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RESEARCH

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Economic and legal bases of the Carpathian Euroregion development during the COVID-19 pandemic (Hungary, Slovakia, Poland, Ukraine)

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Abstract

The article dwells upon the history of the Carpathian Euroregion as the form of a cross-border cooperation. The peculiarities of the economic development of the Carpathian Euroregion before the COVID-19 pandemic were considered. The main ways of obtaining financial resources for the development of the Euroregion economy were identified. The structure of the Carpathian Euroregion and the system of normative legal acts regulating the activity of this association were analyzed. The main consequences and impact of the COVID-19 pandemic on the economic development of the Carpathian Euroregion were identified. Priority measures and activities for tourism development in the Carpathian Euroregion were discussed. The expediency of creating a tourist brand of the Euroregion and the need to promote tourism in the Euroregion at the international level were argued. The main international projects and programs of the Carpathian Euroregion regarding the cooperation between the states of the EU were studied. Proposals were made to improve the investment attractiveness of the Carpathian Euroregion and to overcome the consequences of the pandemic. The need to create a separate authority that will operate independently and ensure active communication in the Euroregion was established. It will also help find new sources of financial resources, develop a set of measures to support small and medium businesses, connections between the territories of the Euroregion and ensure an effective border and customs regime in the Carpathian Euroregion.

Keywords: Euroregion, Cross-border cooperation, Pandemic, Economic development, Tourism

Introduction

At the end of 2019, the world's economic institutions forecast a 2–3% increase in the world economy in 2020, but due to the COVID-19 pandemic, all leading countries in the world imposed a strict quarantine to combat the coronavirus (Cherniavskiy et al., 2019). The new economic crisis posed new challenges to the international community and stipulated the search for new ways to overcome them. The COVID-19 pandemic was characterized by extremely rapid and large-scale proliferation, which halted the economies of many countries around the world. The global financial crisis of 2020 caused by

the COVID-19 outbreak led to long-term changes in global commodity markets (Gritsyuk & Sak, 2021).

Meanwhile, the development of a cross-border cooperation is one of the important factors in the balanced economic development of the country, improving the living standards of the population. Thus, an effective regional cooperation promotes the development of trade, culture, tourism, ecology and education (Lavrentieva et al., 2020). A cross-border cooperation also promotes search for new economic resources, competitiveness of the country in the economic space, the development of small- and medium-sized enterprises, the intensification of foreign economic activities, and the development of trade cooperation. The cooperation with the EU countries ensures the fulfillment of the tasks set for Ukraine by the Association Agreement between the EU and its Member States, of the one part, and Ukraine, of the other part. The pandemic caused significant human losses, which was the biggest factor in the economic crisis. The outbreak of the COVID-19 pandemic caused political, social, economic, religious and financial instability in all countries of the world. Most countries closed their borders. Enterprises moved to remote work or introduced a standstill. In the conditions of a quarantine, schools were closed, economies of many countries suffered significant losses, which led to a change in the world economic development. Despite the prompt response of the international community and the development of a vaccine, it is not yet possible to pinpoint the number of casualties and economic losses suffered by humanity as a result of the COVID-19 pandemic. Thus, from 2019 to 2020, in the world economy GDP changed as follows: USA: 2019—2.3, 2020—5.9; China: 2019—2.7, 2020—4; Japan: 2019—0.7, 2020—5.2; Germany: 2019—0.6, 2020—7; Great Britain: 2019—1.4, 2020—6.5 (Makaliuk, 2021).

In the meantime, it is objectively necessary to identify the current consequences of the pandemic impact on the world economy, including on the development of the Carpathian Euroregion. It is also important to analyze the system of measures and instruments developed by the governments of the EU to overcome the economic crisis. With the help of this study, it will be possible to predict the economic development of the Euroregion in the short term (Fedik, 2021). The negative effects of the global economic crisis caused by the pandemic created numerous problems in the field of economic development of the Carpathian Euroregion, especially in tourism and trade. The processes of integration, globalization and regionalization of the economy actualize the in-depth study of the cross-border cooperation between the regions of Ukraine. Some issues of the cross-border cooperation of the regions are considered in the State Strategy for Regional Development for 2021–2027.

At the current stage of the development of economic and legal relations between Ukraine and the EU, the Carpathian Euroregion as a form of a cross-border cooperation plays an extremely important role. Therefore, the high economic development of the Carpathian Euroregion is an important instrument. The positive consequences of the Carpathian Euroregion's 20 years of existence include improving and establishing communication between border areas, developing the Carpathian infrastructure, attracting new investors and increasing the investment engagement of the Euroregion, participating in special EU programs designed to improve the economy. At the same time, a number of negative aspects remain, namely the low level of funding of Euroregion member states and the slow implementation of the EU legislation (Kukalets, 2013). In this regard,

the analysis and study of the economic development of the Carpathian Euroregion in the context of the COVID-19 pandemic is a topical issue.

The study of the economic and legal foundations for the development of the Carpathian Euroregion during the COVID-19 pandemic and improving the investment attractiveness and activity prompted this research. The main objectives of the article are: (1) the analysis and the study of economic and legal principles of the Carpathian Euroregion development in the context of the COVID-19 pandemic; (2) the analysis of peculiarities of the cross-border cooperation mechanisms in the Carpathian Euroregion; and (3) the identification of the main consequences and impact of the COVID-19 pandemic on economic development of the Carpathian Euroregion.

