CREATIVE ECONOMY AND FEATURES OF CULTURAL FACTORS MEASUREMENT

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Annotation. In this article, the author considered cultural factors as one of the creative economy basis, which is rapidly developing at present. The study built a logical chain of the evolution of a creative economy: from the values formation, as the basis for the intellectual classes' development in different countries, to the evolution of creative industries on the example of the Europe most developed countries. It is proved that culture as a set of citizen's values of various European countries is slowly transformed. In the most developed countries of Europe, the values of self-expression and rational values dominates. It can be argued that the cluster of countries has been formed in Europe with a high growth rate of the creative economy, which is about 7% of employment on average through the technologies integration. Qualitative analysis of the European countries values (rationalism, expression) and a quantitative analysis of the development of a creative economy on the basis of an employment assessment (about 7% in different countries of Europe) confirms the relationship of culture and economic growth in the creative sectors.

The article based on quantitative indicators and 3T model analysis. The development of technologies, talents, tolerance led to creative economy rising and employment growth in the creative sectors: 1) an increase in the high technologies export of the EU countries; 2) the research and development costs growth in EU countries, stable innovation growth; 3) the growth of the creative economy occurs significantly faster than other sectors, annually the growth rate is 4% since 2011.

Keywords: creative economy, human capital, cultural factors, creative economy.

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INTRODUCTION

Many factors affect the economy development in the country and the world. Most of them relate to the financial economy component, relationships between individual entities, etc. However, there are such factors that, at first glance, may not have any impact, but with a more careful study, it becomes clear that their role in the economy is no less significant. One of these factors is the culture and its components, primarily the society values (socially appreciated perceptions), which determine the economic behavior and the level of economic freedoms.

For a long time, the role of culture in the economy growth was not reliably determined. However, in the last decade of the XX century. The world spoke about the phenomenon of the creative economy, the emergence of economic systems that stimulate the human creative potential. In matters of assessing the region position in the creative economy, the so-called Creativity index was introduced, including basic evaluation indicators. Among the main trends are the creativity development and creative industry centers, cities, clusters (Florida, 2006A).

The first trend indicates the emergence of regions that become key innovative centers (while in other regions the population represents a working or servicing classes). There were always cultural colonies (Greenwich Vingond), University (Madison, Boulder), production centers (Pittsburgh, Detroit), but never before this prevalence was not so common.

The second trend talks about the leadership of creative aggregations, clusters in which creative industries develop, which significantly affect the economic development (Collins, 2009; Florida, 2022). Analysts, exploring the creative economy transition, drew attention to the phenomenon accompanying this process, it turned out to be the formation of a new class designated as a creative economy of the creative era. After the first decade and the first mention of the creative class, a monographic study of Professor of the School of Public Policy of the University of J. Mason (Washington) Richard Florida was published. The study was presented an intriguing headline “Creative Economics: People who change the future”. Shortly after the release of the Harward Business Review magazine, the book R. Florida was called “one of the best innovative ideas” (Florida, 2022). Analysts spoke about the emergence of a new public class, about creativity as capital and the product of the innovation era. Special attention has been drawn to the phenomenon of the creative economy growth, on creativity as an elimination of competitive advantages and product of a new creative economy.

The subject of the study is to measure creativity, characteristic of the economy based on knowledge and innovation. In addition, because the new class was allocated based on the economy, creativity was declared the driving force of economic development, the creative economy itself occupied the leading position in society.

Literature review

Cultural factors as the basis for the formation of a creative class

The reflection of the lifting experienced by the creative class, starting from the first decades of the XXI century, was the phenomenon of the so-called “cultural shift” observed in the designated class value system (the concept of class as a social subject involves structural design on the platform generally shared values). Values always play the role of catalysts: it provide integration and stability of such social community as a class (Zankovsky, 2011). The concept of “value” is used in relation to various types of selective orientations, “interests, preferences, duties, moral obligations, desires, goals, needs (position R. Williams) are reflected in values” (Matsumoto, 2010). In the value system, general representations, evaluation

criteria, preferences, behavior models are combined (Brun, 2001). In T. Parson theory, the values are given the status of elements of the generally accepted symbolic system as a criterion or standard used when choosing changing alternatives of orientation. Thus, such values play the role of the cultural models components and traditions. The culture system itself is presented as a regulatory (Parsons, 1950). M. Weber considered the value orientations of the Europe countries, built on innovations, honesty, work, as cultural factors of capitalism, which were characterized by the population of different European countries and became the foundation for the development of creative sectors in the 1960s (hard work, respect for time, investments, innovation, honesty).

