"Impact of human resources in the creative sphere on economic development"

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NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
48	1	4

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IMPACT OF HUMAN RESOURCES IN THE CREATIVE SPHERE ON ECONOMIC DEVELOPMENT

Abstract

The industrial era is gradually giving way to a creative economy driven by human resources. This study aimed to assess the impact of human resources within the creative economy on countries' economic growth. The focus was on human capital involved in the creative economy. Panel data from 21 countries (2016–2023) were analyzed. The ILO classification methodology for employment types was applied. A fixed-effects regression model was employed to assess the impact of human capital on economic growth, while controlling for relevant factors. The model's coefficient of determination increased from 0.494 to 0.652 with the addition of new variables, indicating improved accuracy. These variables were used to assess the effect of creative economy indicators on GDP per capita across countries. A direct correlation has been established between the share of employed people involved in the creative economy and the country's level of economic development, specifically in terms of GDP per capita (Gini coefficient: $r = -0.431$, $P = 0.01$). The quantitative importance of human resources of the creative economy was calculated for both developed and developing countries of the world. The practical value of the obtained results lies in the possibility of their use for the development of public management decisions to stimulate the economic growth of the country.

Keywords	creative economy, human resources, creative potential, sustainable development, creative industries, GDP
JEL Classification	F66, O57, J24

INTRODUCTION

In the modern world, importance is attached to the creative economy sector, its formation, and development. The emergence of this trend is based on the rapid development of creative industries, which are in-demand and profitable sectors.

The share of the creative economy in the world is growing rapidly and contributes significantly to economic development and job creation. According to The Creative Economy Outlook 2024, the contribution of the creative economy to GDP ranges from 0.5% to 7.3% in different countries, with employment accounting for 0.5% to 12.5% of the labor force in countries for which data are available. Total exports of creative services are expected to reach US$1.4 trillion by 2023, almost double the exports of creative sector goods, reaching US$713 billion (UN Trade and Development, 2024), emphasizing the sector's significant contribution to international trade.

Among the leading countries in the development of the creative economy are Great Britain, the USA, Germany, and Japan. The above-mentioned countries implement strategies for the development of the creative economy, taking into account its contribution to GDP, at the lowest cost of resources compared to other sectors.

The pace of development of creative industries varies from region to region. In developed countries, such as the USA and EU countries, they have firmly taken their place in the structure of the economy, as there is a developed infrastructure for creative activity, state support, and a high standard of living, which creates favorable conditions for innovation and entrepreneurship (Domenech et al., 2021; Londar et al., 2020; Mickov, 2023). Measures to regulate and control copyright have also been developed to protect the interests of creators and owners of developments (Pandey & Mishra, 2025). In developing nations (particularly India and Brazil), the creative industries have significant potential for growth given the unique factors of these countries, such as rich cultural heritage and population growth (Gasparin & Quinn, 2021; Saintilan & Schreiber, 2023; Wyszomirski & Chang, 2023). At the same time, these regions have a number of challenges that are related to the unstable political environment, limited investment, and insufficient legislative regulation.

UN General Assembly Resolution 74/198 emphasizes the importance of regularly obtaining accurate and comparable data on the contribution of the creative economy to the Sustainable Development Goals (United Nations General Assembly, 2020). However, there are difficulties in quantifying the dimensions of this sector, particularly for states that lack sufficient assessment tools.

The focus of the world community on the creative industries was further emphasized by the United Nations in 2021, i.e., the "International Year of the Creative Economy for Sustainable Development." In other words, this area was recognized as undeniably important at the global level (United Nations General Assembly, 2020).

One of the key factors in the growing importance of the creative industries is human resources – creative people who can generate ideas and bring them to life. They are the driving force behind innovations and create special, in-demand products, which can influence the economy of countries as a whole.

The topic of human resources in the creative economy is relevant and significant for the research. The results of the analysis can be used to develop effective government programs that support creative industries, as well as to inform strategic decisions at the company and regional levels. In addition, this paper contributes to the development of the theory of economic growth, expanding the understanding of the factors that determine the long-term development prospects of countries.