As a result of the study, the article examined the history of the Carpathian Euroregion as a form of the cross-border cooperation. The peculiarities of functioning of the cross-border cooperation mechanisms in the Carpathian Euroregion are analyzed. The specific features of the economic development of the Carpathian Euroregion before the outbreak of the COVID-19 pandemic were considered. The main ways of obtaining financial resources for the development of the economy of the Euroregion were revealed. It is noted that the interregional association of the Carpathian Euroregion is a political structure that promotes a cross-border cooperation and has its own system of normative and legal acts and a corresponding structure. The structure of the Carpathian Euroregion and the system of normative and legal acts regulating the activity of the given association were considered.

The State Strategy for Regional Development for 2021–2027 was analyzed and priority directions of economic and legal development of a cross-border cooperation until 2027 were identified. The main consequences and the impact of the COVID-19 pandemic on economic development of the Carpathian Euroregion were determined. Priority measures and directions of tourism development in the Carpathian Euroregion were considered. The expediency of creating a tourist brand of the Euroregion and the necessity of popularization of tourism in Euroregion at the international level were argued. The main international projects and programs of the Carpathian Euroregion within the framework of the cooperation between the European Union states were analyzed.

In the course of the study, the proposals on the improvement of investment attractiveness of the Carpathian Euroregion and the elimination of pandemic consequences were developed. In this regard, it is necessary to create a separate institution, which will act independently from the official representation of the Carpathian Euroregion in Ukraine and will provide active communication of the national office and offices of other countries of Euroregion. This institution will help to find new sources of financial resources, labor resources, development of a complex of measures to support small and medium-sized business. It will also create favorable conditions for tourism, connections between the territories of the Euroregion and ensure effective border and customs regime in the Carpathian Euroregion, with a proper legal regulation of labor relations. The expediency of making appropriate changes in the legislation of Ukraine for the purpose of fulfilling the defined needs was argued. The result of these actions should be the transformation of the Carpathian Euroregion into a European megaregion with the competitive economy and the attractive investment space, which will become the leading institutional form of a cross-border cooperation in the European Union.

Materials and methods

A significant number of works is focused on the study of a cross-border cooperation, including the economic development of the Carpathian Euroregion. The effectiveness of the Carpathian Euroregion as an interregional association and its economic development, was analyzed in the works by Babets (2006), Bobrik (2020), Chepelenko (2020), Goblik (2017), Kifyak (2021a, 2021b), Khiminets et al., (2021), Korneliuk et al. (2021), Kukalets (2013), Malyar (2021), Pak (2016), Prykhodko (2020), Reis (2021), Sokolovsky (2021).

In their study “Development of the international cooperation in strategic prospects of sustainable spatial development of the Carpathian Euroregion”, V. P. Parhodko and V. O. Bobryk analyzed the main trends of the Carpathian Euroregion development and identified the problems that hinder its integration into the world economic space, in particular, caused by the COVID-19 pandemic. They proved that the priority direction of the Carpathian Euroregion development is to transform it into a new European megaregion, which will actively promote itself in the European Union with new goals. Directions of the international economic, scientific and technical cooperation in the context of strategic prospects of sustainable development of the Carpathian region are based on the following priorities: support of the Euro-Atlantic integration of Ukraine; the harmonious development of human resources; an increase in accessibility and development of public transport system in the Carpathian Euroregion and the reduction of isolation of transport; the creation of a competitive economic structure within the framework of the Euroregion; the improvement in the field of environmental protection and nature protection; complex development of tourism in the Carpathian Euroregion; the development of health, social and cultural environment; further strengthening of external relations and preparation for acceptance of support of the European Union.

In his work “Intensification of development of the border territories of Western Ukraine with the help of a cross-border cooperation”, A. A. Holovko gave an overview of the situation in general with the identification of the most characteristic features of the development of cross-border and inter-territorial relations. He also suggested improvements for the state authorities and local self-government bodies, in particular, in the Carpathian Euroregion.

In her article “Regulation of environmental safety through a cross-border cooperation in the Carpathian region”, O. Sviezhevtseva focused on potential threats to environmental safety in the international security system of the Carpathian region. She justified the necessity of research into a solution of ecological problems of the trans-border territory. A cross-border cooperation in the region was defined as an important foundation for achieving environmental security. Access to the European Neighborhood Instrument and its border cooperation programs for western cross-border regions of Ukraine provides significant opportunities for regulation of environmental safety. As a successful attempt to achieve environmental safety, information on international projects aimed at preventing emergencies and energy saving in the Carpathian Euroregion was analyzed.

T. F. Kulchar, in his study “The Carpathian Euroregion as the main form of a cross-border cooperation in the context of eastern EU enlargement”, considered the history of the Carpathian Euroregion as the main form of a cross-border cooperation. In the course of

his study, special attention was paid to the analysis of the highest institutional form of a cross-border cooperation between the border regions of Ukraine and Hungary.

However, despite numerous scientific researches in this sphere, there is no research on the economic and legal development of the Carpathian Euroregion during the pandemic. Therefore, it is necessary to study the economic and legal development of the Carpathian Euroregion in the context of COVID-19 to develop a single mechanism to overcome the negative consequences of this phenomenon.

Meanwhile, the consequences of the COVID-19 pandemic on the world economy and economic development of the Carpathian Euroregion are dwelt upon in the works by Butenko (2021), Fedik (2021), Gritsyuk (2021), Mozolev (2021), Panfilova (2020), Vergelyuk (2021). However, despite numerous scientific studies in this field, it is necessary to study the economic development of the Carpathian Euroregion in the context of COVID-19 to develop a single mechanism to overcome the negative consequences of this pandemic.