In the book "Culture in Economic Science: History, Methodological Recommendations and Practical Application Areas" (Avtonomov et al., 2017) uses the term "Cultural Economics". If we consider culture as a set of material and spiritual values, or a set of human behavior rules, then "Cultural Economics" means economic culture (valuables) or an economy based on culture, rules of conduct.

Sh. Boegelsdayka and R. Maslaland distinguish the concepts of understanding culture and economic culture (Avtonomov et al., 2017):

1. Culture is an artificially created result of human activity, including when interacting and communications, which form social capital ("communications").

2. Culture as ideas and ideology, which determine behaviors, which primarily depends on the development level of consciousness and personal thinking of a certain nation, mental and cognitive settings of economic culture.

3. Culture as a norms and values that regulate economic behavior that perform the function of determining the economic activity forms.

Creative Economy Evolution: The emergence of class structures

The creative economy evolution began in the 1960s. It was reflected in the works of P. Druker and F. Makhlup, where the authors called the "intellectual labor employees" included in the new professional group. Decade after, D. Bell described another meritocratic structure (scientists, engineers, representatives of the management teams); concept of "professionally administrative class" was introduced (Bassin et al., 2015). He entered the "Symbolic Analytics" use.

As R. Florida writes (2006b) about class determining, it focused on the methods of self-realization of subjects in social groups on general identity, at the basis of which is the economic function of the creative economy. This function identifies a variety, security, disagreement with organizational standards, interests, social and cultural preferences, the social identity of the subjects of the creative economy. Florida, Gates, Knudsen & Stolarick (2006) conducted an empirical analysis of the universities role in the economic development of 3T model, analyzing the effects of scientific research and development of universities, technology transfer, influence of students and faculties for regional technologies, talents and tolerance for all 331 USA regions.

With the development of class structures, creative industries evolve. The term "cultural industries" was distributed in the 1980s and treated the forms of cultural production and consumption, which is based on a symbolic or expressive element. Over time, the concept was common to UNESCO worldwide only since the eighties, and its definition gradually covered a wide range of industries: music, industries related to art, writing, fashion and design, media, as well as handcraft production. However, with the 90-th of the XIX century, the concept is also used to describe creative industries. This term refers to very large production, which

includes goods and services produced by the cultural industries and dependent on innovation.

Creative economy, a certain UNCTAD and UNDP as a "developing concept, based on creative assets, potentially providing economic growth and development" (G20. Creative Economy 2030). The creative economy is determined by the Ministry of Culture, Media and Sports of UK (Department for Digital, Culture, Media & Sport, DCMS) as employment in creative industries, as well as creative jobs built out of creative industries in a wider economy. The creative economy is an ecosystem that includes a wide range of classes that differ in the creation of wealth and jobs at the expense of individual creativity, which contributes to the creation and use of intellectual property (Delloite).

In addition to the concept, the creative economy in the literature considers such concepts as cultural and digital capital, which have a great contribution to the practice of creative workers and societies (Roberts & Townsend, 2016). Technologies contributed to the expansion of the potential of rural residents and the possibility of participating in different markets of creative industries. According to Roberts & Townsend (2016), broadband Internet access and online practices affect creative work in rural areas and, in turn, as it allows creative people to participate at different levels in their rural communities, thereby contributing to research as stability rural communities and rural creative economics.

Methodology

The study uses methods for analyzing and synthesis for systematization of scientific papers, which identified the relationship of cultural factors and creative economics. An analysis of the creativity index in developed countries was carried out.