1. LITERATURE REVIEW

The creative economy is a type of economy based on the capitalization of intellectual property in creative activities. The creative economy sector, in comparison with other spheres, is characterized by the fact that its main tool (knowledge), resource (information), and the result (product) are creative in nature.

This field is characterized in the scientific literature (O'Connor, 2024; Surodjo et al., 2022; Turgel et al., 2022) by a number of attributes:

- modern technologies are actively used to ensure increased productivity and automation;

- creative industries adapt quickly to changes in the external environment;

- a high level of social mobility, through which ideas, knowledge, and resources are actively exchanged;

- unique results, services, and products are created;

- socio-economic and environmental problems are taken into account, creators are looking for ways to solve them.

The sources of income in the creative economy are both final finished products and intellectual property rights arising from the use of products and the sale of their results. This industry consumes material resources at a minimal level, generating income, creating jobs, and fostering intellectual exports.

Consequently, the use of classical factors of production – labor, land, and capital – is not characteristic of the creative economy. The primary factors are a person's ability to think outside the box and generate ideas that lead to the development of a creative product. The basis of the economy in such conditions is the relationship between knowledge, intellectual property, creativity, and information technology.

At the core of the creative economy are the creative industries, which include art, innovation and business, covering a wide range of fields, from film and music to design and architecture. The heterogeneity of the concept of "creative economy" in the global context should be noted. According to the UN (UN Trade and Development, 2024), it includes crafts, advertising, film and music industries, fashion design and creation, and other industries focused on the results of intellectual activity. However, there are differences across regions as to which activities should be labeled as creative industries. Some countries, in addition to the activities mentioned above, include the entire information technology sector or only computer game development, while other countries even include gastronomy.

As an example, in the UK, the list of creative industries include marketing, software, apps and games development, advertising, crafts, television and radio broadcasting, photo and video production, film and music, design, architecture, fashion, theater, museums, galleries and art, publishing and libraries (Horban et al., 2021). Although this list is quite extensive, science and technology activities and tourism were not mentioned. In Thailand, creative industries encompass the latter two, as well as medicine and national cuisine (Dellisanti, 2023).

Ashley et al. (2024) noted that according to the chronological line of development of society, where on one side is predominantly human reproductive labor and on the other side is predominantly mechanized production labor, humanity at this stage is roughly in the center. The indicator of the number of creative workers in developed countries is about half of those employed in the economy, with a high growth rate of automation and digitalization of production. Accordingly, the role of managerial activity, which is also a creative process, is increasing.

In other words, there is currently no globally unified list of creative industries, which in a sense complicates comparative analysis based on data from different countries due to the heterogeneity of the data provided.

The methodology for calculating human resources in the creative economy, based on the principle of employees belonging to a creative profession, has a theoretical shortcoming. This is because many creative employees may be employed in non-creative occupations and vice versa. According to Hollands (2023), an ordinary worker can apply unconventional ideas in everyday activities, which makes his or her creativity higher than that of a professor who has been lecturing the same material for decades. Some professions are difficult to account for, such as freelancers (Varoğlu & Paliszkiewicz, 2023).

The creative economy is more dependent on human resources, as it is based on creativity. This implies both certain professional skills and a level of education, as well as a wider range of skills required to work in the creative industries.

Freeman (2015) analyzed the definitions of creative workers presented in the scientific literature, which resulted in the identification of the property of creative work that distinguishes them capaciously and sufficiently – the impossibility of automation (machinization) of the work of such a worker.

Studies focusing on human resources in a broad sense (including capabilities) and their importance in the creative economy agree in recognizing the importance of emotional intelligence, mental ability, and communication skills (Horban et al., 2021; Byrnes, 2022; Colbert & d'Astous, 2021). Creative thinking, the ability to collect and analyze data, and effective communication are the primary elements that enable professionals in the creative industries to generate new ideas, develop in-demand services and products, and collaborate in teams.