The research consisted of several basic procedures. The first was the selection of literature. It was carried out in two stages. At first scientific documents published in English were collected. The search was aimed at publications focusing on the development of the Carpathian Euroregion, the consequences of COVID-19 on the development of certain countries, included in the Carpathian Euroregion. The search was limited to works published between 2019 and 2022, which provided novelty, but also wide coverage of existing literature.

The second step was the process of data classification, the elimination of repeated articles, not related documents or documents, which are not focused on issues of economic and legal development of the Carpathian Euroregion in the context of the COVID-19 pandemic. After this selection, there remained the documents that were relevant for the purposes of this study. These documents were grouped together with references to them (e.g., authors, magazine, title, year), keywords and a short description.

The literature review was conducted in the following stages. First, abstracts, journal articles, and conference talks were read, problems related to COVID-19 were identified and documented. Secondly, the sources were grouped depending on the peculiarities of the development of the countries whose territories are included in the Carpathian Euroregion.

The results of the literature review were analyzed in several stages. At the first stage, the key issues were thematically selected. These elements were organized by countries (Poland, Hungary, Romania, Slovakia, Ukraine). In this context, the key element is the scope of analysis, which focuses on each dimension. The main part of the article was prepared following the results of the review of the literature using the following methods.

The research paper uses a set of general philosophical, general scientific and special research methods. Methods of formal-logical (dogmatic), system-structural, comparative-legal and logical-legal analysis, deduction, induction were used, which allowed to determine the features of economic development of the Carpathian Euroregion.

In the research, the method of system analysis was adopted to study the various levels, manifestations of the implementation of policies on economic development of the Carpathian Euroregion when overcoming the effects of the pandemic. The structure of the international association Carpathian Euroregion was identified and studied with

the application of system-structural and functional methods. Meanwhile, the functional-instrumental method allowed to identify the main goals and functional purpose of the Carpathian Euroregion. Besides, the impact of this association on the further development of Ukraine's economy and mechanisms for implementing the Carpathian Euroregion development strategy in Ukraine was determined. The formal-legal method enabled a consistent analysis of legal norms regarding the formation, development and reform of the strategy for the development of a cross-border cooperation in Ukraine. The logical-semantic method provided an opportunity to formulate recommendations on areas that require further scientific substantiation and legislative support, including comprehensive and systematic measures to develop the economic potential and investment engagement of the Carpathian Euroregion. The forecasting method helped to outline the prospects for financial development and improving the investment engagement of the Carpathian Euroregion.

Theoretical methods of scientific knowledge were adopted to study the current state of economic development of the Carpathian Euroregion, as well as the experience of overcoming the economic consequences of the COVID-19 pandemic. Moreover, academic publications that covered the development of the economy of the Carpathian Euroregion in a pandemic were analyzed. Using synthesis and analysis, the features of the Carpathian Euroregion were considered. The synthesis method takes into account the experience of the Carpathian Euroregion member states in increasing the investment engagement of the region.

The economic development of countries from the Carpathian Euroregion in the pandemic was studied by the adoption of a comparative legal method. The application of this method allowed to obtain new scientific results in the analysis of the Carpathian Euroregion projects created by Ukraine. All methods contributed to the comprehensiveness, completeness and objectivity of the study. The article also adopted the method of theoretical generalization to summarize and identify the economic potential of the Carpathian Euroregion and determine the main means of overcoming the negative consequences for the region's economy after the pandemic.

The theoretical and methodological basis of the research paper is fundamental research into the economic and financial theory, a cross-border cooperation and development of the Carpathian Euroregion. The information base of the study consists of the works of domestic and foreign scholars on the economic development of the Carpathian Euroregion and a cross-border cooperation, materials of scientific periodicals, analytical reviews, official Internet resources.

Results and discussion

Carpathian Euroregion before the pandemic

For a high level of the economic development of a region, the cross-border cooperation aimed at integrated regional development and integration of border areas of neighboring countries is important. All western Ukrainian border regions are members of the Carpathian, Upper Prut and Bug Euroregions, where the presence of the border is a kind of resource and stimulator of the economic development, which increases investment flows from neighboring countries (Brych & Kyfyak, [2021](#)).

The Carpathian Euroregion was founded in 1992 in the Hungarian city of Nyíregyháza. The initiative to create this Euroregion was taken by experts from the East-West Research Institute. Thus, in 1992, for the first time, a meeting of local and regional representatives of the Carpathian Euroregion was held to determine the priorities of the economic development of cross-border cooperation in the Carpathian region and the Tisza Valley. In the same year, in the city of Uzhhorod, the leaders of the interested regions prepared the basic documents of the association—the Agreement and the Charter. As a result, after a set of meetings and negotiations on 14 February 1993 in Debrecen (Hungary), the Foreign Ministers of Hungary, Poland, Slovakia and Ukraine adopted the Declaration on the Establishment of the Carpathian Euroregion (Sokolovsky, 2021).

