

MECHANISMS FOR DEVELOPING TOURISM CLUSTERS TO ENHANCE THE COMPETITIVENESS OF UKRAINE'S TOURISM INDUSTRY

Oksana Lytvyn¹, Olena Sushchenko², Iryna Kyryliuk³, Liudmyla Chvertko⁴, Liudmyla Neshchadym⁵, Inna Povorozniuk⁶, Svitlana Tymchuk⁷

¹ PhD. Senior Lecturer, Pavlo Tychyna Uman State Pedagogical University, 2 Sadova str., Uman, Ukraine, E-mail address: o.lytvyn@udpu.edu.ua

² Dr. Prof., Kyiv National University of Technologies and Design, 2 Mala Shyianovska str., Kyiv, Ukraine, E-mail address: helen.sushchenko@gmail.com

³ Assoc. Prof., Pavlo Tychyna Uman State Pedagogical University, 2 Sadova str., Uman, Ukraine, E-mail address: i.kyryluk@udpu.edu.ua

⁴ Assoc. Prof., Pavlo Tychyna Uman State Pedagogical University, 2 Sadova str., Uman, Ukraine, E-mail address: chvertko.l@udpu.edu.ua

⁵ Assoc. Prof., Pavlo Tychyna Uman State Pedagogical University, 2 Sadova str., Ukraine, E-mail address: l.m.neshhadym@udpu.edu.ua

⁶ Assoc. Prof., Pavlo Tychyna Uman State Pedagogical University, 2 Sadova str., Uman, Ukraine, E-mail address: povoroznyuk.i@udpu.edu.ua

⁷ Assoc. Prof., Uman National University of Horticulture, 1 Instyutaska str., Uman, Ukraine, E-mail address: sv_tumchyk@ukr.net

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Abstracts

The article proves that tourism clusters are one of the effective tools for the development of the tourism industry, since their activities contribute to increasing the competitiveness of enterprises, optimizing the use of resources, introducing innovations, interaction between tourism market participants and developing the regional economy. The purpose of the article is to identify effective approaches to the formation of cluster associations to enhance the competitiveness of the tourism industry of Ukraine. The economic advantages and prospects for the development of tourism cluster associations in certain regions of Ukraine are determined. The authors propose an optimal model that is comprehensive and takes into account the peculiarities of regional tourist attractions, tourist resources, infrastructure of tourist destinations and cluster associations of enterprises.

Keywords: cluster association, clustering, efficiency, region, tourism industry, tourism cluster, tourism enterprises.

JEL Codes: L83, Z32, O10.

Introduction

In modern conditions of intensifying globalization processes, socio-economic and political transformations, tourism as a component of the economic complex performs a number of socially important functions, including: economic, recreational, spiritual, humanitarian, socio-cultural, social, educational, and environmental. Due to the crisis caused by the COVID-19 pandemic and Russia's full-scale military invasion of Ukraine, the tourism

industry has suffered significant losses, which has significantly affected its functioning at the global and national levels. Crisis phenomena prompt us to rethink the further development of the industry and look for new directions to create a competitive national tourism product that can fully meet the tourist needs of tourists and ensure the comprehensive development of Ukraine while preserving ecological balance and cultural heritage.

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In a broad sense, the tourism industry can be defined as an intersectoral complex that includes transport and tourism enterprises; tourism-related enterprises; and a wide range of tourism services. The formation of tourism clusters is a form of economic integration of enterprises, firms, organizations and institutions whose activities are in the same business area based on economic interests and regional characteristics. A tourism cluster can be considered as a system of intensive production, technological and information interaction of tourism enterprises, suppliers of basic and additional services for the creation of a tourism product (Pasięka, 2021).

The advantage of the cluster approach is its focus on the microeconomic component, as well as on the territorial and social aspects of economic development. At the same time, cluster activities are accompanied by certain risks: poor financial performance of individual member companies may reduce the efficiency of the cluster as a whole; insufficient motivation of member companies to innovate due to insignificant competition within a particular cluster; difficulties in coordinating work and management activities.