Other researchers who understand human resources in a narrow sense (only the economically active population) agree that a high level of the share of human resources involved in the creative

economy contributes to the greater emergence of new developments and their successful commercialization in the country (Amankwah-Amoah et al., 2024; Dellisanti, 2023; Gasparin & Quinn, 2021). This gives the country an advantage in global trade and international influence.

Measuring the quantitative values of human capital in the creative economy is a complex task. Research has proposed various methodologies to address this issue, including the analysis of professional skills, access to education, and the number of creative enterprises (Kuznetsova et al., 2022; McIntyre et al., 2023; Correa, 2021). However, there is currently no universal approach.

Investments in human resource development, including various educational initiatives, contribute to the growth of creative potential in the country, the emergence of in-demand developments, and the competitiveness of creative industry companies. Thus, a country can offer knowledge-intensive or culturally relevant products, laying the foundation for economic growth.

Academic research highlights the direct link between the development of human capital in general and the rise of creative industries (Hartley, 2021; Hill et al., 2023; Jian, 2023). Thus, Kuznetsova et al. (2022) emphasize that targeted investments in education in the field of culture and arts contribute to the rise in productivity and competitiveness of creative workers, having a positive impact on the country's economy.

Londar et al. (2020) examined the experience of Central and Eastern European countries. The results emphasize that increased attention to human resources, such as the introduction of experience exchange programs and internships, facilitates the creation of creative associations and the development of entrepreneurship in the creative sphere.

Despite the positive results, supporting human resources in the creative economy faces various challenges. One of them is the precariousness of employment in creative professions (Virani, 2023). Many workers in this field are employed on short-term contracts or as freelancers, which makes them much more vulnerable to political and economic instability and worsens their prospects in the long term.

A barrier to economic growth based on creative industries is the problem of uniting all representatives of human resources. Thus, a gender gap exists in opportunities and incomes in the creative professions (Eurostat, n.d.). In the vast majority of countries, women have lower earnings and are less likely to be considered for more prestigious positions than men. In the Eurostat reports, the gender breakdown is presented separately in almost every type of report provided. In addition, the advantage of human resource development in the creative economy can be achieved by attracting young professionals, people with disabilities, and other socially vulnerable segments of society, which leads to a reduction in unemployment. Khussainova et al. (2023) noted that Kazakhstani inclusive growth is perceived as economic growth distributed throughout society in a fair way, creating opportunities for all people.

Public policy has also made a significant contribution to increasing the share of people employed in the creative industries. A number of researchers agree that measures to support education, create a favorable tax environment, fund thematic projects, and provide regulatory protection for the creative sector (including copyright protection) are beneficial to the growth of creative employment and the economy as a whole (Gasparin & Quinn, 2021; Keane, 2024; Madichie & Hinson, 2022). One successful example of state aid is Vietnam, where, in 2016, the World Bank and the Vietnamese Ministry of Planning published the program "Vietnam 2035: Towards Prosperity, Creativity, Equality and Democracy," aimed at promoting education, innovation capacity, and supporting national culture (Gasparin & Quinn, 2021).

Thus, the research theoretically establishes the importance of human resources in creative industries for a country's economic growth and empirically confirms the significance of influencing factors, such as investment, human capital, and government support. The importance of creating innovations and cultural products and services, and developing the basis for creative industries, should be the focus of countries interested in economic development. Nevertheless, the relationship between the human resources of the creative industries and the economic growth of a country needs to be investigated using sound economic and mathematical methods.

In this regard, the purpose of this study is to assess the impact of human resources of the creative economy on the economic growth of countries. The study suggests that

H1: *An increase in the share of human resources of creative industries contributes to the development of the country's economy.*

2. METHODS

The paper employs the method of panel data analysis, utilizing econometric tools, which enables the most accurate assessment of the dynamics between the variables under study.

In tracking the identified socio-economic transformations, mathematical analysis is not the main tool for a number of reasons. Mathematical modeling involves the abstract study of a subject through calculations (Barnes & Fulford, 2008). Economics is a humanitarian science, in which only a part of the phenomena is subject to calculation, for example, the calculation of the number of employed people, the share of different professions, etc. Other economic concepts are introduced into the model indirectly, using appropriate mathematical indicators, e.g., GDP, the share of people with higher education, etc. The model is based on the model's data.