Thus, the representatives of the Carpathian Euroregion within the Council of Europe Convention defined the main goals of the Association, namely, coordination of joint actions, promotion of cooperation in economics, science, environment, education, culture and sports, support for cross-border projects (Levchenko et al., 2021). The Carpathian Euroregion was established with the participation of the Foreign Ministers of Ukraine, Poland, Hungary and Slovakia. The representatives of the Euroregion member states determined its scope and further functioning (Bidzil, 1998). It is possible to structure the Carpathian Euroregion traditionally as a union in such cross-border regional units as the region of the Carpathians—Ukraine (borders of Zakarpattia, Ivano-Frankivsk, Lviv, and Chernivtsi regions), the region of the Carpathians—Poland (Subcarpathian Voivodeship), the region of the Carpathians—Slovakia (Prešov and Košice regions); the region of the Carpathians—Hungary (Borsod-Abaúj-Zemplén, Hajdú-Bihar, Heves, Jász-Nagykun-Szolnok, and Szabolcs-Szatmár-Bereg counties, as well as the cities with regional status such as Miskolc, Debrecen, Eger, Nyíregyháza), the region of the Carpathians—Romania (districts of Satu Mare, Maramureș, Bihor, Suceava, Botoșani, Harghita) (Carpathian Euroregion: five countries, one ecosystem..., 2022).

The Carpathian Euroregion is recognized as one of the leading institutional forms of the cross-border cooperation between border regions. It is worth noting the specific features of the Carpathian Euroregion. This interregional association is established on the basis of ancient traditions and ties, consists of regions with high migration rates, has a favorable geoeconomic location at the border with the EU, creates opportunities for efficient infrastructure of the cross-border cooperation. Administrative-territorial units of the Carpathian Euroregion should become a key transit bridge between Europe and Asia to maximize the potential of transport opportunities for the economic development (Kulchar, 2013).

The Interregional Association of the Carpathian Euroregion is a political structure that promotes the cross-border cooperation and has its own system of regulations and structure. Thus, the structure of the Euroregion consists of four parts: the Council, the Secretary General, the National Offices and the Working Commissions. The Council is the highest body in the Euroregion, where each region has 10 representatives from the central and local administrations, as well as from other private and public organizations. The Secretary General is elected every 2 years and acts as the Executive Director. There are also five national offices responsible for coordinating the activities of one of the five thematic working committees (Smętkowski & Rok, 2020). National representations of the Carpathian Euroregion were established in each of the member countries

of the region. On October 2, 2007, the Association of Local Self-Government Bodies “Carpathian-Ukraine Euroregion” was registered in Ukraine. Thus, in November 2008, the Interregional Association of the Carpathian Euroregion recognized the Association of Local Self-Government Bodies “Euroregion Carpathians-Ukraine” as the official representation of Ukraine in the Carpathian Euroregion (Lazur et al., 2021).

At the same time, the economic development of the Carpathian Euroregion has recently improved. For example, opportunities for communication between business representatives of the Association were created, cross-border trade was expanded, international fairs and exhibitions were regularly held, regional investment increased, the number of border crossings grew, financing and development of the road system and freight business improved, tourism became more popular, including ecological (Carpathian Biosphere Reserve, improving the aquatic environment in Uzhgorod and creating new types of tourist routes) (Tanaka, 2006). The economic development of the Carpathian Euroregion is facilitated by financial resources provided by the EU. Scholars identify three main periods of development of this assistance. The first period is the preparation of new members of the EU for their membership in the community (PHARE assistance program). The second stage began after the EU proclaimed the “European Neighborhood Policy”. In 2009, a new EU initiative, the Eastern Partnership, was created, launching the third phase of financial assistance (Prykhodko & Bobryk, 2020).

Despite the COVID-19 pandemic, in 2020, a meeting of representatives of the Carpathian Euroregion was held and the main issues and prospects for the development of the Euroregion were discussed. Thus, during the working meeting on the preparation of the regional strategy of the EU for the Carpathian Euroregion, the participants discussed the priorities of cooperation, implementation of joint projects. As a result, the representative of the Government of Ukraine noted that the development of the Carpathian Euroregion was one of the priorities of the state regional policy of Ukraine, defined in the State Strategy for Regional Development for 2021–2027. All representatives reaffirmed current issues related to the sustainable economic development of regions, the infrastructure improvement, as well as actions to overcome the economic consequences of the COVID-19 pandemic (An international meeting was held to prepare an EU macro-regional strategy for the Carpathian region, 2020).

The program identified priority areas for the economic development of a cross-border cooperation until 2027, including ensuring Ukraine’s participation in the initiative to define a macro-regional strategy of the EU for the Carpathian Euroregion, improving road and border infrastructure, constructing roads to border crossing points located within the mountainous border areas of the Carpathians, increasing the level of infrastructure and information accessibility of mountainous border areas of the Carpathians, improving the quality of customs services at border crossing points located within the mountainous border areas of the Carpathians, strengthening economic cooperation in mountainous regions (Resolution of the Cabinet of Ministers of Ukraine No 408..., 2021).

At the same time, the COVID-19 pandemic continues to expand, which poses a danger not only to the population, but also has negative consequences for the economy, including the economic development of the Carpathian Euroregion. The consequences are particularly tangible for the tourism sector, which accounts for a significant share of

gross domestic product and has an impact on the region's economy. For the Carpathian Euroregion, the tourism industry is mostly dependent on such external factors as epidemics, financial crises, climate cataclysms, etc. Thus, on the part of the Government of Ukraine, the tourism of the Carpathian Euroregion has not received a rapid systemic response in the form of possible measures to support the tourism industry, compared to the average response and types of measures implemented by governments of the EU member states (Butenko, 2021).

