УДК: 008:338.4(477)=811.111
https://doi.org/10.32342/3041-2137-2025-2-63-6

***S.L. Shults*,**
Doctor of Sciences (Economics), Professor, head of the regional economic policy department at SI "Institute of Regional Research named after M.I. Dolishniy of NAS of Ukraine", Lviv (Ukraine)
https://orcid.org/0000-0002-5603-5603

***O.A. Voitenko*,**
PhD student, leading engineer of the regional economic policy department at SI "Institute of Regional Research named after M. I. Dolishniy of NAS of Ukraine", Lviv (Ukraine)
https://orcid.org/0000-0002-0888-3974

CULTURE AS A FACTOR IN THE DEVELOPMENT OF THE PRODUCTIVE CAPACITY OF UKRAINIAN REGIONS

The topic of enhancing economic productivity is relevant to many countries. Identifying additional factors that influence productivity gives policymakers more opportunities to implement effective measures for economic development. Culture is a crucial element of economic systems, as it not only affects individuals' characteristics, behavior, and qualifications but also serves as a sector that provides jobs, creates products, and contributes to a portion of GDP and GRP.

This article aims to identify indicators from the cultural sphere that influence the productivity of Ukraine's regional economies based on 2021 data. The application of regression analysis using the least squares method to parameters characterizing the cultural sphere, as available in Ukraine's official statistical database, revealed a statistically significant impact of the proportion of those employed in the cultural sector on the overall factor productivity of the country's regions in 2021. However, other selected indicators did not show a significant influence in the constructed model.

Addressing issues related to the cultural sphere in Ukraine, such as "whitening" employment, creating conditions for the legalization of activities by a significant number of micro-enterprises, and increasing public attention to cultural products with state participation, can have a positive impact both during Ukraine's recovery after the war and even amid ongoing hostilities. These actions can strengthen the economic impact of culture. The results obtained will also contribute to a comparative analysis of economic indicators in other developing countries and Ukraine's post-war economy.

Keywords: culture, economic productivity, regional development
JEL classification*: R10, R15*

Питання підвищення продуктивності економіки є актуальним для багатьох країн світу. Виявлення додаткових чинників, що впливають на продуктивність, надасть політикам та іншим впливовим суб'єктам більше можливостей для впровадження відповідних необхідних заходів для економічного розвитку. Визначено, що культура є важливим елементом економічних систем, який не тільки впливає на індивідуальні характеристики, поведінку та кваліфікацію людей, але також є окремим сектором економіки, який забезпечує робочі місця, створює продукти та формує значну частку ВВП і ВРП.

Ця стаття має на меті визначити показники сфери культури, які впливають на продуктивність економік регіонів України, на основі даних довоєнного 2021 р. Застосування регресійного аналізу до параметрів, що характеризують сферу культури, наявних в офіційній статистичній базі даних України, допомогло виявити статистично значущий вплив частки зайнятих у сфері

культури на загальну факторну продуктивність регіонів країни у 2021 р. Проте інші обрані показники не показали свого впливу у побудованій моделі.

Вирішення викликів, пов'язаних зі сферою культури в Україні, зокрема, «відбілення» зайнятості та створення умов для легалізації діяльності значної кількості малих і мікропідприємств, а також підвищення уваги населення до культурних товарів і послуг, що надаються за участі держави і місцевого самоврядування, може позитивно вплинути під час майбутнього відновлення України після закінчення війни та безпосередньо під час воєнних дій. Це також може посилити прямий економічний вплив культури. Отримані в цьому дослідженні результати допоможуть провести порівняльний аналіз економічних показників інших країн, що розвиваються, та України в післявоєнний період.

Ключові слова: культура, продуктивність економіки, розвиток регіонів
JEL classification: ***R10, R15***

Statement of the problem. Economies at different levels of development face significant challenges in boosting productivity. The increasing importance of the tertiary sector and the growing focus on the environmental impact of industrial activities make it more complex to understand productivity and to implement further measures to improve it.

Modern empirical research suggests that factors such as institutional innovations, the ability to adapt to new technologies, knowledge diffusion, the state of the entrepreneurial environment, domestic demand, human and creative capital, and demographic trends play a crucial role in driving productivity growth [1].

A significant factor influencing productivity, closely tied to human capital, is culture. Culture is essential for shaping society's material, spiritual, and intellectual assets, while also being a vital sector in the modern global economy with the potential to make substantial contributions to GDP and GRP. However, the complexity of studying culture's impact lies in the challenge of quantifying its role in the production process: "For contemporary researchers, the question is not whether culture plays a role in economic development and prosperity but rather to understand how it influences, what it influences, and what place it occupies among economic development factors" [2, p.147].

Statement of the task. In the conditions of war in Ukraine, identifying factors that can contribute to increased productivity, particularly in regions serving as rear areas supporting the defense sector, becomes a critical task. This research aims to verify the cultural sphere indicators that directly impact the economic growth of the country's regions by enhancing their productive capacity. The cultural sphere, in particular, can play a key role in successfully integrating Ukraine into the European Union (a process that is concurrent with military actions) and can serve as a factor in strengthening social cohesion and restoring economic activity in front-line and de-occupied territories. Understanding the impact of the cultural sphere on productivity as of 2021 is also essential for developing plans to recover the national economy.

Studying the influence of cultural factors on productivity in the Ukrainian context will also naturally complement global research on the importance of culture for the economies of developing countries. Considering the cultural development context in Ukraine during the period of independence leading up to the full-scale war – marked by sporadic attention from authorities, a lack of awareness of culture as an economic sector among officials and the population, underfunding, a significant share of state ownership in the sector, issues with shadow employment in the cultural and creative industries, and decentralization processes that began only two years before the war and remained incomplete – the data obtained from this research could serve as a foundation for researchers in other countries with similar cultural development challenges. This data can be used to assess and raise awareness of the challenges involved in redefining the cultural sector's role in economic development.

Analysis of recent research and publications. The cultural characteristics of the population in a specific territory significantly impact economic indicators. A. Smith and M. Weber discussed the importance of beliefs, moral standards, and other cultural manifestations. Over the past few decades, researchers have greatly expanded and deepened our understanding of the relationship between cultural expressions and economic development at both the individual and macro levels.