In addition, economics, as a human science, is affected by rapidly transforming trends and tendencies affecting the objects of research and their exposure to the influence of a large number of factors from different vectors (Howkins, 2002). In other words, the mathematical modeling used does not replace the study of non-mathematical data; it represents only an additional argument to support the hypothesis put forward.

The comparison of countries is based on a harmonized indicator, rather than taking each country's data separately and reducing them to a common form. For this purpose, the employment parameter taken from ILOSTAT calculations based on ISCO-08, level 2 (International Labour Organization, 2012) was used. The International Standard Classification of Occupations (ISCO) is a classification of employment groups developed by the International Labour Organization (ILO).

It was decided to use the country's GDP to assess economic development, as the growth of this indicator, in a simplified form, is taken as a measure of progress in the economy's development.

An in-depth study reveals situations in which the increasing dynamics of GDP have no connection with positive phenomena in society. For example, public attention to recycling or clean transportation can reduce GDP due to a decrease in the need for gasoline-powered cars, lower fuel consumption levels, or lower healthcare costs (Yadav & Williams, 2021). There are also opposite situations where an increase in spontaneous purchases as a result of massive marketing is reflected in an increase in a country's GDP figure while having a negative impact on the welfare of the population (Ali & Anwar, 2021). Despite this, for the purpose of this study, this indicator will suffice with the condition that the degree of imprecision that is acceptable in economic research will be included in the interpretation of the data.

The study tests the relationship between the share of people employed in creative industries and the level of GDP per capita. This test is conducted in relation to human resources already involved in the creative economy, without taking into account the part that characterizes the potential. In other words, human resources, which by their characteristics can be involved in the creative economy, were not considered. This block requires more extensive research, which can be realized in the future.

For the study, data were obtained from 21 countries for the period from 2016 to 2023. The list of countries was based on three criteria:

- the sample should include states from different regions;

- the sample should include states of different levels of economic development;

- statistical information on these countries should be available.

Through correlation analysis, the relationship between GDP per capita and the influence of selected economic sectors was determined. GDP per capita

was chosen as the dependent variable (logarithm of the variable to equalize the difference between large and small economies of countries) (Table 1).

Table 1. Variables of the mathematical model

Designation	Commentary
HRCE	Share of human resources in the creative sector in relation to the total number of employees for the periods, in %
N	Aggregate parameter on revenues from exports of different types of fuel, oil rent, as % of the country's GDP
G	Gini coefficient according to The World Bank
H	Multidimensional poverty rate (share of population)
I_{log}	Prologarithmized foreign direct investment in USD
T	Aggregate parameter on revenues from taxes and fees, in % of the country's GDP

Creative activity and the resulting economic impacts have a time lag (Gouvea et al., 2021); therefore, the variable that reflects the HRCE share is added to the model with a lag of one and two years. The initial estimation of the model is done using the most significant control variables related to GDP. Minimizing multicollinearity and improving the accuracy of the coefficient estimates is achieved by omitting variables that have a high degree of correlation with the HRCE variable. These include the share of the service sector, education-related indicators, and patents. There may be bias in the estimates if such variables are added.

A fixed-effects model of the following type is applied:

$$GDP = Const + k_1 \cdot HR_{CE} + k_2 \cdot N + k_3 \cdot T$$
$$+ k_4 \cdot G + k_5 \cdot H + k_6 \cdot I_{log} + E, \quad (1)$$

where $Const$ – denotes the constant term of the equation; k_{1-6} – represents the factor coefficients; $HRCE$ – the proportion of human resources in the creative economy relative to total employment over time, expressed as a percentage; N – the aggregate indicator of revenues from exports of various types of fuel and oil rents, as a percentage of the country's GDP; T – the aggregate indicator of revenues from taxes and duties, as a percentage of the country's GDP; G – the Gini coefficient; H – the Multidimensional Poverty Index (MPI); I_{log} – the logarithm of foreign direct investment (FDI), in USD; E – the standard error.