The cluster approach can form a new aspect of tourism development at both the regional and national levels. The activities of tourism clusters not only help to restore the flow of tourists, but also stimulate innovation, improve the quality of tourism services and ensure closer interaction between market players, which helps to strengthen the competitiveness of the industry even in times of crisis.

A conceptual approach to the activities of tourism clusters requires the use of innovative solutions to increase the attractiveness of products, improve operations and management (Adamovskyi and Dorozh, 2023).

The purpose of the article is to identify effective approaches to the formation of cluster associations to increase the competitiveness of the tourism industry in Ukraine.

Literature review

A review of scientific works by Ukrainian and foreign scholars has revealed a

wide range of theoretical and practical approaches to the development of tourism clusters. The role of clusters in tourism has been repeatedly highlighted in scientific papers on tourism management and competitiveness. J. Ferreira and C. Estevão (2009) presented a conceptual model to analyze how a tourism cluster contributes to regional competitiveness. H. Ulinuha et al. (2024) emphasize the effectiveness of the cluster approach in creating competitive tourism products, especially in the context of community rural tourism, where activity segmentation plays a key role. The impact of clustering on the development of tourist destinations and its role in stimulating regional development, promoting cooperation between organizations, fostering innovation, stimulating entrepreneurship, and supporting local communities was studied by A. Sohn and M. Beni (2023). D. Nurjannah et al. (2019) in their study consider the issue of assessing the effectiveness of tourism clusters and propose a methodology for determining it.

Given that the problem of organizing the tourism business taking into account environmental and cultural impact is becoming increasingly relevant today, I. Sabalenka et al. (2021) explore the possibilities of integrating cultural factors into the process of modeling the socio-economic sustainability of regional tourism clusters. Juan B. Duarte-Duarte et al. (2021) proposes a methodology for identifying tourist routes in a particular region using clustering methods. This approach helps to speed up the decision-making process related to the design and creation of routes and maximizes the potential benefits of tourism. The formation of tourism clusters contributes to the creation of regional tourism brands and strengthens well-known geographical concepts, differentiated positioning of clusters in the market to improve the attractiveness, marketing, productivity and management of destinations (Mirčetić et al., 2019).

Clustering contributes to the competitiveness of regions through the efficient use of resources and the creation of an innovative ecosystem that brings together key players in the tourism market. A study conducted by V. Mazur and O. Galko (2022) emphasizes the importance

of tourism clusters as a tool for promoting regional development and economic growth in Ukraine. Continuing the topic of clustering in the tourism industry, N. Shpak et al. (2022) developed a scientific and methodological approach that allows to identify groups of regions that are similar in terms of tourism development based on certain criteria. I. Merylova (2024), developing a spatial model of a regional cluster, emphasizes the need to take into account the typology of recreational resources in order to ensure an integrated approach to the use of both tangible and intangible resources to form a sustainable tourism infrastructure and increase the attractiveness of the region.

However, given the dynamic changes that have taken place in Ukraine in recent years, it is necessary to deepen the study of mechanisms for the development of tourism clusters to increase the competitiveness of the tourism industry in Ukraine, in particular in the context of martial law and post-conflict recovery.

Methodical approach

The study is based on a systematic approach. To solve the tasks set in the article, the following general scientific and specific methods of scientific cognition were used: regularization method – determination of stable relationships between the subjects of tourism clusters and their impact on the competitiveness of the tourism industry; dialectical method – identification of patterns of interaction between tourism market participants that contribute to the formation of effective models of cluster development; method of regularization and systematization – systematization of effective tourism clusters; abstraction method – forming an optimal model for the development of competitiveness of tourism clusters at the regional level, identifying the main factors that affect the effectiveness of cluster associations in the tourism industry of Ukraine; formalization method – presenting the mechanisms of tourism cluster development in the form of generalized models and figures, which ensures their structuredness and logical order; method of synthesis – generalization of the obtained results, combination of individual

elements of the cluster model into a single system and formation of an integrated approach to strengthening the competitiveness of the tourism industry of Ukraine; grouping method – classification of tourism clusters according to various criteria, which allowed to highlight the key features of cluster functioning, identify common and distinctive features between them, and develop effective mechanisms for their development.