The strategy of the Carpathian Euroregion identifies tourism as one of the priority sectors of the economy, noting that the region has all the prerequisites for the intensive development of event tourism. It is important to understand the importance of tourism for the region, in particular the contribution of tourism to the economic activities of the district. Border location, favorable climatic conditions, rich recreational resources, economic and scientific potential, socio-cultural and historical traditions open wide prospects for the development of event tourism within the Carpathian Euroregion (Bilous, 2021).

Cross-border cooperation programs aimed at overcoming the effects of the pandemic

The most significant impact of the pandemic has been exercised on industries that involve large crowds in small areas or long-term communication at close range. Accordingly, the sphere of services in the Euroregion suffered significant losses, namely passenger transportation, the activities of catering establishments, hotels and restaurants, etc. These are mostly small- and medium-sized businesses, whose activities are mainly subject to a number of prohibitions and quarantine restrictions (Ministry of Economic Development, Trade and Agriculture of Ukraine, 2020).

Currently, due to its unpopularity with tourists, tourism and the hotel infrastructure are enduring the financial crisis caused by the COVID-19 pandemic. According to the State Agency for Tourism Development, in 2020 the losses of the tourism industry amounted to UAH 60 billion. In general, significant changes in the organizational and managerial components of hotel operations in the context of the COVID-19 pandemic have been identified (Kifyak, 2021a, 2021b). Thus, to overcome the consequences of the pandemic and increase the economy, the western Ukrainian border regions offer new routes to tourists, reduce prices for services and effectively promote tourism products, while actively using digital technologies. The development of virtual tourism involves the digitalization of museums, the preparation of 3D images of historic settlements, interiors of individual historical and cultural buildings. This requires a cooperation between tourism, information and communication. The experience of the regions of Poland, Slovakia and Hungary confirms the effectiveness of price incentives for the sale of tourist products, especially on domestic routes and individual car tours, which significantly reduces the risk of viral disease (Kifyak, 2021a, 2021b). That is, to increase the economic development of the Carpathian Euroregion, it is necessary to ensure the development of virtual tourism.

The development of tourism in the Carpathian Euroregion is attributed to the fact that this region has a unique natural, historical and cultural heritage, recreational and resource potential and is characterized by favorable economic, geographical and geopolitical combinations, as well as relatively high environmental security (Humeniuk

et al., 2021). In the event of the spread of the COVID-19 pandemic, the following areas of tourism development in the Carpathian Euroregion should be prioritized: attracting resources from NGOs, introducing preferential credit lines for domestic travel, preferential pricing policy for moving tourist groups, domestic rail and road transport and ticket prices with possible subventions; deferral of tax liabilities for accommodation and service of tourist groups. Thus, the regional representatives of the Carpathian Euroregion need to form a tourist brand of the Euroregion, which should be promoted internationally. It is also necessary to promote the international engagement of the Euroregion in such areas as ecotourism, extreme tourism, health and recreational tourism (Mozolev & Khmara, 2021).

Thus, the pandemic, having influenced the development of e-commerce, provided an opportunity to develop online commerce, which has gained an advantage over offline commerce. The global nature of COVID-19 has led to the strengthening of a cross-border cooperation and the further development of procurement and supply on the Internet. The pandemic has shown that online trade can be an instrument to support small business, an economic engine for regional development. Social distance and quarantine restrictions have also affected the development of cross-border trade within the Carpathian Euroregion. That is why the use of e-commerce will also help improve the economic development of the region and increase the investment attractiveness of the region's products (Panfilova, 2020).

Meanwhile, in terms of economic development, especially during the pandemic, significant opportunities for the Carpathian Euroregion open access to the European Neighborhood Instrument and its cross-border cooperation programs. For example, among the main issues analyzed by one of the largest cross-border programs HU-SK-RO-UA are issues of governance taking into account regional development trends, economic and social issues (Svezhentsova, 2021). Another factor in the economic development of the Carpathian Euroregion communities is the scope of cross-border cooperation programs, which form the basis for cooperation with neighboring communities in neighboring countries to solve common problems and attract new financial resources. Thus, the joint efforts of neighboring communities of the Carpathian Euroregion to solve common problems makes it possible to pool the resources of stakeholders and increase the economic attractiveness of the Euroregion (Golovka, 2021).

In the context of globalization and strengthening the integration between states, there is a growing need to expand and deepen international ties between local governments. Significant expansion of forms of international cooperation took place in conditions of confrontation of the global pandemic COVID-19. In particular, international relations, exchange of experience between the cities of the Euroregion, public authorities and local governments at various levels have begun to develop (Korneliuk et al., 2021). Given that the introduction of quarantine measures has significantly affected the behavior of society, society's attention is focused on isolation and digitalization. To ensure international cooperation, including the development of the economic potential of the Carpathian Euroregion, they began to actively use modern information and communication technologies, including the Internet. For example, the Council of European Municipalities and Regions has developed a special website where a city or region can find a partner for economic cooperation (Chepelenko, 2020).

The economic development of the Carpathian Euroregion depends on the implementation of a number of cross-border projects. Thus, one of them is the project “The World of Carpathian Rosettes”, which is being developed and implemented in the framework of international cooperation Poland-Belarus-Ukraine 2014–2020 with the support of the EU. However, the COVID-19 pandemic has displaced the project. Ultimately, the project envisages the creation of a joint Polish-Ukrainian Carpathian Cultural Heritage Center—“Rosettes”, which can significantly increase the economy of the Carpathian Euroregion and fill local budgets (Skoczylas, 2012).

