

# “Development of the tourism cluster”

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## DEVELOPMENT OF THE TOURISM CLUSTER

### Abstract

Development of cluster structures is a priority for the knowledge and information economy development and an important prerequisite for effective strategic partnership of logistically and geographically related entities of the economic system. The practice of tourism business shows that it is in the conditions of the development of enterprises cluster systems that will be able to form unique competencies, optimally use the resource potential and strategic opportunities, and obtain synergistic and multiplicative economic benefits. Given the situation, tourism clusters development is considered one of the most promising formats of strategic partnership and predetermines the theoretical field of modern scientific research. The need for a constructive rethinking of the mechanisms of economic actors' convergence based on cauterization; definition of preconditions, stages, and processes of formation and development of tourism clusters is an unsolved theoretical and applied problem.

The article is devoted to the procedures identification and interpreting the formation of tourism clusters; systematizing the conditions and factors influencing the clusterization in Ukraine. The work developed recommendations for the successful development of tourism clusters, in particular, the author's vision of identifying structural and functional components of the tourism cluster; establishing interrelations and relationships between participants; definition of tourist attractiveness of the destination for the development of cluster initiatives; algorithmization of the participant's entry to the cluster; developing scenarios for the development of tourism clusters in Ukraine. The results of determining the participants' interaction intensity in the tourism cluster are presented, and the effectiveness of the cluster system development based on a set of economic, social and environmental criteria is evaluated.

**Keywords** tourism, tourist activity actor, integration, integration process, cluster, tourism cluster, cluster development

**JEL Classification** L83, L14, M13

### INTRODUCTION

Global and crisis transformations cause structural and functional changes in the development of both the domestic and world tourism systems. For Ukraine, which has a significant tourism potential, tourism development can become an important factor in macroeconomic growth of the economy.

In Ukraine, the impact of tourism on the economy is negligible (Mazaraki et al., 2013, 2015). This is confirmed by the low share of the employed in the domestic tourism industry, which does not reach 0.1% of the employment, the small contribution of tourism income to the gross domestic product of the country, which fluctuates within 0.5-1%, the incompetence of the national tourism system, the lack of strategic cooperation of tourism business entities, which does not correspond to the potential of tourism development in comparison with countries having similar tourism potential.

Given the increasing competition, reducing the stability and efficiency of economic actors functioning, disproportions to the development of the national tourism system, inconsistencies in economic relations between the tourism market participants, low effectiveness of strategic

interaction between the tourism activity subjects, lack of optimal business models of economic cooperation, there is a need to form the methodological principles of the integration processes development through the tourism clusters formation. Cluster systems will provide high performance; consolidate the efforts of tourism business and government authorities to create a high-quality tourism product to meet current and potential tourist demand (Sokolenko, 2011; Pavlovic et al., 2014; Szekely, 2014).

The model of business organization for territorial and industrial cooperation was first to develop in the middle of XX century (Marchall, 1964), and the term “cluster” was introduced by Porter in the mid-80s of the last century as the most perfect form of achieving the competitive advantage of companies, industries and regions through the pooling of interconnected organizations that function jointly and are characterized by proximity of activities and complement each other (Porter et al., 1980).

A critical analysis of economic knowledge about the cluster development confirmed that these forms of business organization are important from a theoretical and practical perspectives (Porter et al., 1998, 2002; Bergman et al., 1999; Andersson et al., 2004; Ketels et al., 2004; Berg et al., 2001; Sokolenko, 2002; Ashley et al., 2007; Tkachenko, 2007; Tretiak, 2011; Brandenburger et al., 2011; Faizova, 2015).

At the same time, it must be admitted that in theoretical developments, there is no comprehensive approach to studying the tourism clusters formation and to evaluating their functioning efficiency. The lack of a scientifically substantiated basis for the tourism clusters formation causes the exacerbating on existing and the emergence of new imbalances in their effective development.

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## 1. LITERATURE REVIEW

In order to substantiate the theoretical and methodological approaches to the cluster systems formation and development, we propose to summarize the existing achievements regarding the development of clusters and certain aspects of their functioning as economic entities:

- evolutionary aspect – considers the cluster from its evolution standpoint, focuses on the study of its development stages, algorithms for the forming relations between the participants, which is closely related to the economic and social processes in society (Zhansagimova et al., 2013; Reve et al., 2015; Boyko, 2008);
- effective (criterial) – considers cluster as an association of organizations based on obtaining additional benefits – improving efficiency, achieving results (Haken, 1984; Prahalad et al., 2004; Chan Kim, 2004; Gorynia et al., 2007);
- institutional – considers the cluster as a set of market contracts and agreements between independent organizations of a certain tourist destination (Coase et al., 1991; Asaul, 2004);
- resource-technological – emphasizes the need for a combination of resources, accumulation of additional knowledge, joint acquisition of competences by tourism cluster participants as a prerequisite for the additional value creation – a high-quality tourist product (Penrose, 1959; Wernerfelt, 1984; Teece et al., 1997; Kleiner, 2011);
- systemic – investigates the cluster as a system formation with its inherent features, properties and characteristics (Prahalad et al., 1990; Acoof, 2002; Freyer, 2006);
- strategic – defines cluster from the point of view of market advantages formation, the achievement of strategic goals (Porter, 1980);
- management aspect, according to which clusters are specific organizational forms of territorially integrated independent entities management (Pilipenko, 2007; Pavlovic et al., 2014; Faizova et al., 2015);
- structural aspect involves determining the content of the cluster formation from its organizational structure’s standpoint as a set

of organizations and relationships between them (Ferreira et al., 2009; Sokolenko, 2011);