The study uses the concept of "3T-Development" (technology, talent, tolerance) for analyzing the development of a creative economy through an assessment of technology export growth, research and development costs, quantities of resident patents in developed countries. The concept of "3 T-Development" for the centers of technology concentration, talents, tolerance within the creative economy is a significant engine for investment, innovation generation, economic growth (Florida, 2022). Analysis of the World Bank data is used to evaluate, which indicate outgoing dynamics in the development of creative industries.

RESULTS

In the Creative Economy, production and consumption are based on intellectual capital, technologies, talents and tolerance, and creativity is closely related to economic and social development (Culture and Creativity, 2015).

The development of the creative economy occurs in a rapid pace, and 2021 was declared the United Nations International Year of the Creative Economy in the interests of sustainable development. G20 countries recognized the culture and creative industry by the driving forces of increasing economic sustainability, sustainable development. The Ministers of Culture in G20 countries are recommended to include the cultural heritage and the creative sector in the recovery strategy after a pandemic (UNCTAD).

In 2021, the resolution of the 74th session of the United Nations General Assembly, proclaimed the international year of the creative economy in the interests of sustainable development, confirmed the growing role of the creative economy in the world stage (G20. Creative Economy 2030), on which technology, small enterprises, informal business and new employment forms contribute to the development of creativity.

In the context of the Concept 3T, consider the dynamics of the main indicators of technology development, talents, tolerance. In the study of the Institute of Martin Global Creativity Index

2015, the new model of economic development "3T" is talent, technology and tolerance. The model ranks 139 countries for each indicator, which are measured as follows (Table 1):

Table 1

Global Creativity Index in most developed countries, 2015

	Technology	Talent	Tolerance	Global Creativity Index
Australia	7	1	4	0,97
USA	4	3	11	0,95
New Zealand	7	8	3	0,949
Canada	13	14	1	0,92
Denmark	10	6	13	0,917
Finland	5	3	20	0,917
Sweden	11	8	10	0,915
Singapore	7	5	23	0,896
Netherlands	20	11	6	0,889
Norway	18	12	9	0,883
United Kingdom	15	20	5	0,881

Source: European Union (2015)

The first component of the model 3T is technology and it is measured as investments in research and development and the number of patents per capita. Universities are the centers of advanced studies in a number of areas, from software to biotechnology, and are important sources of new technologies and their commercial implementations. The export volumes of high technologies in developed countries are gradually increasing, especially in China and developed EU countries, where a high level of concentration of creative classes (Figure 1).

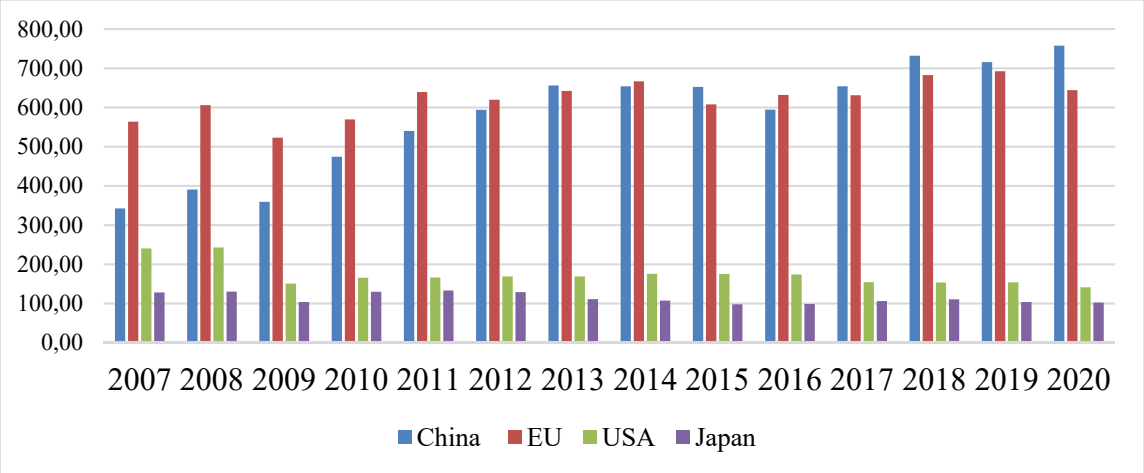

Figure 1. High technology exports from developed countries in 2007-2020, billion dollars.