Moreover, one of the important projects of economic development of the cross-border territories of the Carpathian Euroregion is the joint project “Small Carpathian Circle”. This project is an action plan for the implementation of measures aimed at building a new network of roads in the central part of the Carpathians, which should significantly increase the economic potential of these areas. The prospects of the project are the continuation of the planned network of roads to the state borders of Ukraine with Romania and Poland. If these measures are implemented, the cross-border areas of the Euroregion will receive a new modern network of roads, which will have an impact on the logistics optimization and improvement of tourist routes, increase financial revenues to local budgets, improve investment engagement of tourism, promote the Carpathians in the world (Malyar & Salyuk-Kravchenko, 2021).

On the other hand, another example of a cross-border cooperation to avoid the economic consequences of the pandemic may be the development of a cross-border tour between the Verkhovyna district of Ivano-Frankivsk region in Ukraine and the Maramureş district in Romania. Marmaroshchyna is the historical region of Zakarpattia, which is now divided into the Northern, belonging to Ukraine, and the Southern, belonging to Romania. The Ukrainian culture is manifested in the exhibits of the ethnographic museum in the city of Sighetu Marmăției. Apart from that, the monument of the Ukrainian wooden sacral architecture are preserved in some villages (for example, the Church of the Holy Archangels in the village of Rogoz), etc. However, the tourist product, which would promote research of the Ukrainian ethnic lands, especially in this area, is practically absent. Therefore, the proposal to develop a weekend tour for a small group of young people is a rather good way to improve the economic well-being of the Carpathian Euroregion (Lyubitseva et al., 2020).

To improve economic development of Carpathian Euroregion, the increase of tourists' interest should be promoted by the realization of the joint Carpathian Euroregion project “Carpathian tram” using mountain narrow-road railways, with the involvement of Romanian and Hungarian partners. The establishment of a network of historical railways will facilitate the formation of a single cultural sphere with the participation of five neighboring countries, making it attractive for foreign tourists. It is in the Carpathians that the center of Europe (near Rakhiv) is located, where it is possible to hold international culture and art festivals. It is expedient to create a biosphere reserve in the Marmarosk mountains and establish a passenger train by the Trans-Carpathian highway between Kiev and Bucharest via Rakhiv in cooperation with Romania (Lisovyi & Dolga, 2020).

Visual communication can be designed to solve the problem of speeding up vaccination in some countries. An interesting example in this context is Romania, where in

May 2021, a vaccination center was opened in the Bran Castle in Transylvania, which is known among tourists as the “Castle of Dracula”. The aim of this initiative is to increase the number of conducted vaccinations, since on weekends of May, every interested person could come to get vaccination in the Bran Castle without an appointment. Besides, each person could get free entrance to the exhibition of medieval torture instruments. At the same time, visual communication of the event responded to the already known image of the “Castle of Dracula”: “The castle used branding on the vampire theme to encourage people to undergo vaccination, which is part of the government’s campaign to encourage more Romanians to make vaccination”. This example of Romania is also relevant for other countries of the Carpathian Euroregion (A shot instead of a fang: in Romania, vaccination against the coronavirus is offered in Dracula’s castle, [2021](#)).

Problems, legislative regulation and prospects of economic development of the Carpathian Euroregion in a pandemic

Among the main problems of the economic development of a cross-border cooperation of the Carpathian Euroregion are insufficient institutional and legal support, low quality of border traffic services due to inconsistency of international road checkpoints with actual indicators and their congestion, insufficient investment climate of border regions of Ukraine. Addressing these issues should be a priority at the local and state levels (Reis & Kampov, [2021](#)).

Ukraine displays a wide range of the European integration possibilities, such as the attractive geographic location, the large developing market in Europe, competitiveness, etc. It is these tendencies that are indicated in the State Strategy for Regional Development for 2021–2027 (Vyshnovetska et al., [2021](#)).

Currently, Ukraine signed a number of agreements on free trade with 46 countries. These international agreements give access to many markets throughout the world and can facilitate the foreign investments rapid growth. However, it is important to take into account the fact that to meet such challenges, Ukraine should adapt national legislation on customs. Apart from that, the Carpathian Euroregion is located at the intersection of trade and tourist routes. Accordingly, it has enormous transit potential. This geographic location means that international transport corridors cross the region. This fact indicates that there is a need to develop a complex of measures to support small and medium-sized businesses, create favorable conditions for tourism, improve transport connections between the Euroregion territories, and ensure an efficient border and customs regimes in the Carpathian Euroregion.

The path of European integration chosen by Ukraine does not only require economic and political changes but also entails changes in Ukrainian legislation on customs, in particular. At the moment, constant active work regarding the development of amendments to Ukrainian legislation on customs issues and other spheres is being carried out to perform the set tasks. However, the coronavirus pandemic has had an impact on doing business in the touristic zone of the Carpathian Euroregion since it complicates labor relations and prolong the customs control in the region. The education system creates conditions for the employee to acquire the skills and competencies that are necessary for his flexibility and ability to enter the labor market in the context of the needs of today’s society (Dirgová et al., [2018](#)).