For instance, L. Guiso, P. Sapienza, and L. Zingales explored the strength of the influence of cultural categories such as ethnic origin and religious preferences on economic indicators [3]. Empirical studies by C. R. Williamson and R. L. Mathers have demonstrated that both a high level of economic freedom and culture independently have a positive effect on economic growth and productivity in economically developed countries [4]. D. Bakas et al. examined the established connection between cultural characteristics and labor productivity [5]. Research on the impact of culture on economic indicators at the micro level, conducted by A. S. Santos and colleagues, confirmed that culture is a significant factor in the efficiency of individual work [6]. In her analytical work, J. Kapás investigated and systematized concepts in this area, describing approaches from Barro and McCleary's works to Putnam's contributions [7].

Modern researchers who examine culture's impact on economic development consider it a resource, a necessity, and an environment. From the perspective of developing the productive capacity of regional economies, it is valuable to focus on the concepts of cultural capital and cultural landscapes, which are elements of the cultural environment.

At the end of the 20th century, D. Throsby introduced the economic category of cultural capital, which he views as an asset that embodies, preserves, or creates cultural value, in addition to any economic value it may hold [8]. Before Throsby's work, cultural capital was primarily examined from a sociological standpoint, in line with Pierre Bourdieu's concept. Researchers often regard cultural capital as a component of social and human capital, although there is still no clear consensus on this classification. Notably, interest in cultural capital has significantly increased since UNESCO and other organizations recognized culture as the fourth pillar of sustainable development.

According to the Oxford Dictionary, cultural capital is a form of capital that utilizes symbols, ideas, tastes, and preferences in social activities [9]. Researchers argue that creativity is produced by cultural capital, making it a distinct factor in development that complements human capital [10].

Cultural capital can manifest in both material and non-material forms, with the entirety of such assets defined as having both economic and cultural value simultaneously.

To measure the impact of cultural assets on regional economic growth, scholars highlight the advantages of countries or regions with significant cultural heritage resources over those with fewer cultural assets [11] (Kostakis et al., 2020). For example, when studying the impact of cultural and social capital separately on the formation of material wealth in New Caledonia, researchers led by N. Zugravu argued that non-material cultural capital (such as traditions, beliefs, prejudices, etc.) forms the foundation of social relations and defines the way of life within a community by structuring social relationships [12]. The role of cultural capital in China's economic development over the previous decade was emphasized in research by H. Xing and J. Chi [13].

Considering that people shape the cultural environment, which in turn impacts individuals, it is also important to discuss the concept of cultural landscapes. This category not only integrates natural and anthropogenic factors but also directly and indirectly influences a territory's economic development. Despite the concept's somewhat abstract nature, both the physical and psychological dimensions of landscapes fulfill critical social and cultural needs, while simultaneously playing a vital ecological and economic role in the functioning of

territories. As part of the UN's Agenda 2030, it is emphasized that the regeneration of cultural landscapes is essential for achieving many of the Sustainable Development Goals. At the same time, Ukrainian researchers point out, "The interdisciplinary approach to the content, essence, and mechanisms of the development and functioning of cultural landscapes is characterised by ambivalence and ambiguity in defining both the concept itself and its functional components, both in global and local contexts." [14, p. 183].

Large-scale landscape objects of cultural heritage can include a wide range of forms and types, such as archaeological sites, historical landmarks, monumental art, garden and park art, architecture, urban planning, as well as scientific and technical constructions (structures) and complexes (ensembles) [15].

Research on cultural landscapes has been conducted by international scholars from various perspectives. Chinese researchers, in particular, emphasize the importance of studying cultural landscapes as examples of economic landscapes. These are territories where changes in nature occur due to the interaction of both external and internal factors, as well as territorial actors, aimed at improving human existence. In this way, cultural landscapes shape the culture of the inhabitants. The evolution of cultural landscapes is not only a cultural phenomenon but also a socio-economic process. It is deeply embedded in economic, social, and cultural contexts, influenced by the behavior and interactions of actors at the local, regional, national, and international levels [16].

Landscapes are a familiar part of everyday life for every individual and play a crucial role in fostering a sense of belonging to a particular place and community, which can be considered a factor in psychological well-being. Visitors to a territory experience its unique identity and local authenticity, evaluating the experience in a specific way. Both residents and visitors perceive the landscape as a factor influencing the quality of life in a particular area. Therefore, an individual's awareness of their connection to a specific territory and understanding of its standard of living significantly impact labor productivity and motivation for improvement.

Considering culture through the lens of economic science, it is important to highlight the concept of the «cultural economy,» which views cultural activities as part of the cultural and creative industries (CCI). According to UNESCO data from 2022, the cultural sector contributed 3.1% to global GDP, while the entire CCI sector accounted for 6.2% of global employment [17]. Previous empirical evidence demonstrates a significant correlation between employment in the cultural and creative industries and GDP per capita. For EU regions, this correlation was 0.64 in 2008 – a time when CCI had not yet been widely recognised within the organisation as a key and promising direction for development.

The importance of the cultural sector for the economy is highlighted by the fact that one of the individual indicators considered in calculating the competitiveness index, namely «Expenditure on Research and Development in Culture» (NRDC), also includes cultural expenses. This indicator as a percentage of GDP encompasses «current and capital expenditures (both public and private), development and work systematically carried out to increase knowledge, including knowledge of humanity, culture, and society and their use in new areas» [18].

Researchers acknowledge the threefold role of culture in the innovation process. Creative industries, by definition, are a primary source of innovative ideas and the emergence of new goods and services. They provide services that can serve as resources for the innovation activities of other enterprises, whether within or outside the creative sector. Finally, creative industries themselves make extensive use of new technologies and often need to adapt to shifts in market demand and technological change, thereby generating innovation impulses for technology producers [19].

The above considerations regarding the role of cultural components in the socio-economic development of countries and regions highlight their significant impact on enhancing productive capacity.

The article is devoted to identifying previously unresolved parts of the general problem. Despite the recognised importance of the cultural sector and industries, precise assessments of the economic scale of CCIs across various dimensions are still lacking, making it difficult to evaluate their contribution to national economies. This study aims to address this gap by examining the role of the cultural sphere in shaping the productive capacity of regional economies.