Source: WorldBank (2022a)

Table 2 shows the costs of research and development in developed countries in the world in 2000-2020, which are talking about the gradual growth of countries'

investment creative economy. For example, the average value of the indicator was 2.18% of GDP in EU countries, 1.92% of GDP - in Singapore, 2.83% of GDP - in the US, 1.87% of GDP - in Australia.

Table 2

Dynamics of research and development costs in developed countries in 2000-2020, % of GDP

Country	2000	2010	2017	2018
Australia	1,57558	2,37586	1,87466	1,87466
Canada	1,86469	1,82958	1,66886	1,56287
Germany	2,40982	2,73024	3,06792	3,13267
Denmark	2,32466	2,91707	3,05015	3,03292
EU	1,752493	1,96955	2,170935	2,188633
Finland	3,24138	3,70532	2,73349	2,75572
United Kingdom	1,61712	1,64564	1,68022	1,70274
Netherlands	1,7898	1,70404	1,98308	2,16374
Norway	1,56259	1,64999	2,09919	2,07264
New Zealand	1,10029	1,2523	1,34692	1,34692
Singapore	1,81699	1,93137	1,92465	1,92465
Sweden	3,8738	3,16789	3,36279	3,31278
USA	2,62879	2,7354	2,81741	2,83283

Source: WorldBank (2022b)

Table 3 reflects the dynamics of the number of patents of residents of developed countries, which indicates the stability of technology development, especially in Germany, Great Britain, USA.

Table 3

The number of patents of residents of developed countries, 2000-2019

Country	2000	2010	2017	2018	2019	Growth, 2019-2000, +/-
Australia	1928	2409	2503	2757	2637	709
Canada	4187	4550	4053	4349	4238	51
Germany	51736	47047	47785	46617	46632	-5104
Denmark	1730	1626	1490	1262	1351	-379
EU	96284	94332	91618	89574	88889	-7395
Finland	2579	1731	1390	1387	1321	-1258
United Kingdom	22050	15490	13301	12865	12061	-9989
Netherlands	2465	2527	2241	2111	2228	-237
Norway	1311	1117	1152	1082	957	-354
New Zealand	1463	1585	1014	1017	324	-1139
Singapore	516	895	1609	1575	1727	1211
Sweden	4224	2196	1992	1838	1802	-2422
USA	164795	241977	293904	285095	285113	120318

Source: WorldBank (2022c)

The second component of the 3T model is talent that measured as the proportion of adults with higher education and labor in the creative class. Universities have an amazing property of attracting talented people as a magnet. Attracting the leading researchers and scientists, universities thus motivate graduate students, generate the creation of scientific and practical preparations and commercial companies that are placed nearby, creating a self-reproducing growth cycle. For example, in the US, the creative economy has 38 million representatives that is more than 30% of the US workforce. According to the forecasts of the analytical center of the G20 Insights, by 2023 the global assessment of the creative economy will reach $ 985 billion, accounting for about 10% of global GDP by 2030 (G20, 2022).

About 8.5 million people are employed in creative sectors in European countries, and much more, if we take into account their influence on other sectors, such as tourism and information technology. For example, in Italy in 2014, enterprises of cultural and creative sectors produced 78.6 billion value added and stimulated other sectors of the economy to create 15.6% of the total value added, equal to 227 billion euros, including the income of the part of the national economy, which is directly related to the culture (for example, tourism).

Before the pandemic, the creative economy grew quickly and created new jobs in all regions of the world, which, according to forecasts, by 2030 will account for up to 10% of global GDP. The crisis of 2020-2021 stopped this exceptional growth, weakening the sector in which micro enterprises, informal working methods and a small amount of material assets dominate. Quarantine measures also emphasized the importance of cultural and creative activities to maintain the personal well-being and sustainability of society (G20. Creative Economy 2030).

Creative economy generates social and cultural capital for the whole world. In South Africa, the culture and creativity industry made 5.6% of the gross domestic product with a tendency to increase in the pre-crisis time. In Nigeria, the musical industry grew by 13.4% per year. In the Nigerian film industry, known as “Nollywood”, employs about a million people, and, releasing more than 2,000 films a year. In Kenya, the entertainment and media sector grew by an average of almost 7% from 2014 to 2018 (G20. Creative Economy 2030).