One of the first attempts to regulate labor relations during the pandemic is the adoption of the Law of Ukraine No 540-IX “On Amendments to Certain Legislative Acts of Ukraine Aimed at Providing Additional Social and Economic Guarantees in Connection with the Spread of Coronavirus Disease (COVID-19)” (2020), which enshrines flexible forms of labor organization and remote work. The next considerable step towards the regulation of labor relations during the pandemic is the Law of Ukraine No 1213-IX “On modification of some legislative acts of Ukraine concerning the improvement of regulation of remote work, telework and work with application of a flexible mode of working hours” (2021). This Law amended the Code of Laws on Labor of Ukraine with arts. 60-1 and 60-2 to establish such forms of labor organization as telework and remote work. These articles provide for carrying out responsibilities by employees from an offsite location other than the official workplace, different conditions of the application of the internal labor order and working hours to the employee, etc. This Law allowed to move the employees to telework or remote work without a special obligatory agreement on such a working form during the spread of the epidemic, pandemic or the necessity of self-isolation. In this case, such moving occurs on the basis of the employer’s order and under conditions of informing the employee about this order during 2 days after its approval but before establishing a special working mode.

In 2021, at its first reading, the Verkhovna Rada of Ukraine adopted the Draft Law No. 5161, which proposes to regulate non-standard forms of employment. The Draft Law presupposes the introduction of a new working mode with flexible working hours. The labor contract with the flexible working hours differs from the others by the absence of a specific time for work performance and the absence of guarantees that work will be provided on a regular basis (Kulikov, 2021). The performance of unstable but repetitive works with obligatory control of their performance by the employer is typical for such a working mode. The agreement with the flexible working time is expedient to conclude with accountants and translators, who periodically perform work if requested by the employer (preparation of specialized financial documentation, translation of documents). Such work of the legislature can be considered a step forward. However, it is not sufficient, taking into account the current realities of labor legislation.

The ongoing COVID-19 pandemic is currently the most serious problem for the development of cross-border cooperation in the development of the Carpathian Euroregion (Výrostová et al., 2021). Despite the fact that the situation has improved with the invention of the vaccine, the problem of development has been complicated by Covid restrictions. A comparative study of the competitiveness of border regions of Ukraine and foreign countries that implement international cross-border cooperation programs shows the presence of asymmetries in local economies (Ustych et al., 2014). These asymmetries have a positive impact, as the study of various potentials, resources, rules in the economy contribute to the effect of the comparative value of economic activity. Moreover, the presence of asymmetries in local economies has a negative impact on the economic development of the Euroregion, as the development of the western border regions remains depressed for a long time with a low level of their integration (Prihodko & Bobryk, 2021). As of today, there are still significant differences in the level of development of border, business and information infrastructure, which according to the logic of cooperation within the Euroregions, should have disappeared long ago (Goblik, 2017).

Within the Carpathian Euroregion, the geopolitical position of the Ukrainian-Polish border is the most favorable for resolving existing economic issues. In the western border of Ukraine special economic zones “Resort Truskavets”, “Yavoriv” are created. Researching the innovative model of cross-border cooperation of the border areas of Ukraine and Poland, Babets (2006) singled out their financial support within the following organizational and legal forms: (1) grant funds (TACIS, INTERREG programs), funds from local budgets provided by the Innovation Center cross-border cooperation; (2) grant funds, income from the provision of consulting services, implementation of innovation projects managed by the International Center for Innovation and Development; (3) funds of banking, insurance institutions, investment, venture, mutual funds - International Innovation Cluster; (4) resources of economic entities, interstate and national preferences—International Non-Governmental Organization “International Center for Innovation Cooperation” (Babets, 2006).

First of all, the Euroregion is a convenient base for implementing joint initiatives. An illustrative example is the implementation of projects aimed at developing infrastructure and improving transport accessibility under the Neighborhood Program “Hungary-Slovakia-Romania-Ukraine 2014–2020”, which covered the participants of the Carpathian Euroregion, and which attracted 10 million euros for development of border infrastructures (Khiminets et al., 2021). However, to successfully achieve the goals of the Carpathian Euroregion and overcome the economic consequences of the pandemic, it is necessary to change the approach to the perception of cross-border cooperation solely as a source of funding in favor of a new which will provide for the adoption of instruments of cross-border cooperation in the context of joint, coordinated cooperation between the regions of Ukraine and the EU to enhance economic development of cross-border areas and establish European standards in governance, economic sphere, intercultural cooperation (Kornelyuk & Matyushok, 2021). This can be achieved by means of additional measures, namely: to create a separate body, which will act independently from the official representatives of the Carpathian Euroregion in Ukraine, will provide active communication of the national office and offices of other countries of the Euroregion, and will help to find new sources of financial resources, to develop a set of measures to support small and medium-sized business, to create favorable conditions for tourism, to develop connections between the territories of the Euroregion and provide an effective border and customs regime in the Carpathian Euroregion. In addition, to find new ways to improve the economic development of the Carpathian Euroregion, Ukraine has created a project “Competition of initiatives of local Carpathian communities-2022” (2022). The grant of this project is UAH 250,000, and the main priority is aimed at the safety of communities in the Carpathian region and overcoming the consequences of COVID-19 for businesses.

Nowadays, the cross-border cooperation within the Carpathian Euroregion is usually implemented in a bilateral format at the level of “point projects”, as well as in the framework of separate target programs. As a result, the economic potential of the region as the main formation of a unified regional development policy remains unrealized (Carpathian Euroregion—Ukraine. 10 years together for the development of the Carpathians. Activity report for 2008–2017, 2018). Over the years of partnership in

the implementation of interregional cooperation, Ukraine is trying to create a holistic mechanism of regional development, based on a spatial approach and a developed institutional framework, give long-term sustainable effect in the form of harmonized integrated development of states and their regions and deepen their participation in international economic processes (Bobrik, 2020).