Summary of the main research material. To assess the impact of cultural factors on the productivity of regional economies, we will use indicators such as the share of cultural sector enterprises in the total number of enterprises in a region, the proportion of those employed in the cultural sector within the region's employment structure, the number of tangible and intangible heritage objects, and the share of household expenditure on cultural services. The primary data source is information provided by the State Statistics Service of Ukraine. Certain limitations influence the selection and distribution of indicators within the statistical base.

It is assumed that these indicators collectively influence the productivity of the economy; therefore, the hypothesis can be tested using a model (1):

$$y_i = \alpha + \beta x_i + \varepsilon_i, \quad (1)$$

where ε_i is the model error, and α is the proper but unobservable regression parameter. The parameter β represents the variation in the dependent variable when the independent variable has unit variation.

The least squares method was chosen for modelling. The model is constructed for 24 regions of Ukraine for the year 2021, which is considered a baseline for understanding the country's economic situation on the eve of unprovoked full-scale armed aggression by the Russian Federation. The results obtained will be helpful in assessing the productive capacity of Ukraine's regions in terms of military actions, losses in the cultural sphere, and the possibility of utilising their potential shortly.

As of 2021, Ukraine's National List of Intangible Cultural Heritage Elements included 69 elements distributed by regions of origin [20]. Also, the State Register of Immovable Monuments of Ukraine consists of 1,173 monuments of national significance and 18,405 local ones [21]. The distribution of cultural heritage objects across regions is presented on the map (Figure 1).

As shown in Fig. 1, the highest concentration of cultural heritage sites is found in Sumy Oblast, with 23.87 sites per 10,000 people. In contrast, Donetsk Oblast has the lowest figure – just 0.24 sites per 10,000 people. The count includes sites located in temporarily occupied territories since 2014, while the population figures refer only to residents in government-controlled areas as of 2021. This discrepancy may be influenced by the historical development characteristics of the eastern region, where significant permanent settlements began to emerge only a few centuries ago – unlike in other parts of Ukraine. Additionally, the high level of urbanisation in these territories also contributes to the disparity. It is worth noting that the national average concentration is 4.23 sites per 10,000 people.

The proportion of household expenditures on activities related to the cultural sector, as shown in Fig. 2, reflects the level of the population's cultural needs. According to the State Statistics Service of Ukraine, the 2021 survey included 7.6 thousand households, representing the entire country and various population categories.

As we can see, in Sumy Oblast, the share of household expenditures reaches 3.20%, significantly higher than the national average of 1.61%. Overall, there are no significant disparities between regions in this regard. The low level of household expenditures on cultural sector products is generally attributed to citizens' low income levels. In such conditions, spending on non-productive and non-essential needs, including cultural products, is often seen as unnecessary for the average citizen. However, global experience shows that an increase in citizens' spending on cultural services is linked to economic growth, as it positively impacts social

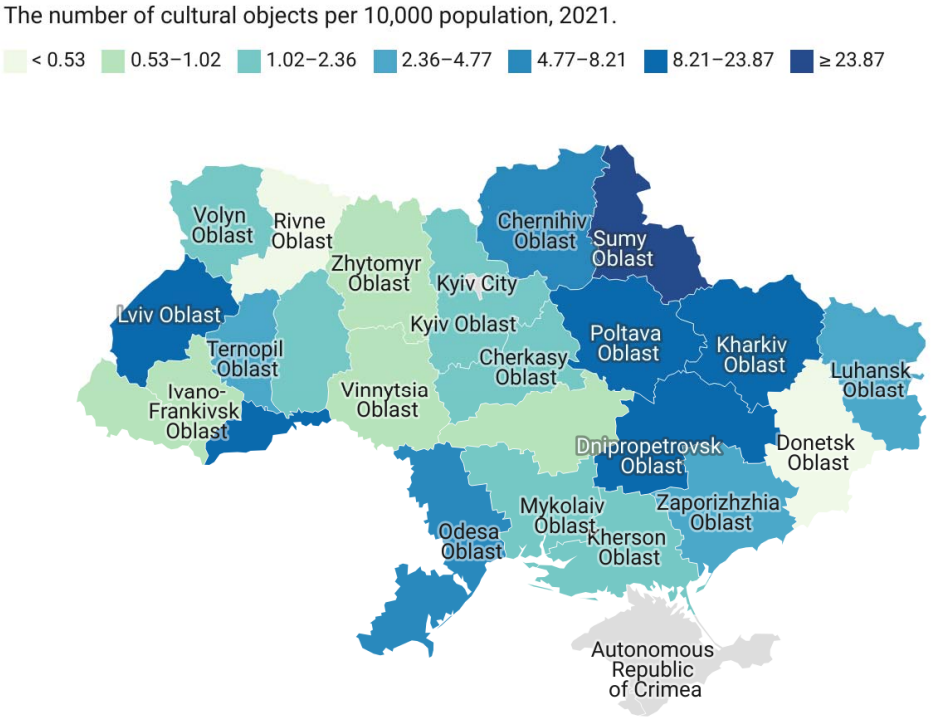

Fig. 1. Map depicting the distribution of cultural heritage sites across regions of Ukraine
Source: Authors' map based on [20, 21]