Results

In modern conditions of development of the world economy clusters arise not only in traditional sectors of the economy, but also in the service sector, and therefore in the tourism industry. In tourism, the cluster is interpreted as a system of interaction of tourism enterprises that are geographically concentrated and use common tourism resources. The borders of the tourist cluster are constantly changing, because new enterprises always appear, new areas of activity develop, the market and the conditions of its functioning change. Clustering is a process of concentration on the basis of the territorial proximity of enterprises and related sectors of the economy.

All enterprises participating in the cluster association - both tourist and related, are obliged to introduce the following strategic vectors of integration into their activities:

1. Operational vector: establishing interaction with non-independent, dependent members of cluster associations (catering establishments at hotel complexes, hostels, etc.) and involving them in the overall system of cluster functioning.

2. Strategic vector: increasing the competitive advantages of each individual participant in the cluster association and covering new market segments both at the domestic and international levels.

3. Adaptive vector: establishing a quality service process, expanding the range of tourist products and services, applying an effective marketing strategy, attracting highly qualified workers.

The advantages of clustering are shown in Figure 1.

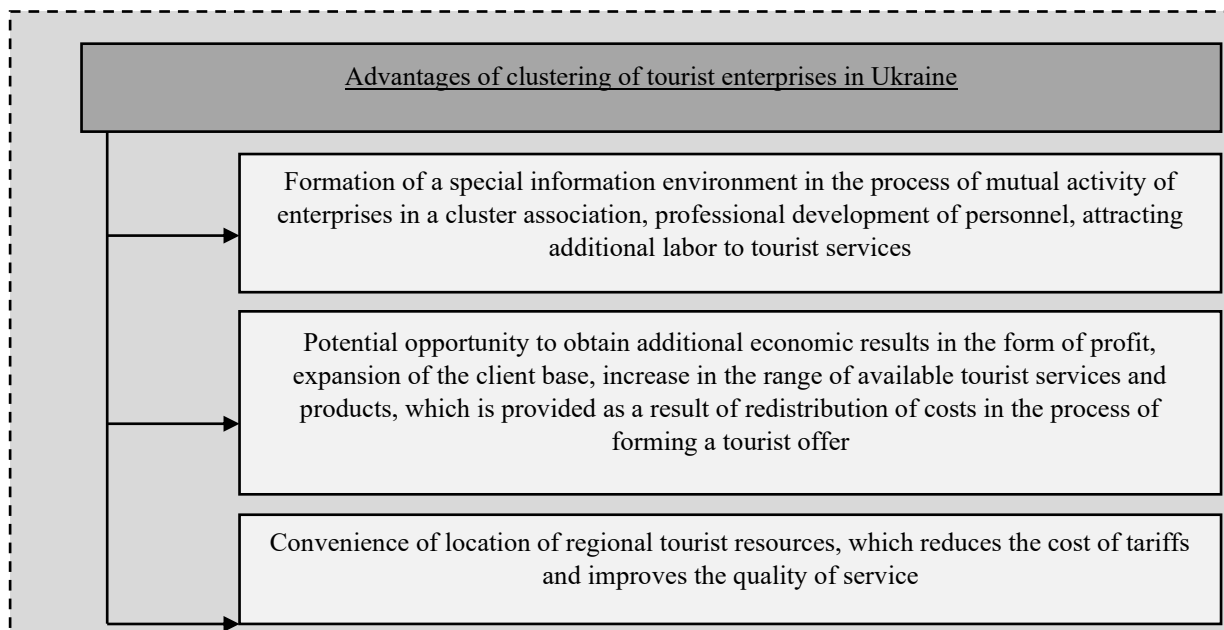


Figure 1. Advantages of clustering of tourist enterprises in Ukraine

**Source: compiled by the authors on the (Chhetri et. Al., 201; Costa and Lima, 2018).*

A detailed analysis of strategic vectors of integration, formed on the basis of modified perspective plans of tourist enterprises, makes it possible to interact comprehensively and systematically in all integration cluster trends and individual regional participants. It is necessary to consider:

- tourist target demand in the context of each individual region; demand of enterprises-participants in quality labour resources, security,

opportunities for promotion in the domestic and international markets, etc.;

- available resources of the cluster association of enterprises, while taking into account government support, regulatory framework, tax system, investment climate, directly affecting the financial viability of clusters.