In the context of globalization, the strategic prospects of economic development are important to transform the Carpathian Euroregion into a new European megaregion, which will actively promote itself in the EU. To this end, it is necessary to develop and implement specific measures aimed at developing international economic cooperation of cross-border territories of the Carpathian region on the following priorities: competitive economy and attractive investment space of the Carpathian Euroregion; developed communication and effective border regime in the Carpathian Euroregion; development of cross-border cooperation aimed at community improvement, health care, employment and social development of the Carpathian Euroregion (Benc et al., 2015).

Ukraine's economy, including the Carpathian Euroregion, is dependent on demand for export products, which is falling in the global crisis. This, in turn, leads to a lack of the required amount of foreign currency, job cuts and, consequently, a complete slowdown in the economy. The Atlantic Council experts have prepared a set of principles that will help the economy to restore its economic potential after the coronavirus. In particular, to promote the growth of small and medium-sized businesses, promote civil society, create favorable conditions for foreigners. Strengthening good neighborly relations and deepening cross-border cooperation is important for Ukraine, especially in the face of current challenges and external threats, taking into account the European direction of our state policy (Lytvyn, 2016).

Given the natural and economic potential available in the Carpathian Euroregion, the strategic goal of long-term economic development of the territory is to create an effective market-based economic system based on optimal use of natural, logistical, labor, intellectual resources, ensuring material well-being and environmental security (Vergelyuk, 2021). The stable development of the Carpathian Euroregion, first of all, requires a high level of confidence in human resources. Human resources that would receive the right and up-to-date education with competence development. Research on Ambrozy, Hvizdová, Sowa shows that the investments are insufficient, ineffective and unaddressed (Ambrózy et al., 2019). There is a need to strengthen regional cross-border cooperation and strengthen lobbying. In addition to joint monitoring with the EU, program and project management mechanisms should be developed in accordance with the requirements of the EU (Prykhodko & Bobryk, 2020).

To improve the economic development of the Carpathian Euroregion and overcome the effects of the pandemic, it is necessary to take measures to improve the performance of the Carpathian Euroregion. In particular, it is necessary to create a separate executive body that will enable the national office to work actively with the offices of other countries in the Euroregion and provide assistance to governing bodies in practice, determine the framework of cooperation between the Euroregional member states and level of communication between representatives of the region, to develop comprehensive practices of cluster analysis within the Carpathian Euroregion, which

will allow to respond quickly to changes in world markets and study the competitive advantages of members of this association to improve economic development (Pak, 2016).

Conclusions

Thus, it is possible to conclude that the Carpathian Euroregion is a form of cross-border cooperation, namely an interregional association consisting of the border areas of Ukraine, Poland, Slovakia and Hungary. It has a favorable geoeconomic location and provides opportunities for efficient infrastructure in the border areas. The consequences of the COVID-19 pandemic also affected the economic development of the Carpathian Euroregion. Therefore, given that the priority area of the economy of this Euroregion is tourism, it is necessary to digitalize processes in this area. For instance, start holding online exhibitions, fairs, online tours around historical places. To do this, regional representatives need to prepare a special platform on which they can conduct the said activities.

At the same time, it is appropriate to use the website of the Council of European Municipalities and Regions, where each city and town in the Carpathian-Ukraine region needs to find a partner for the economic cooperation from other regions to effectively improve economic development of the Carpathian Euroregion and seek new investments. The support of existing international projects in the economic sphere, namely projects HU-SK-RO-UA, “Small Carpathian Circle”, TACIS, INTERREG and other regional projects of the EU is also important. The main goal of the Euroregion should be to find financial resources to boost the economy.

Furthermore, additional measures can be taken to improve the investment attractiveness of the Carpathian Euroregion and to overcome the consequences of the pandemic as follows: to create a separate body, which will act independently from the official representatives of the Carpathian Euroregion in Ukraine, will provide active communication of the national office and offices of other countries of the Euroregion, and will help to find new sources of financial resources, to develop a set of measures to support small and medium-sized business, to create favorable conditions for tourism, to develop connections between the territories of the Euroregion and provide an effective border and customs regime in the Carpathian Euroregion. The result of these actions should be the transformation of the Carpathian Euroregion into a European megaregion with a competitive economy and an attractive investment space, which will become the leading institutional form of a cross-border cooperation in the European Union. Given this, future research should pay special attention to the development of recommendations and proposals for the countries of the Carpathian Euroregion, which will promote economic development of the analyzed region and the cross-border cooperation between the participating countries with the purpose of overcoming consequences of the pandemic. The expediency of making appropriate changes in the legislation of Ukraine for the purpose of reaching of the defined goals is also argued.

Finally, additional measures can improve the investment engagement of the Carpathian Euroregion and overcome the consequences of the pandemic. Thus, it is necessary to create a separate body that will operate independently of the official representation of the Carpathian Euroregion in Ukraine and help to find new financial resources, develop

a set of measures to support small and medium-sized businesses, create favorable conditions for tourism, develop connections between the territories of the Euroregion and ensure effective border regime in the Carpathian Euroregion.

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Availability of data and materials

Data will be available on request.

Declarations

Ethics approval and consent to participate

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

Consent for publication

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