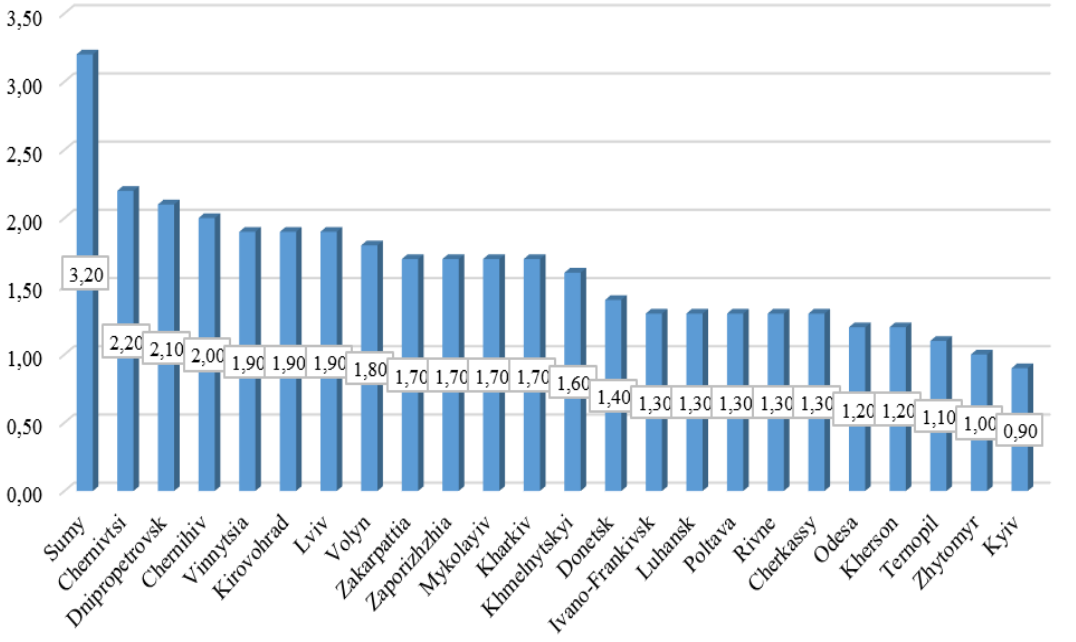

Fig. 2. Diagram of the distribution of regions by the share of household expenditures on culture in 2021 (%), excluding temporarily occupied territories.
Source: Authors' own plot

(human) capital, economic structure, and quality of life.

The level of economic involvement in the cultural sector can be characterised by two indicators: the share of cultural sector enterprises in the total number of enterprises in the region and the share of employment in the cultural sector within the region's overall employment structure. The distribution of regions based on these two indicators (Figure 3) reveals significant disparities between regions.

The regions with the highest share of cultural sector enterprises in their economic structure are Lviv (0.67%), Kharkiv (0.64%), and Odesa (0.6%). These three regions also lead in terms of the share of employment in the cultural sector: Kharkiv (3.63%), Odesa (2.99%), and Lviv (2.88%). Three other distinct groups of regions emerge: 1) regions with a high share of employment but an average share of enterprises—Kyiv, Dnipropetrovsk, and Zaporizhzhia; 2) the majority of regions, which exhibit average levels for both indicators; and 3) regions such as Volyn, Zakarpattia, Vinnytsia, and Chernivtsi, which have average levels for the share of cultural enterprises but low levels for the share of employment.

The lowest relative share of cultural enterprises is observed in Donetsk (0.22%) and Luhansk (0.23%) regions, which are characterized by the dominance of extractive and heavy industries in their economic structure. The Luhansk region also ranks lowest in terms of the share of employment in the cultural sector, with a figure of 0.6%.

Low indicators of economic activity in the cultural sector in regions such as Luhansk and Donetsk may pose a threat to Ukraine's national security. This is because the level of development in the cultural sector influences socially essential factors such as a sense of belonging, patriotism, societal cohesion, and the feeling of being a citizen of one's country. In the context of active propaganda by the Russian Federation promoting its ideals and principles, cultural and educational work with the population in regions directly adjacent to the conflict zone

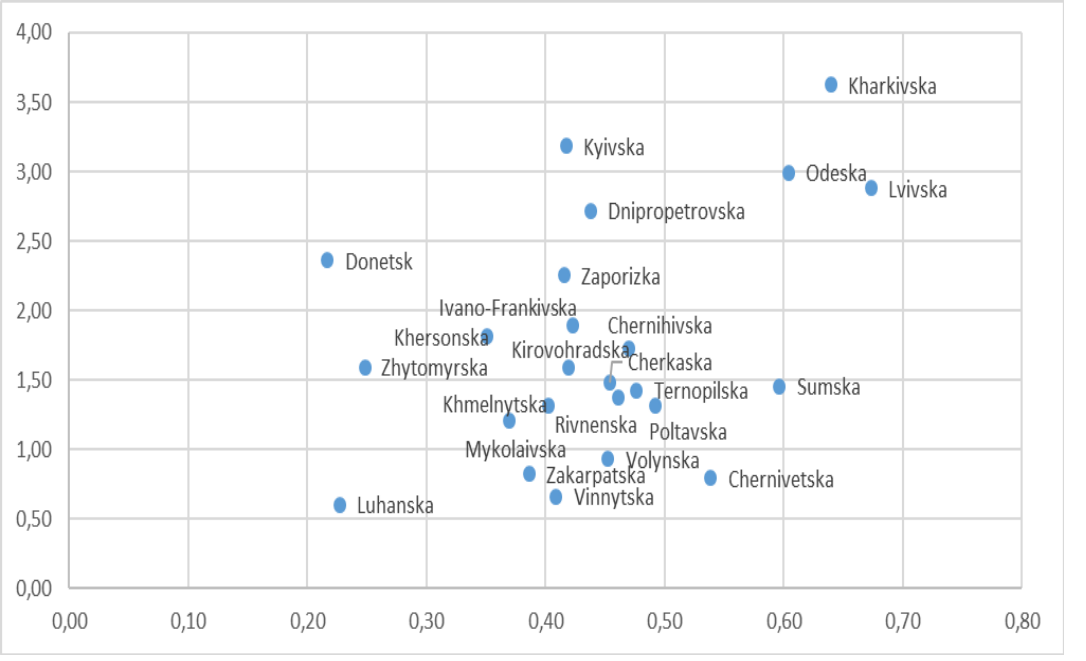

Figure 3. Distribution of regions based on the share of employment in the cultural sector and the share of cultural sector enterprises, 2021 (excluding temporarily occupied territories)
Source: Authors' own plot

since 2014 should be actively carried out by local and regional authorities. During post-war recovery, relevant authorities should focus on increasing overall participation in cultural practices and directing efforts toward developing the cultural potential of these territories. This not only enhances security but also strengthens the human capital of these regions.

The model's dependent variable is the TFP indicator, calculated according to the OECD methodology [22], for the regions of Ukraine in 2021 (Table 1).