The optimal model for the development of competitiveness of tourism clusters at the regional level is shown in Fig. 2.

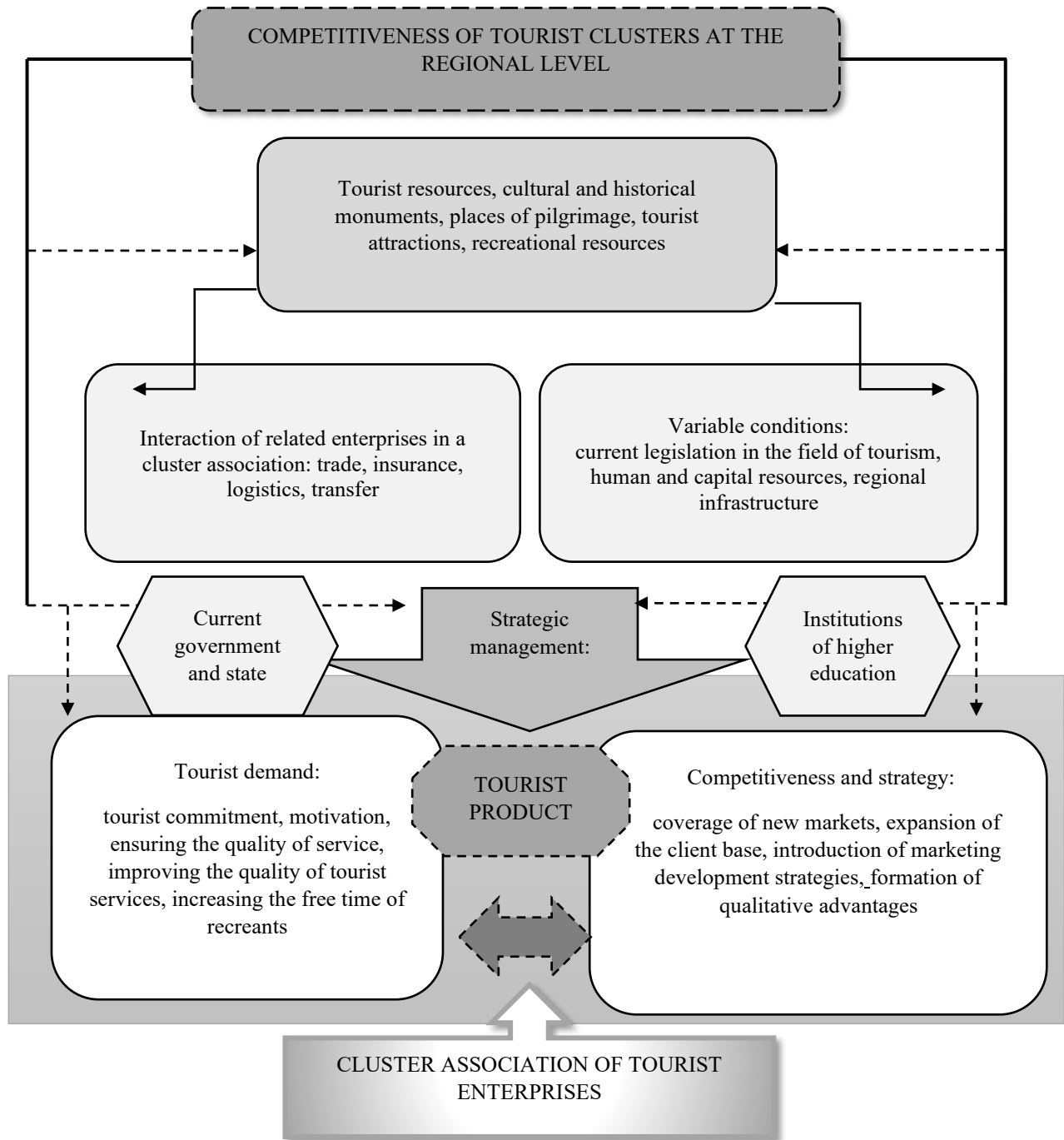


Figure 2. Regional optimal model of development of competitiveness of tourist clusters

The main element of the model is the competitiveness of the tourism cluster. It also characterizes the key role of the state and its government in determining the competitive policy of tourist cluster associations and determines the role of higher education institutions in the training of highly qualified

personnel. The characterized determinants are basic for the competitive advantages of the tourism cluster, and therefore for regional development.