The hypothesis of a stable and statistically significant impact of the variable characterizing the share of HRCE in the economy was tested. The analysis is based on panel data for the period from 2016 to 2023 (eight observations). To account for possible unobserved heterogeneities between the objects and to choose between fixed and random effects models, the Hausman test in the SOFA Statistics statistical package was applied.

3. RESULTS

The final list for analysis included the USA, the UK, France, Spain, Kazakhstan, Portugal, Germany, Italy, Poland, Hungary, Bulgaria, Latvia, Iran, Estonia, Ukraine, Norway, Mongolia, Romania, Turkey, and Finland (Figure 1).

The analysis of correlations between the variables of the model did not reveal significant multicollinear dependencies. The maximum absolute value of the Pearson correlation coefficient between the regressors and human resources of the creative sphere did not exceed 0.5, indicating the absence of a strong linear relationship between these variables.

The null hypothesis of consistency of the estimates obtained by the ordinary least squares method was rejected. The asymptotic statistic of the Hausman test was 162.62 with a p-value equal to 1.64201e-031. Thus, the random-effects model was found to be inadequate, and the fixed-effects model was preferred. Next, Table 2 shows the data from the regression analysis.

HR_{CE1} in case I and II has a negative and significant coefficient (–1.611 and –1.627, respectively), indicating a negative impact on GDP. However, in case III and IV, the impact becomes positive and significant (0.3854 and 0.3862).

HR_{CE2} has a positive and significant effect in all specifications, with its effect increasing in more complex models (from 0.5358 in model II to 1.538 in model IV).

The model included factors that, although they do not have a direct impact on the indicator under study, significantly affect the dynamics of indica-
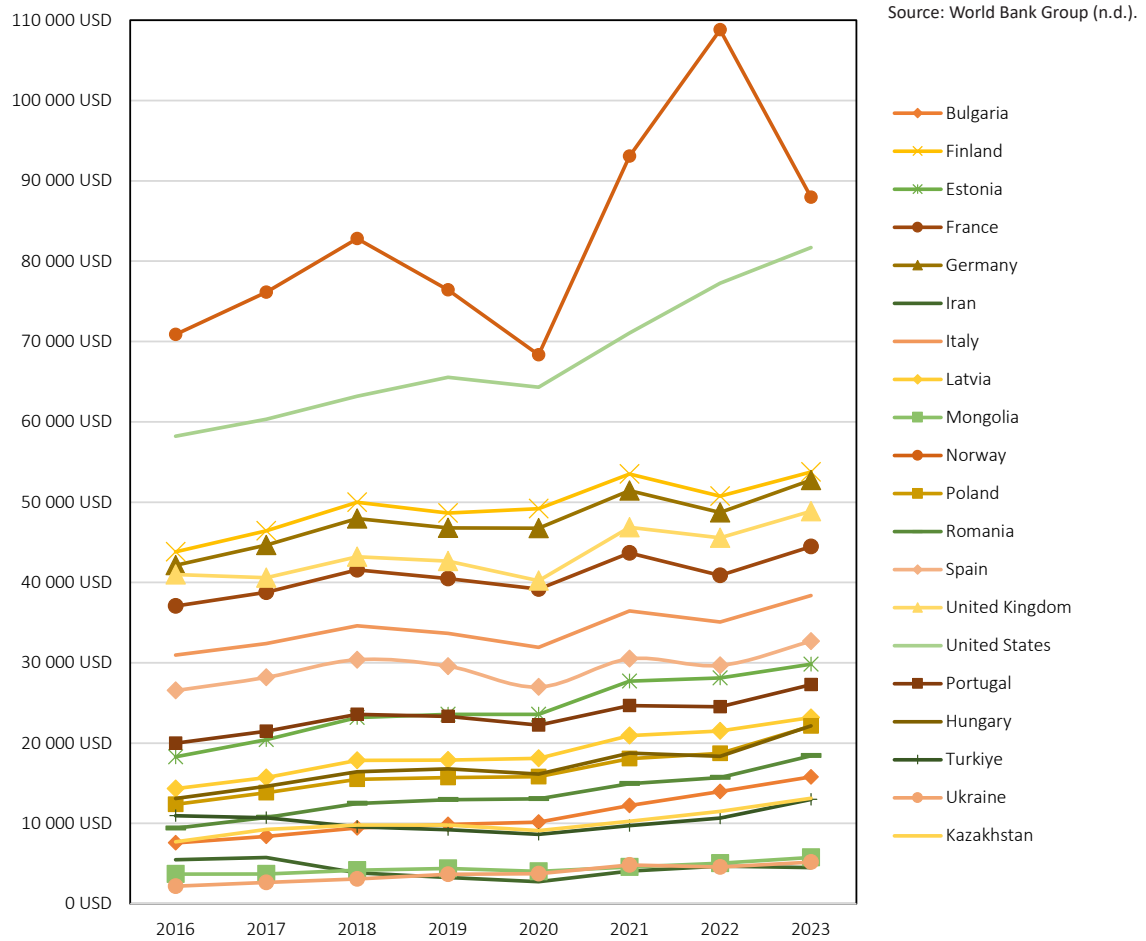
Source: World Bank Group (n.d.).

