level of digitalization and creativity of labor operations.

This typology was used to assess employment in the context of countries with different levels of economic development. It is advisable to assess

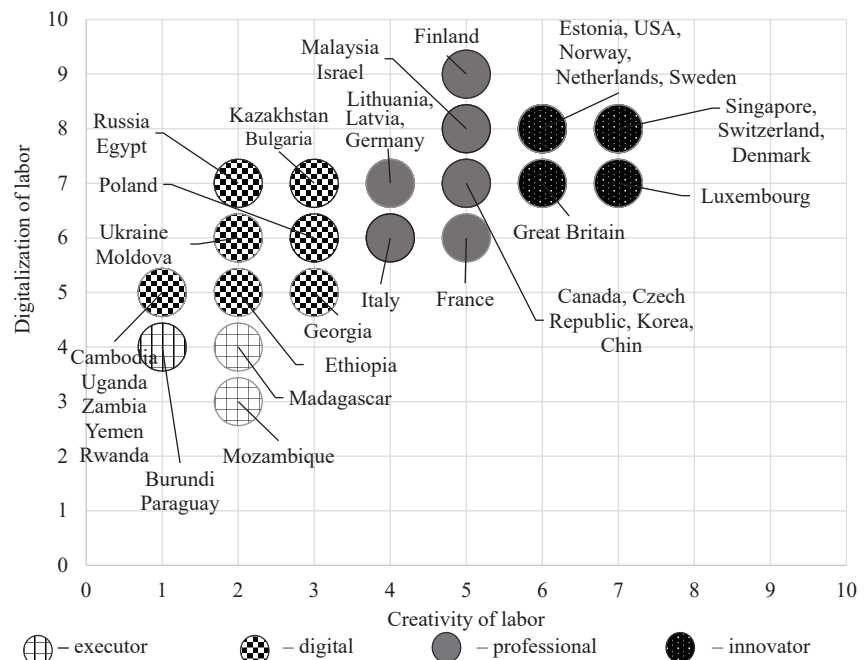


Fig. 1. Results of assessment of employment according to the author's typology, 2019

Table 2

Assessment of positions that have requirements for combining creative thinking and digital skills, %

Position	Yes	Probably yes	Hard to say	Probably no	No
Top managers	50.9	42.6	3.7	2.8	–
State manager	22.2	40.7	20.4	16.7	–
Researcher, scientist	50.9	40.7	7.5	0.9	–
Scientific and pedagogical staff	34.3	51.9	11.1	2.7	–
Teaching staff	27.8	50.9	14.8	6.5	–
Engineer	54.6	32.4	10.2	2.8	–
IT-specialist	83.3	15.8	0.9	–	–
Designer, new product developer	85.2	13	1.8	–	–
Marketer	53.7	40.7	5.6	–	–
Financier, economist, accountant	28.7	41.7	20.4	7.4	1.8

Note: the results of an expert survey conducted by the author [8]

The greatest importance of such communication skills of respondents to work in such professions as an IT specialist – 99.1 %, in second place – designers, developers of new products – 98.2 %. The third place was taken by marketers – 94.4 % and top managers – 93.5 %, and only then scientists and researchers – 91.6 %. In other professions, the assessment of the need for digital and creative skills is slightly lower, but in general it is also high and ranges from 62.9 % to 87.0 % [8].

Let's agree that education is a key part of human capital, and its goal is the intellectual resources of the individual [11]. The formation of creative skills occurs in the field of education, which necessitated an expert assessment of the orientation of the formal education system on this on a scale of 1 to 7 points (1 point is not directed at all, 7 points is directed completely). Expert assessments indicate an average level of focus on the formation of creative skills at all levels of education:

- initial 50 % (3 points – 28.7 %, 4 – 21.3 %);
- average 63.9 % (3 points – 32.4 %, 4 points – 32.5 %);
- professional 61.5 % (3 points – 32.4 %, 4 points – 29.1 %);
- above 50.9 % (3 points – 17.6 %, 4 points – 33.3 %) [8].

In general, the results of the survey indicate the need to strengthen the vector of orientation of formal education towards the formation of creative skills.

4. Conclusions

In the course of the study, the methodology for determining the country for the development of human creative capital in the global dimension is tested, which is based on the author's typology of employment. Based on the results of its use, it is determined that developed countries are characterized by a predominance of the «innovator» type, which is characterized by a combination of well-developed digital and creative skills. In countries that belong to the group of the least developed, the type of «performer» prevails. This type of employment is characterized by an insufficient level of development of digital and creative skills.

The group of countries that develop and to which Ukraine belongs is characterized by the predominance of the type of employment «digital». Human capital carriers of this type have well-developed digital skills. According to the results of the expert survey, two opposite tendencies are revealed. This is the presence of a demand for carriers of human capital with creative skills in the national labor market, with at the same time an insufficient focus of formal education on the formation of creative skills among applicants at all levels.

The research results will be useful in developing a national sustainable development strategy, implementation plans and monitoring their implementation.

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