This type of analysis combines all elements of the cluster, taking into account two levels (Fig. 3).

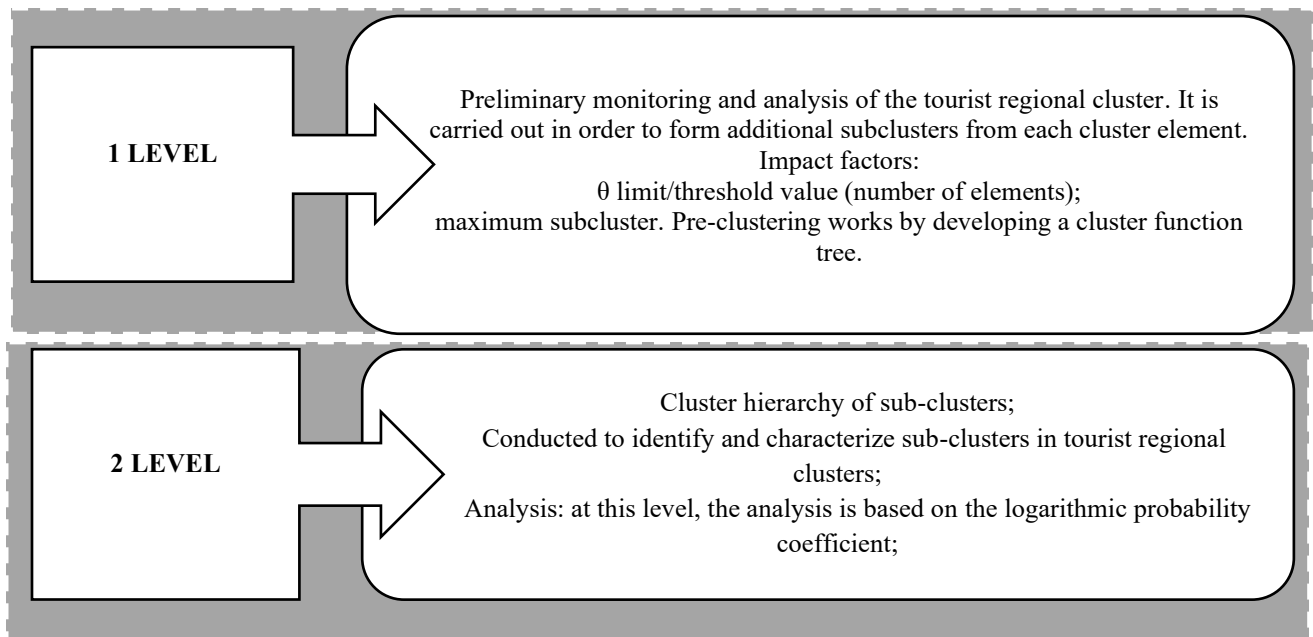


Figure 3. Algorithm for two-level analysis of tourist clusters

Provided that permanent and categorical data of the tourism sector are analysed, it is worth using the logarithmic probability coefficient (Nurjannah et al., 2019). The logarithmic probability coefficient between the i -th and g -th clusters is determined by the formula:

$$d(i, j) = \xi_i + \xi_j - \xi_{i,j}, \quad (1)$$

with

$$\xi_s = -N_s \left(\sum_{k=1}^{Ka} \frac{1}{2} \log(\sigma_k^2 + \sigma_{sk}^2) + \sum_{g=1}^{Kf} \mathcal{E}_{sg} \right) \quad (2)$$

де $d(i, j)$ – ratio between the i -th and j -th cluster;

$\xi_{i,j}$ – cluster dispersion;

ξ_s – combination between cluster and subclusters;

Ka – number of continuous variations;

Kf – number of categorical variables;

σ_k^2 – index of variance in the i -th, j -th or combination between the i -th, j -th continuous variable.