Figure 1. GDP per capita by country list, USD

Table 2. Panel data analysis (fixed effects method for modeling the dynamics of prologarithmic GDP per capita)

Indicators	I	II	III	IV
Const	9.181***	11.42***	10.11***	10.10***
	(0.3054)	(0.2674)	(0.4266)	(0.4320)
$HRCE_1$	−1.611**	−1.627**	0.3854**	0.3862**
	(0.3617)	(0.2683)	(0.2951)	(0.2946)
$HRCE_2$	0.5678**	0.5358***	1.550***	1.538***
	(0.2420)	(0.1772)	(0.3842)	(0.3881)
N	−0.101***	−0.235***	−0.421***	−0.405***
	(0.0768)	(0.0784)	(0.1018)	(0.1118)
T	0.07311***	0.06755***	0.06845***	0.06873***
	(0.01576)	(0.01427)	(0.01116)	(0.01109)
G	–	−0.06741***	−0.05995***	−0.06105***
	–	(0.009523)	(0.006141)	(0.006924)
H	–	–	0.7596***	0.7617***
	–	–	(0.1163)	(0.1171)
I_{log}	–	–	–	0.001257
	–	–	–	(0.00115)
n	130	130	130	130
R^2	0.494	0.577	0.649	0.652
L_{log}	−212	−192	−171	−171

Note: Significance levels in the table are labeled with *** = 0.01, ** = 0.05.

Table 3. Correlations of HRCE

Indicators	HRCE	N	G	H	I_{log}	L
Pearson (r)	1	−0.114**	−0.431**	−0.088	0.043	0.356**
P	–	0.0055	0.000	0.115	0.115	0.000
N	168	168	168	168	168	168

Note: ** Correlation significance 0.01 (two-way correlation). The correlation was not found to be significant at the 0.05 level.

tors in the long term. The results of calculations showed that the impact of human resources of the creative economy is manifested with a certain time lag, and the most pronounced effect is manifested in the two-year period.

A weak but statistically significant negative correlation ($r = –0.114$, $P = 0.0055$, significant at the 0.01 level) between income from natural resource exports and HRCE should be emphasized. This suggests that economies with higher income from natural resource exports have a lower share of human resources in the creative sector. Resource-dependent economies invest less in creative and innovative industries.

In countries with high levels of inequality (G), the creative economy is less developed (moderate negative correlation: $r = –0.431$, significant at the 0.01 level). This may be explained by the fact that high levels of inequality narrow access to education and opportunities to work in creative fields.

The correlation between the share of creative human resources and foreign investment is weak and statistically insignificant. This may suggest that foreign direct investment is not specifically targeted at the creative economy.