The countries in the whole world are focused on investments in infrastructure, including social facilities in little developed regions. This is evidenced by the Regional EU Cohesion Policy, whose budget is aimed at regional development programs to stimulate economic growth, employment, social integration and cooperation (Cohesion Policy 2021-2027). Direct financing of national and regional jobs, growth projects is 369 billion euros and allocated to the European Regional Development Fund (ERDF), the European Social Fund + (ESF +), Cohesion Foundation and the Just Transition Fund Foundation. For the period up to 2030, the creative economy can play an important macroeconomic role in supporting a person's sustainable development policy, since it is recognized as a doubling of the Creative Europe financing program by the European Commission in May 2021 to 2.3 billion euros. Thus, there is a key question about whether it is possible to expand such programs on a global scale, starting with a wide prospect of G20 (CohesionPolicy 2021-2027).

The Deloitte company report is analyzing the creative economy of the six most developed countries in Europe: Germany, Great Britain, France, Italy, Spain, Turkey, as well as Japan, South Korea and Australia. An analysis suggests that in 2018, almost 20 million people were employed in the creative economy, which is about 7% of the countries employment in

average, and the growth of creative economies occurs significantly faster than other sectors, the growth rate is 4% of 2011 (Table 4).

Table 4

The growth rates of the creative economy of EU countries and GDP growth rates in 2011, 2018

Countries	Employment in a creative economy, thousands person		Employment in a creative economy, % in total employment		Annual GDP growth rate, %	
	2011	2018	2011	2018	2011	2018
United Kingdom	2,309	3,107	7,9	9,6	1.458	1.651
Germany	2,432	2,915	6,3	7,0	3.925	1.086
France	981	1,155	3,8	4,3	2.193	1.865
Spain	750	889	4,1	4,6	-0.814	2.289
Italy	518	586	2,3	2,5	0.707	0.926
Turkey	392	604	1,6	2,1	11.2	2.98

Source: WorldBank (2022d).

The third component of the model 3T is tolerance - the treatment of immigrants, racial and ethnic minorities. Universities contribute to the creation of a progressive, open and tolerant human climate, helps to attract members of the creative economy. In Europe, there are several trends in migration flows: 1) Migration flows of developing countries are increasing, while migration flows of developed EU countries are reduced; 2) A significant proportion of young migrants in the structure of migrant employment as a whole within the EU; 3) Europe arrives a greater number of labor resources, which means an increase in international migration and intensification of international migration flows; 4) The formation of the EU market, because the share of employed EU-27 migrants, which are citizens of different European countries is almost 70% (Eurostat, 2022).

It was the unity of the indicated 3T-factors, the indices of technologies, talents, tolerance caused the expansion of the cultural horizons of the region in which university centers exist. The basis of research interest in the fee of the creative economy was also an obvious growth in its number in developed countries.

Measurements of cultural factors in Europe: assessment of values

Among the major cultural invariants are the values that can be measured and compare in different countries of Europe based on world research data (Haerpfer et al., 2021), in which the context of this work explores the opinion of citizens regarding social capital, confidence and participation in organizations, economic values, ethical standards and values.

One of the important findings formulated in the theory of modernization of Haerpfer et al. (2021) using WVS data, is emphasis on the importance of cultural values for the formation and consolidation of democratic institutions and economic growth. Based on valuables in different countries Haerpfer et al. (2021) developed cultural maps of the world for the period 1999-2004, 2005-2008 and 2010-2014 (Figure 2). Maps confirm the thought of a long period of time, which is required for the transformation of value landmarks, and therefore - worldview and thinking that affects the freedom of expression and creativity as a driving force for the development of culture and economy.