At the beginning of the analysis of the tourist cluster, it is necessary to determine the scale of limit indicators for each element. Based on the selected data characterizing the tourist cluster, the analysis is carried out. We propose to take as a basis the following indicators:

- availability of tourist resources (X1);
- tourist infrastructure (X2);
- number of enterprises in the cluster association (X3)
- cluster location (X4);
- availability of highly professional workers in the tourism sector (X5);
- number of tourists and sightseers served by the cluster (X6);
- the amount of profit received from tourism activities (X7).

The basis for the two-level analysis was chosen the largest operating tourist clusters in Ukraine (Fig. 4). The clusters are presented as follows:

1. Association “Volyn Tourist Cluster”
2. Tourist cluster “Kamenetz”;
3. Cluster of rural tourism “Boykovsky colour”;
4. Tourism cluster “Picturesque Berezhanshchina”;
5. Reichenbach tourist cluster;
6. Poltava Regional NGO “Regional Tourist Cluster”;
7. Agro-ecological-recreational cluster “Frumushika-Nova”.

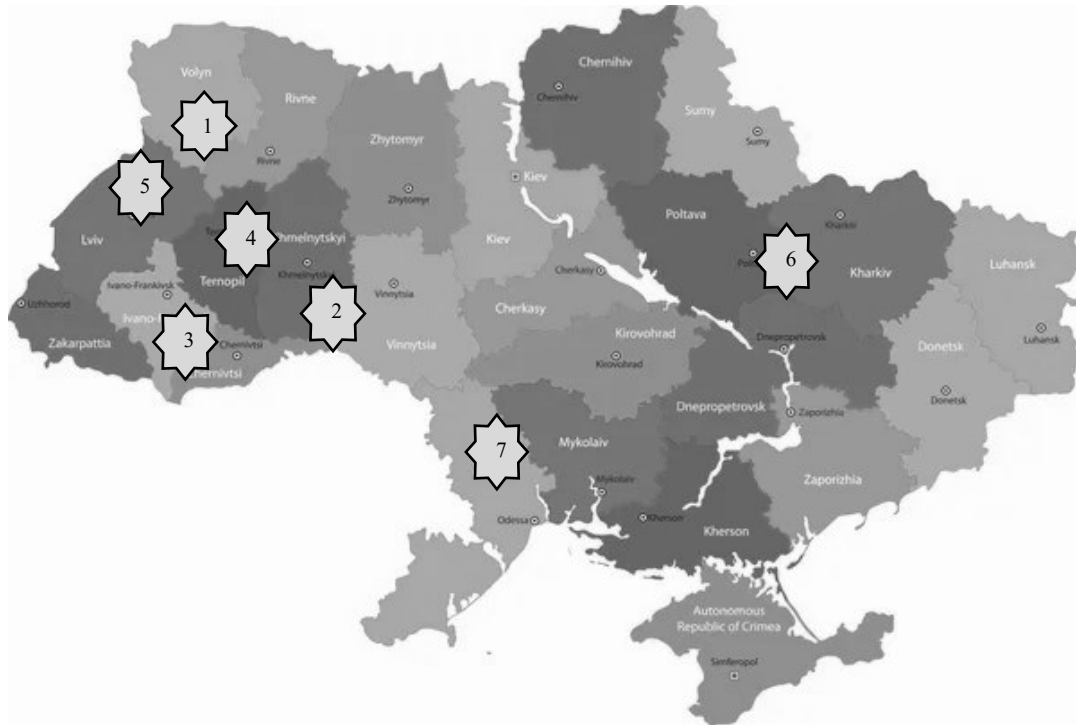


Figure 4. The largest operating tourist clusters in Ukraine

The indicator for calculating the optimal tourist cluster in a two-level cluster analysis based on the above indicators is the highest logarithmic probability. It demonstrates the most optimal size and location of the cluster association of tourist enterprises.