In general, the above model confirmed a statistically significant relationship between the share of human resources of the creative economy in the structure of employment and GDP per capita. In other words, an increase in the number of people employed in creative industries leads to positive dynamics of the country's economic condition.

The analysis suggests that countries with a higher GDP per capita have a higher percentage of people employed in the creative sector in relation to the total number of employed people. To test this assumption, the study estimates the average value of the indicators "GDP per capita, USD" and "Share of human resources in the creative sector in re-

lation to total employment, in %" for the period 2016–2023 for selected countries. Next, the countries are divided into three groups based on the indicator "Average GDP per capita" (Table 4). This division is based on the classification of countries by income level, according to the World Bank methodology: Group 1 – high-income developed economies (over $40,000), Group 2 – middle-income countries ($15,000–$30,000), and Group 3 – low-income countries ($5,000–$15,000).

Table 4. Comparison of GPD and HRCE averages for 2016–2023

Country	Average GPD per capita, USD	Average HRCE value, %
Norway	83,049	7.2
The United States	67,699	9.0
Finland	49,501	6.9
Germany	47,647	7.6
The United Kingdom	43,618	9.6
France	40,762	7.2
Italy	34,184	6.0
Average for Group 1	52,351	7.6
Spain	29,314	6.9
Estonia	24,335	5.6
Portugal	23,384	5.4
Latvia	18,687	4.9
Hungary	17,041	4.5
Poland	16,514	4.8
Average for Group 2	21,546	5.3
Romania	13,461	3.9
Bulgaria	10,927	3.4
Turkiye	10,312	4.6
Kazakhstan	10,075	3.0
Mongolia	4,422	2.9
Iran	4,298	3.2
Ukraine	3,740	3.7
Average for Group 3	8,176	3.5

Table 4 shows that countries with a high value of GDP per capita have a higher proportion of the population involved in the creative sphere than countries with a low value of GDP per capita. For

example, for Group 1, high-income countries, the average HRCE is 7.6%, for Group 2, middle-income countries, it is 5.3%, and for lower-income countries, it is 3.5%. This further supports the conclusion that the development of creative human resources contributes to economic growth.

4. DISCUSSION

In the present study, the hypothesis of a direct correlation between the proportion of HRCE and GDP per capita was confirmed, which leads to the need to discuss the problem of building up such resources.

There are studies with similar results. Kalfas et al. (2024) examine the impact of creative industries on European regions, focusing on their economic, social, and cultural contribution. Their roles in job creation, GDP growth, innovation, social cohesion, cultural identity, urban regeneration, and the revitalization of depressed areas are analyzed. The evidence proves that the economic importance of creative sector workers is comparable to that of traditional industries. The advantage of this current study is a wider sample of countries for analysis, which allows one to extend the results to both developed and developing countries.

Batabyal (2021) calculated the optimal number of creative employees of the city and compared the costs of attracting such employees and their efficiency. There are great doubts about the constructiveness of this approach for several reasons. The first reason is that the definition of the "optimal number" of HRCE in a location is incorrect: redistribution in the absence of increasing the total number is extensive, which can be used only as additional goals when taking into account the main one – the transformation of society, in which creative activity is free, preferential, and ubiquitous.

Ideally, creativity is applicable to any production and service sector if the result is unique and creative. A creative employee will prefer efficient and useful activity over all forms of labor incentives.

This study also criticizes the cost-effectiveness of HRCE. It is incorrect to measure HRCE through an assessment of economic efficiency, including

profit and return, to justify its investment attractiveness. For example, from the perspective of public utility and development, the most important role is played by workers in the social sector of the economy, whose productivity is debatable. Sectors producing public goods often appear unprofitable due to the long time lag before the effects of investments are realized, as well as the difficulty in evaluating and selecting criteria. That is why Batabyal and Beladi (2024) focused on political, fiscal, and economic measures to support the creative region.

Summarizing other approaches (Ikram, 2022; Mellander & Florida, 2021; Gathen et al., 2021) to creative class expansion, the following conditions can be formulated:

- innovation and technological level of development;

- investment support for science and creative start-ups;

- the number of residents with higher education;

- freedom of speech and creativity.