The unconditional leader in this parameter is the Dnipropetrovsk region, with a value of 39,432.91, while the average across regions is 8,775.59. The lowest economic productivity was observed in the Chernivtsi region, at 1,962.95. The significant gap between the leader and the lowest performer highlights substantial territorial disparities in productivity.

Before the data were used for modelling, the TFP and the distribution of cultural heritage sites per 10,000 population for each region were log-transformed.

The following tables use the subsequent notations:

- ln_tfp21: the logarithm of TFP for 2021;
- ln_hc: the logarithm of the distribution of cultural heritage sites per 10,000 population;
- entrpshare: the share of cultural sector enterprises in the total number of enterprises in the region (as a coefficient);
- emp_share: the share of employment in the cultural sector in the overall employment structure of the region (as a coefficient);
- expshare: the share of household expenditures on cultural products in the

Table 1

The distribution of Ukrainian regions based on the TFP indicator for 2021

Oblasts (regions)	TFP in 2021
Dnipropetrovska	39432,91
Kyivska	19146,17
Donetsk	19136,67
Lvivska	14868,32
Poltavska	14369,51
Kharkivska	12942,08
Odeska	12476,57
Zaporizhska	9900,958
Vinnytska	8529,588
Khmelnytska	5690,69
Cherkaska	5325,877
Ivano-Frankivska	5090,132
Zhytomyrska	4961,315
Chernihivska	4632,091
Mykolaivska	4404,963
Ternopilska	4379,883
Volynska	4290,426
Sumska	3917,634
Kirovohradska	3532,58
Rivnenska	3322,922
Khersonska	3094,507
Zakarpatska	3084,909
Luhanska	2120,269
Chernivetska	1962,951

Source: Authors calculations

overall household expenditure structure of the region (as a coefficient).

Table 2 shows the summary statistics of the variables, including the mean, standard deviation, minimum, and maximum values. The indicator of the distribution of cultural heritage sites has a relatively large standard deviation, indicating significant variability in these data. In contrast, the rest of the indicators have a distribution close to the mean value. At the same time, the correlation matrix analysis (table 3) shows that the TFP does not have a strong correlation with other indicators (only with employment share, which is 0.65). It is also worth noting that the selected indicators do not exhibit a high level of correlation with each other (above 0.5).

The regression analysis conducted using the least squares method (Table 4) indicates that the model, with the dependent variable being the logarithm of TFP and the selected independent variables, has a coefficient of determination (R-squared) of 0.48. This means the model explains 48% of the variability in the dependent variable. The F-statistic for the model is 4.42, with 4 and 19 degrees of freedom, suggesting that the model makes a statistically significant contribution to explaining the variation in the dependent variable. Additionally, the p-value for the F-statistic is 0.0108, which is less than 0.05, indicating the overall statistical significance of the model.

The obtained regression analysis data were checked for multicollinearity using the VIF test and for heteroskedasticity using the Breusch-Pagan/Cook-Weisberg test (Table 5). The model shows no significant issues with multicollinearity, and the independent variables can be reliably used to estimate the parameters. Additionally, there is no statistically significant evidence of heteroskedasticity in the model, as the p-value (Prob > chi2) is greater than 0.05).

Based on the obtained data, statistically significant variables are the employment share in cultural sector enterprises (elasticity coefficient 66.56576, standard error 16.44333, p-value 0.001) and the constant term (coefficient 7.339975, standard error 0.6327733, p-value < 0.001). The variables ln_hc, expshare, and entrpshare do not have a statistically significant impact on ln_tfp21.

Modelling revealed a statistically significant impact of only one indicator – the share of employment in the cultural sector – while other studied variables did not influence the constructed model. In examining the reasons for these results, it is necessary to explain both the influence of employment and the lack of influence of other indicators.

Table 2

Summary statistics

Indicator	Mean	S.D.	Min.	Max.
ln_tfp21	8.764167	0.7719197	7.58	10.58
ln_hc	0.445	2.155367	-8.06	3.17
entrpshare	0.0020833	0.0041485	0	0.01
emp_share	0.0175	0.0089685	0.01	0.04
expshare	0.016125	0.0049283	0.009	0.032

Source: Authors' calculations

Table 3

Correlation matrix

	ln_tfp21	ln_hc	entrpshare	emp_share	expshare
ln_tfp21	1.0000				
ln_hc	-0.0734	1.0000			
entrpshare	0.0732	0.4481	1.0000		
emp_share	0.6516	0.1323	0.3798	1.0000	
expshare	-0.0971	0.3596	0.4546	-0.1205	1.0000

Source: Authors' calculations

Table 4

Results of the modeling using the least squares method

ln_tfp21	Coef.	Std. Err.	t	P>t
ln_hc	-0.0446685	0.0674741	-0.66	0.516
entrpshare	-42.9817	41.40412	-1.04	0.312
emp_share	66.56576	16.44333	4.05	0.001
expshare	22.86598	31.65808	0.72	0.479
_cons	7.339975	0.6327733	11.60	0.000

Source: Authors' calculations

Table 5

Results of the VIF test and Breusch-Pagan/Cook-Weisberg test

Variable	VIF	1/VIF		chi2(1) =	0.03
entrpshare	1.82	0.550608		**Prob > chi2** =	0.8589
expshare	1.50	0.667348			
emp_share	1.34	0.746948			
ln_hc	1.30	0.768063			
Mean VIF	1.49				

Source: Authors' calculations

So, the share of employment in cultural enterprises in the overall employment structure showed a moderate correlation and statistical significance in the model. It is assumed that this is related to the impact of this indicator on labour productivity, which is part of the dependent variable – TFP. Employment in the cultural sector is often characterised by highly qualified workers who are creators. In addition, the cultural sector is an industry that creates products with high added value and is part of the creative economy. In future research, it is necessary to consider the limitations imposed on economic indicators by the legal situation.

The absence of a measured impact of the other indicators can also be explained by the limitations of the statistical database on the number of cultural enterprises and restrictions associated with household surveys on their expenditures from the State Statistics Service of Ukraine.