It is worth noting that the proposed analysis demonstrates that the main impact on the

effectiveness of the tourist cluster is carried out by the following indicators: the availability of tourist resources (X1); the number of enterprises in the cluster association (X3) and the location of the cluster (X4).

After a two-level analysis, we can present the optimal tourist clusters (Table 1).

Table 1. Results of two-stage cluster analysis

Western region of Ukraine		
Cluster number and name	Number of participating enterprises	Market share
1. Association “Volyn Tourist Cluster”	2	12 %
2. Tourist cluster “Kamenetz”	18 (Kamenetz-Podolsk fortress, Old Town, museums of the city, hotel and restaurant enterprises, excursion bureaus, travel agencies, consulting and legal agencies)	38 %
3. Cluster of rural tourism “Boykovsky colour”	29 (travel agencies, excursion bureaus, hotels, agricultural establishments, catering establishments)	22 %
4. Tourism cluster “Picturesque Berezhanshchina”	10 (agro-towns and estates of green tourism)	18 %
5. Reichenbach Tourist Cluster	4 (accommodation facilities, travel agencies)	10 %
Total quantity	63	100 %

Southern region of Ukraine		
7. Agro-ecological-recreational cluster "Frumushika-Nova"	14 (accommodation, recreational and recreational facilities, tavern, open-air museum, entertainment facilities)	100 %
Total quantity	14	100 %
Central region of Ukraine		
6. Poltava Regional NGO "Regional Tourist Cluster"	26 (travel agencies, excursion bureaus, hotel and restaurant enterprises, museums, advertising agencies, consulting and consulting agencies, ZVO)	100 %
Total quantity	26	100 %

Table 1 demonstrates the optimal tourist clusters of Ukraine, analysed using a two-level analysis. The table shows that the tourist cluster "Kamenetz" has the highest market coverage – 38% and a fairly large number of participants. This cluster was founded in 2001. This is a certain complex of historical, recreational and cultural objects, whose activities are aimed at expanding and restoring the infrastructure of the region, forming new tourist destinations, increasing the number of hotel and restaurant enterprises and stimulating the development of folk crafts. The study of this cluster demonstrates the constant growth of tourist flows, increasing the efficiency of the participating institutions.

The cluster of rural tourism "Boykovsky color" covers only 22% of the market, but has 29 different enterprises. His specialization is rural green tourism and recreation. This cluster was created with the aim of popularizing rural green tourism in the region, for holding gastrofestivals ("Bulbiany Parrots Boykivsky", "Gifts of the Carpathian Forest" and "Boykovsky Borsch") and attracting more tourists. The formation of tourism clusters is an effective way to develop the tourism industry due to new ways of managing tourism enterprises and increasing their efficiency.

Given the peculiarities of the formation of tourism clusters, their characteristics and role in the development of the tourism industry, it is necessary to create appropriate conditions at the state level for their effective functioning. In this context, public policy should be aimed at ensuring a favorable legal environment, supporting cooperation between enterprises, stimulating innovation processes, developing

infrastructure, and providing state and local incentives to attract investment in the tourism industry.

Conclusions

Tourism clusters are an effective tool for increasing the competitiveness of the tourism industry. The ability to effectively combine the tourism industry and business activities with the traditional way of life and national characteristics of the regional economy ensures a synergistic and multiplier effect. The development of cluster associations provides economic benefits for the regions, in particular, it contributes to employment growth, infrastructure improvement, and increased tourist attractiveness, which has a positive impact on their socio-economic development. Strategic planning of cluster development helps to improve cooperation between market players, enhance the quality of services provided, and strengthen regional competitiveness.

The model of tourism cluster development proposed in the study is comprehensive and takes into account the specific features of regional tourism resources, which makes it flexible for adaptation in different conditions. The implementation of the cluster model will promote the development of regional tourism, increase the competitiveness of the national tourism product and ensure the sustainable development of the tourism industry of Ukraine in the context of global changes.

It has been established that for the successful implementation of the cluster model, state support is needed to develop infrastructure, stimulate cooperation between enterprises,

attract investment and create a favourable legal environment, so further research will be aimed at studying the mechanisms of state support for

tourism clusters, in particular in the context of developing policies to stimulate cooperation between tourism industry entities.

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