However, before creating and supporting these conditions in order to estimate the growth of HRCE number it is necessary to transform the activity of national statistical services in developing countries: if it is impossible to estimate primary information on specialties, it is necessary to carry out fractional differentiation of occupational groups, which are described in published data. It is advisable to harmonize the data obtained with the ILO international classifier. In cases where there is detailed information on the composition of the labor force of the state, in the long term, it is possible to analyze the regional distribution of HRCE and migration management of their representatives based on the successful experience of other countries (the USA, England, or Canada).

One of the most important components of HRCE in any country is the system of education and science (Bridgstock, 2022; Patston et al., 2021). Expansion of admission places for creative specialties and the addition of creative courses to the educational programs of other specialties would

lay the potential for HRCE. The introduction of creativity grants in existing scientific organizations can serve as a measure to stimulate researchers to produce unconventional and creative results.

However, even successful reforms in the science and education systems will not remove serious obstacles to HRCE intensification. This refers to the structure of emerging jobs, which is not identical to the demand for the labor force, although it is the basis for it. The existing structure of the economy does not allow for the full implementation of the necessary creative component at the current stage of production development. Studying modern technological opportunities (including digitalization, automation, artificial intelligence) and the needs of the population, among which are the problems of global poverty, inequality, hunger, ecology, there is an objective need to expand creative work.

At the same time, considering the socio-economic motives of development, which are driven by late capitalism (Virani, 2024), the economy is moving along the vector of profit maximization, implying that costs are reduced not through creative labor, but through machine labor. In addition, the main sign of limitation of qualitative development is the deformation of the essence of creative activity, when the creative result is passed off as creative imitations (pseudo-creative results) in order to receive a targeted reward.

Quality, socially oriented economic development is based on stimulating and encouraging the real essence of creative labor – creation aimed at producing unique goods for the benefit of society.

The current economic structure does not allow solving this problem naturally. Despite this, it is possible to try to artificially change the structure by stimulating the demand for creative labor by the state. In the long term, a new era of creative postcapitalism, ensuring active economic growth, is achievable by transforming the values of socio-economic development.

CONCLUSION

The development of creative industries is one of the important areas of the economy for both individual countries and the world system as a whole. In the context of globalization and rapid technological progress, creative industries are becoming key drivers of economic growth. In this regard, investments in human resources of this sphere can contribute to the competitiveness of the economy as a whole, which, in turn, affects the social welfare of the population.

The purpose of this study was to determine the impact of human resources of the creative economy on the economic growth of countries. The analysis of panel data proved that there is a direct correlation between the share of employees involved in the creative economy and the level of economic development of the country, in particular, with such a parameter as GDP per capita (Gini coefficient: $r = -0.431$ at $P = 0.01$).

Using fixed-effects regression analysis, the impact of human resources in the creative sector on economic growth is estimated, controlling for other significant factors. The increase in the coefficient of determination from 0.494 to 0.652 in the models indicates that the quality of the model improves when new variables are added. They were used to calculate the impact of creative economy parameters on the level of GDP per capita based on data from a number of countries.

The comparative analysis of the average indicators for GDP per capita and Share of human resources in the creative sphere in relation to the total number of employed persons divided the selected countries into three groups according to the level of profitability of their economies. Moreover, it was established that the countries with higher GDP per capita have higher indicators of the population's involvement in the creative sphere. The results of correlation and regression analysis confirm this outcome.

Thus, the quantitative importance of human resources of the creative economy in both developed and developing countries of the world has been calculated. The practical value of the obtained results lies in their potential application to inform public decisions on managing individual segments of the economy and stimulating the country's economic growth.

The limitations of this study center on two areas: as the sample of countries studied expands, the results may change; regional and cultural characteristics may also influence the indicators studied. Future research efforts may include additional methods, such as multiple regression, factor analysis, and cluster analysis, to gain a more comprehensive understanding of how human resources involved in the creative sector of the economy affect the level of development in countries.

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