Another significant limitation of this study is the institutional environment in which cultural activities occur in Ukraine and the population's attitude towards this sphere. Over the decades, cultural policy in the country has been inconsistent and underfunded, and there have been no steps towards developing economic self-sufficiency in the cultural sector for a long time. Understanding culture as part of the cultural and creative economy was also absent for an extended period [23]. Partial changes began to take place only in 2020; however, their consequences for 2021 were minimal and could not be reflected in the data used in the study. Public attention to the cultural sector is insufficient, particularly regarding the attendance of state and municipal cultural institutions (such as museums, theatres, and libraries). This aspect is crucial in light of previous research data.

Comparing the results of this study with data from other countries can be a valuable method for verifying the described assumptions and limitations. Comparative analyses can identify similarities or differences in the impact of selected parameters on the economic productivity indicator in various regions. However, it is crucial to consider the diversity of economic, socio-cultural, and other factors that may influence the results.

Conclusions

Theoretical and empirical research by foreign scholars indicates the influence of cultural factors on the economic development of territories. However, challenges in identifying quantitative characteristics of

the industry hinder the ability to conduct a relevant assessment of the real impact of cultural factors on economic productivity. The research has shown that, with the available data and the chosen approach to its analysis, a statistically significant impact was observed only in the parameter "share of those employed in the cultural sector within the region's overall employment structure." Further verification of the impact of the selected factors is needed.

It is essential to emphasise that in war conditions, the cultural sphere remains a vital socio-economic resource for Ukraine, and support for this sector, even in these challenging circumstances, is crucial. In this context, numerous international organisations that put forth various aid initiatives, including programs to support Ukrainian artists, preserve cultural heritage, and implement cultural and artistic projects, will have a positive impact.

The new reality will require new priorities and an orientation towards culture as a driver of economic growth in a state of war and the post-war perspective.

Bibliography

1. Шульц С.Л., Луцків О.М. Просторові та секторальні детермінанти продуктивної спроможності регіонів: теоретична генеза та методологічні засади дослідження // Регіональна економіка. 2022. № 4(106). С. 5–20. DOI: https://doi.org/10.36818/1562-0905-2022-4-1.

2. Харечко В. М. Культура, цінності та економічний розвиток: аналіз деяких концепцій // Наукові записки. 2018. № 1 (56). С. 144–153. – Режим доступу: http://nbuv.gov.ua/UJRN/Nz_2018_1_17.

3. Guiso L., Sapienza P., Zingales L. Does Culture Affect Economic Outcomes? // Journal of Economic Perspectives. 2006. № 20(2). С. 23–48. DOI: https://doi.org/10.1257/jep.20.2.23.

4. Mathers R. L., Williamson C. R. Cultural Context: Explaining the Productivity of Capitalism // Kyklos. 2011. № 64(2). С. 231–252. DOI: https://doi.org/10.1111/j.1467-6435.2011.00504.x.

5. Bakas, D., Kostis, P., Petrakis, P. Culture and labour productivity: An empirical investigation // Economic Modelling. 2019. № 85. DOI: https://doi.org/10.1016/j.econmod.2019.05.020.

6. Santos A. S., Reis Neto M. T., Verwaal E. Does cultural capital matter for individual job performance? A large-scale survey of the impact of cultural, social and psychological capital on individual performance in Brazil // International Journal of Productivity and Performance Management. 2018. № 67(8). С. 1352–1370. DOI: https://doi.org/10.1108/ijppm-05-2017-0110.

7. Kapás J. How cultural values affect economic growth: a critical assessment of the literature. // Economic Thought and Practice. 2017. pp. 26, 265–285.

8. Throsby D. Cultural Capital // Journal of Cultural Economics. 1999. № 23(1/2). С. 3–12. DOI: https://doi.org/10.1023/a:1007543313370.

9. Oxford Reference. cultural capital [Електронний ресурс]. – Режим доступу: https://www.oxfordreference.com.

10. Давимука С., Федулова Л. Дискурс щодо сучасної ролі культури та формування культурних індустрій // Соціально-економічні проблеми сучасного періоду України. 2017. № 5 (127). С. 3–9. – Режим доступу: https://ird.gov.ua/irdp/p20170702.pdf.

11. Kostakis I., Lolos S., Doulgeraki C. Cultural Heritage led Growth: Regional evidence from Greece (1998-2016) [Електронний ресурс]. – 2020. – Режим доступу: https://mpra.ub.uni-muenchen.de/98443. – Дата звернення: 27.12.2023.

12. Zugravu-Soilita N., Kafrouni R., Bouard S., Apithy L. Do cultural capital and social capital matter for economic performance? An empirical investigation of tribal agriculture

in New Caledonia // Ecological Economics. 2021. № 182. С. 106933. DOI: https://doi.org/10.1016/j.ecolecon.2020.106933.

13. Xing H., Chi J. Cultural Capital and China's Economic Growth // Financial Engineering and Risk Management. 2021. № 4(3). С. 7–17. DOI: https://doi.org/10.23977/ferm.2021.040302.

14. Копієвська О. Локальні культурні ландшафти України в умовах гібридної реальності // Тоталітаризм як система знищення національної пам'яті: збірник наукових праць за матеріалами Всеукраїнської науково-практичної конференції з міжнародною участю, 11–12 червня 2020 року, Львів. 2020. С. 182–184. – Режим доступу: https://oldena.lpnu.ua/handle/ntb/53265.

15. Вечерський В. В. Ландшафт культурний [Електронний ресурс] // Велика українська енциклопедія. – Режим доступу: https://vue.gov.ua/Ландшафт_культурний.

16. Gong Z., Zhang Z., Zhou J., Zhou J., Wang W. The Evolutionary Process and Mechanism of Cultural Landscapes: An Integrated Perspective of Landscape Ecology and Evolutionary Economic Geography // Land. 2022. № 11(11). С. 2062. DOI: https://doi.org/10.3390/land11112062.

17. Creative Economy Outlook 2022 [Електронний ресурс] // United Nations Publications. – 2022. – Режим доступу: https://unctad.org/publication/creative-economy-outlook-2022#:~:text=The%20global%20exports%20of%20creative,merchandise%20and%20services%20exports%2C%20respectively.

18. Publications. Global Competitiveness Report 2018 [Електронний ресурс] // World Economic Forum. – 2023. – Режим доступу: http://reports.weforum.org/global-competitiveness-report-2018/appendix-cthe-global-competitiveness-index-4-0-methodology-and-technical-notes/. – Дата звернення: 28.12.2023.