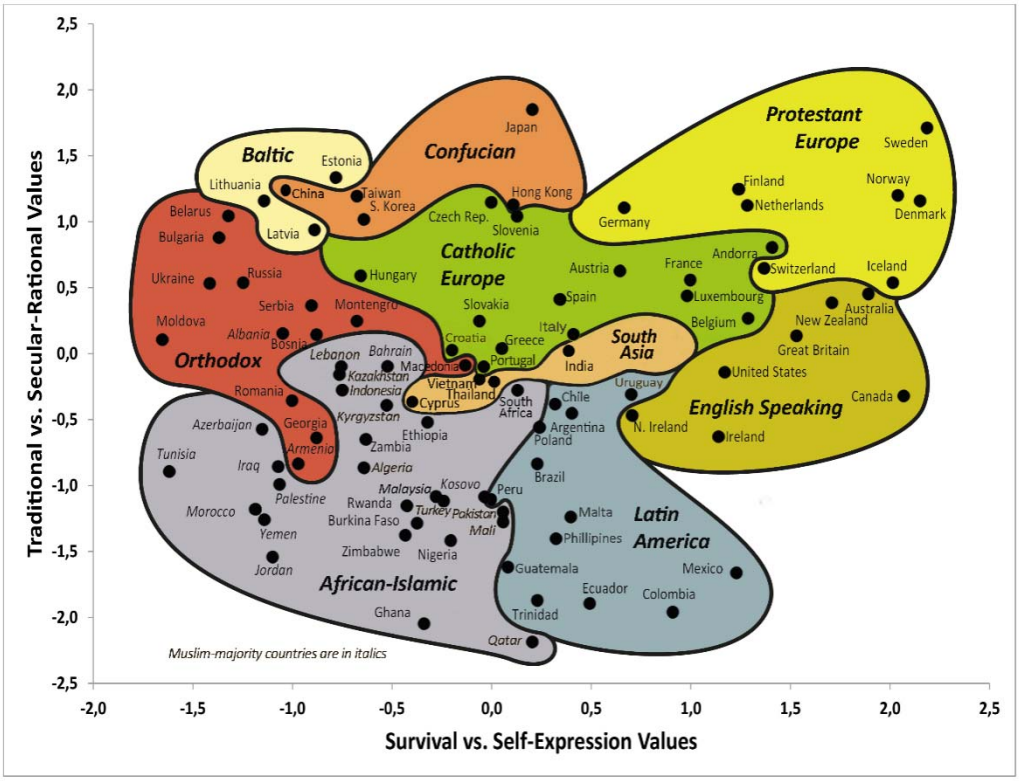

Figure 2. Cultural map of the world according to valuables of citizens of different countries, 2010-2014

Source: Haerpferetal (2021).

As shown in Figure 2, for the most developed countries of Europe, the severity of rational values is characteristic (less significance of religion, family, authority) in comparison with traditional (religion, parental and children's relationship, respect for authority, family values), as well as values of self-expression (ecology protection, tolerance growth to various social groups, minorities, growth in the significance of participation in the socio-political life of the country). The transformation of beliefs is particularly sharply traced in countries with dynamic economic growth. The most rational values and values of self-expression are expressed in the countries of Protestant Europe: Sweden, Norway, Finland, the Netherlands, Germany, Denmark, and Switzerland. These types of values are also characteristic of Catholic Europe and English-speaking countries, especially in France, Austria, Spain, Belgium, Italy, Slovenia, the Czech Republic, Great Britain and the United States.

CONCLUSION

Empirical studies of the development of the cultural economy and the characteristics of the change in cultural factors on the example of the countries of Europe makes it possible to make several conclusions. First, culture as a set of values of citizens of various European countries is slowly transformed. In the most developed countries of Europe, the values of self-expression and rational values are dominated. As a result, a cluster of countries was formed, where the creative economy evolves a rapid pace, new creative industries and cities appear thanks to the introduction of technologies. Secondly, the analysis of the model 3T regarding the development of technologies, talents, tolerance indicates such important

cultural characteristics affecting the creative economy and employment growth in creative sectors: 1) an increase in the export of high-tech EU countries, which confirms the evolution of the creative economy; 2) the cost of research and development costs in EU countries, stability of innovation; 3) in the creative economy of the most developed EU countries, where the values of expression are dominated, almost 20 million people are employed, which is about 7% of the employment of countries; 4) The growth of creative economies occurs significantly faster than other sectors, annually the growth rate is 4% since 2011.

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