19. Müller K., Rammer C., Trüby J. The Role of Creative Industries in Industrial Innovation // Journal of Cultural Economics. 2008. № 23(1/2). С. 3–12. DOI: https://doi.org/10.1023/a:1007543313370.

20. Національний перелік елементів нематеріальної культурної спадщини України [Електронний ресурс] // Український центр культурних досліджень. – Режим доступу: https://uccs.org.ua/natsionalnyj-reiestr-obiektiv.

21. Державний реєстр нерухомих пам'яток України [Електронний ресурс] // Міністерство культури та інформаційної політики. – Режим доступу: https://mcip.gov.ua/kulturna-spadshchyna/derzhavnyy-reiestr-nerukhomykh-pam-iatok-ukrainy.

22. Measuring Productivity – OECD Manual [Електронний ресурс] // OECD. – 2001. – Режим доступу: https://doi.org/10.1787/9789264194519-en.

23. Кабачій Р. Від кон'юнктури до культури. Як ми відповімо на знищення нових культурних інституцій? [Електронний ресурс] // Detector Media. – 2021. – 27 жовтня. – Режим доступу: https://cs.detector.media/blogs/texts/184615/2021-10-27-vid-konyunktury-do-kultury-yak-my-vidpovimo-na-nyshchennya-novykh-kulturnykh-instytutsiy/.

References

1. Bakas, D., Kostis, P., & Petrakis, P. (2019). Culture and labour productivity: An empirical investigation. *Economic Modelling*, Issue *85*. https://doi.org/10.1016/j.econmod.2019.05.020

2. Creative Economy Outlook 2022. (2022). *United Nations Publications*. URL: https://unctad.org/publication/creative-economy-outlook-2022#:~:text=The%20global%20exports%20of%20creative,merchandise%20and%20services%20exports%2C%20respectively. (Accessed 29 December 2023)

3. Davymuka, S., & Fedulova, L. (2017). Kreatyvnyj sektor ekonomiky: dosvid ta napriamy rozbudovy: monohrafiia [Creative economy sector: experience and directions of

development]. Lviv: Dolishniy Institute of Regional Research of NAS of Ukraine. p. 528. URL: https://ird.gov.ua/irdp/p20170702.pdf (in Ukrainian).

4. Gong, Z., Zhang, Z., Zhou, J., Zhou, J., & Wang, W. (2022). The Evolutionary Process and Mechanism of Cultural Landscapes: An Integrated Perspective of Landscape Ecology and Evolutionary Economic Geography. *Land*, Issue 11. https://doi.org/10.3390/land11112062

5. Guiso, L., Sapienza, P., & Zingales, L. (2006). Does Culture Affect Economic Outcomes? *Journal of Economic Perspectives*, Issue *20*(2), 23–48. https://doi.org/10.1257/jep.20.2.23

6. Immovable cultural heritage. Retrieved from Ministry of Culture and Information Policy of Ukraine website: https://mcip.gov.ua/kulturna-spadshchyna/derzhavnyy-reiestr-nerukhomykh-pam-iatok-ukrainy/ (in Ukrainian).

7. Kabachiy, R. (2021). Vid kon'iunktury do kul'tury. Yak my vidpovimo na nyschennia novykh kul'turnykh instytutsij. {From conjuncture to culture. How will we respond to the destruction of new cultural institutions?] *Detector Media*. URL: https://cs.detector.media/blogs/texts/184615/2021-10-27-vid-konyunktury-do-kultury-yak-my-vidpovimo-na-nyshchennya-novykh-kulturnykh-instytutsiy/ (Accessed 29 December 2023) (in Ukrainian).

8. Kapás, J. (2017). How cultural values affect economic growth: a critical assessment of the literature. *Economic Thought and Practice*, pp. 265–285.

9. Kharechko, V. (2018). Kul′tura, tsinnosti ta ekonomichnyy rozvytok: analiz deyakykh kontseptsiy. [Culture, values and economic development: analisys of some concepts]. *Naukovi zapysky [Ukrains'koi akademii drukarstva]*. [Scientific notes [of the Ukrainian Academy of Printing], Issue (1), pp. 144–153. URL: http://nbuv.gov.ua/UJRN/Nz_2018_1_17 (in Ukrainian).

10. Kopievska, O. (2020). Lokalni kulturni landshafty Ukrainy v umovakh hibrydnoi realnosti. [Local cultural landscapes of Ukraine in the conditions of hybrid reality]. *Totalitaryzm Yak Systema Znyshchennia Natsionalnoi Pamiati : Zbirnyk Naukovykh Prats Za Materialamy Vseukrainskoi Naukovo-Praktychnoi Konferentsii Z Mizhnarodnoiu Uchastiu, 11–12 Chervnia 2020 Roku, Lviv.* [Totalitarianism as a system of destruction of national memory: a collection of scientific works based on the materials of the All-Ukrainian scientific and practical conference with international participation, June 11–12, 2020, Lviv.], pp. 182–184. URL: https://oldena.lpnu.ua/handle/ntb/53265 (in Ukrainian).

11. Kostakis, I., Lolos, S., & Doulgeraki, C. (2020, January 1). Cultural Heritage led Growth: Regional evidence from Greece (1998-2016). URL: https://mpra.ub.uni-muenchen.de/98443/ (Accessed 27 December 2023).

12. Mathers, R. L., & Williamson, C. R. (2011). Cultural Context: Explaining the Productivity of Capitalism. *Kyklos*, Issue *64*(2), 231–252. https://doi.org/10.1111/j.1467-6435.2011.00504.x

13. *Measuring Productivity - OECD Manual*. (2001). OECD. https://doi.org/10.1787/9789264194519-en

14. Müller, K., Rammer, C., & Johannes Trüby. (2008). The Role of Creative Industries in Industrial Innovation. *Journal of Cultural Economics.* Issue № 23(1/2). pp. 3–12. DOI: https://doi.org/10.1023/a:1007543313370

15. National list of elements of the intangible cultural heritage of Ukraine. Retrieved from Ukrainian Center for Cultural Studies website: https://uccs.org.ua/natsionalnyj-reiestr-obiektiv/ (in Ukrainian).

16. Oxford Reference. (n.d.). cultural capital. In *Dictionary of Sociology*. URL: https://www.oxfordreference.com. (Accessed 27 December 2023).

17. Publications. (2023). *World Economic Forum* URL: http://reports.weforum.org/global-competitiveness-report-2018/appendix-cthe-global-competitiveness-index-4-0-methodology-and-technical-notes/ (Accessed 28 December 2023)

18. Santos, A. S., Reis Neto, M. T., & Verwaal, E. (2018). Does cultural capital matter for individual job performance? A large-scale survey of the impact of cultural, social and psychological capital on individual performance in Brazil. *International Journal of Productivity and Performance Management*, Issue 67(8), 1352–1370. https://doi.org/10.1108/ijppm-05-2017-0110

19. Shults, S., & Lutskiv, O. M. (2022). Prostorovi ta sektoral'ni determinanty produktyvnoi spromozhnosti rehioniv: teoretychna heneza ta metodolohichni zasady doslidzhennia. [Spatial and sectoral determinants of regional productive capacity: theoretical genesis and methodological principles of the study.] *Regional Economy*, Issue 4 (106), pp. 5–20. https://doi.org/10.36818/1562-0905-2022-4-1 (in Ukrainian).

20. Throsby, D. (1999). Cultural Capital. *Journal of Cultural Economics*, Issue *23* (1/2), 3–12. https://doi.org/10.1023/a:1007543313370

21. Vecherskyi, V. (n.d.). Landscape cultural. URL: https://vue.gov.ua/ (Accessed 27 December 2023) (in Ukrainian).

22. Xing, H., & Chi, J. (2021). Cultural Capital and China's Economic Growth. *Financial Engineering and Risk Management*, Issue *4*(3), 7–17. https://doi.org/10.23977/ferm.2021.040302

23. Zugravu-Soilita, N., Kafrouni, R., Bouard, S., & Apithy, L. (2021). Do cultural capital and social capital matter for economic performance? An empirical investigation of tribal agriculture in New Caledonia. *Ecological Economics*, Issue *182*. https://doi.org/10.1016/j.ecolecon.2020.106933

24. Shults, S., & Lutskiv, O. M. (2022). Spatial and sectoral determinants of regional productive capacity: theoretical genesis and methodological principles of the study. *Regional Economy*, *4*((106)), 5–20. https://doi.org/10.36818/1562-0905-2022-4-1

25. Throsby, D. (1999). Cultural Capital. *Journal of Cultural Economics*, *23*(1/2), 3–12. https://doi.org/10.1023/a:1007543313370

26. Vecherskyi, V. (n.d.). Landscape cultural. Retrieved from Велика Українська Енциклопедія website: https://vue.gov.ua/

27. Xing, H., & Chi, J. (2021). Cultural Capital and China's Economic Growth. *Financial Engineering and Risk Management*, *4*(3), 7–17. https://doi.org/10.23977/ferm.2021.040302

28. Zugravu-Soilita, N., Kafrouni, R., Bouard, S., & Apithy, L. (2021). Do cultural capital and social capital matter for economic performance? An empirical investigation of tribal agriculture in New Caledonia. *Ecological Economics*, *182*, 106933. https://doi.org/10.1016/j.ecolecon.2020.106933

CULTURE AS A FACTOR IN THE DEVELOPMENT OF THE PRODUCTIVE CAPACITY OF UKRAINIAN REGIONS

*Svitlana L. Shults***,** SI "Institute of Regional Research named after M. I. Dolishniy of NAS of Ukraine", Lviv (Ukraine).

E-mail: swetshul@i.ua

Olha A. Voitenko, SI "Institute of Regional Research named after M. I. Dolishniy of NAS of Ukraine", Lviv (Ukraine).

E-mail: voytenko1209@gmail.com

https://doi.org/10.32342/3041-2137-2025-2-63-6

Keywords: culture, economic productivity, regional development
JEL classification*: R10, R15*

Amid the rapid changes in the global economic landscape, economic productivity remains a critical concern for nations worldwide. Understanding the factors that influence overall productivity or its components is particularly urgent for Ukraine's regions. This research is essential for ensuring the stability and sustainability of the state's socio-economic system.

The cultural sector, a long-recognized driver of productivity, plays a dual role. It is both a significant economic sector, contributing to GDP and regional GDP, and a complex, multi-structured phenomenon that directly and indirectly influences personal productivity. Understanding the role of the cultural sector in shaping the productive capacity of regions in 2021 is crucial for comprehending the pre-war situation and identifying potential development directions for the sector. This understanding is vital for the post-war reconstruction of Ukrainian territories.

The study's main hypothesis posits that cultural factors influence the total factor productivity (TFP) indicator in Ukraine's regions. The model includes several indicators of the cultural environment and the economic impact of culture in the country: the share of cultural heritage sites per 10,000 people, the share of household expenditure on cultural goods and services within the overall expenditure structure, the share of those employed in the cultural sector within the regional employment structure, and the share of cultural sector enterprises in the total number of enterprises in the region. Territorial disparities are observed across all indicators, highlighting the heterogeneity of Ukraine's cultural landscape. The dependent variable in the model is regional TFP.

Regression analysis revealed that the share of those employed in the cultural sector within the overall regional employment structure has a statistically significant impact on the TFP indicator, with a coefficient of determination of 0.48 and a p-value for the F-statistic of 0.0108 in the model. The influence of employment in the cultural sector can be attributed to the fact that work in this field requires highly qualified workers, involves innovation and knowledge diffusion, creates products with high added value, and is part of the creative economy. Therefore, increasing employment in this sector will positively impact overall labor productivity in regions and contribute to economic growth as a whole. The lack of statistically significant influence from other indicators requires further investigation. It is important to note that, in the context of war, the cultural sector remains a vital socio-economic resource for Ukraine. Supporting this sector, even in these challenging conditions, is crucial. In this regard, numerous international organizations that have launched various aid initiatives, including programs to support Ukrainian artists, preserve cultural heritage, and implement cultural and artistic projects, will have a positive impact.

Одержано 13.09.2024.