- behavioral – defines a cluster as a set of relationships, situational behavior patterns between individuals and organizations (Freeman et al., 2010; Kaigorodtsev et al., 2013);
- geographic – focuses on the basic premise of cluster formation – the territorial attribute – the geographical community, which defines the type of cluster, the peculiarities of its functioning, its activity specificity (Nueno et al., 1988; Amin, 1999; Storper, 1997; Amosha et al., 2005).

A comparative overview of theoretical and applied achievements testifies to the versatility of developments and invariance of approaches to solving scientific problems of cluster development and confirms the need for a deep comprehension of the theoretical and methodological principles of their functioning. In addition, the following issues remain understudied and controversial: cluster systems formation that limits the possibilities for their practical implementation (Porter, 2002; Nauwelaers, 2003; Kovaleva, 2008; Pokhilchenko, 2008; Ibrahimkhalilova, 2012); integration of cluster-based tourist activities (Tkachenko, 2007; Boyko, 2008; Kachniewska, 2013; Grimstad et al., 2014; Pavlovic et al., 2014; Szekely, 2014; Tubic et al., 2015; Faizova et al., 2015; Bosovska, 2015; Capone, 2016).

The panorama of scientific research does not fully reflect the applied principles of the tourism cluster formation, since it is fragmentary and mainly concerns the problems of the terminological-categorical apparatus formation, the identification of the tourism cluster composition, the peculiarities of the profile service clusters development (transport-logistic, wine, rural tourism, etc.), formation of cluster management policies at the regional level, etc., and has limited argumentation.

Taking into account the above, it is expedient to develop a set of methods that will justify approaches to the tourism clusters formation and development.

The purpose of the study is to substantiate the methodological approaches to the formation of a cluster in tourism; systematization of conditions and factors determining cluster development in Ukraine.

The research methodology is based on the provisions of economic theory, management theory, cluster and synergetic concepts, scientific works on cluster interaction, and presents techniques related to the defining conditions and factors that influence the cluster development, tourist attractiveness of the deployment for the cluster development, the entry of participants to the cluster system, the evaluation of the cluster's functioning efficiency.

This will increase the efficiency of cluster management and accelerate the cluster initiatives implementation in Ukraine's tourist destinations.

## 2. KEY RESEARCH FINDINGS

### 2.1. Prerequisites for cluster formation

The prerequisites for the formation of clusters are defined as the tendencies of structural transformations in the economy, as well as the nature of the internal causes and motives that motivate economic actors to engage in strategic cooperation by clusters.

The theoretical comprehension of the cluster development problem allowed to conclude that there is no clear methodological justification of the preconditions and motivational factors for the clusters development. It is the market factors that make up the content, configuration and motives of connections between economic entities (Radaev, 2003). The further development of this position is based on the concept of strategic management and the justification that the main stimulus for integration is the ability to achieve strategic goals through competitive advantages on the market (Hisrich et al., 2012).

Scientific discourse testifies to the use of a unilateral methodological approach to determining

the preconditions for economic integration, in particular: the ability to accelerate the spread of innovations is the main motive for the integrated formations development (Gordeyev, 2007, p. 24); reduction of transaction costs (Matytsyn, 2002, p. 24); cost optimization (Coase et al., 1991); the increase in resources (Garner et al., 1995); the possibility of obtaining information (Nueno et al., 1988); the need for technology transfer (Sokolenko, 2002; Kachniewska, 2013; Tubic et al., 2015); the need to acquire new knowledge (Pettigrew et al., 2000); creation of synergy (Porter, 2002); modeling of interaction processes among participants within clusters (Pylypenko, 2007); study of integration motives from the lost effect standpoint (Dementiev, 1999; Miller et al., 2013), etc.

A critical analysis of these approaches suggests focusing on the search for internal organizational motives and incentives for integration. However, some scholars build on the need to take into account the influence of external factors as prerequisites for the business entities integration activity, namely: deepening and complicating the social division of labor open new opportunities for coordinating actions within certain activities and territories (Tretyak, 2011); progressive globalization stimulates the creation of unions and capital transfer across countries (Jonker, 2004; Hartono, 2016); technological progress requires a collective approach to the use of resources and competencies for business projects implementation (Salomatina, 2000); the complication of competition provides incentives for joint search for competitive advantages and gaining market leadership positions (Porter, 2011); changing the state's role in the regulation of the economy makes it necessary to develop the coordination, institutional and legal mechanisms for the integration decisions implementation (Sedekov, 2000); the cyclical economic development of the economy contributes to the strengthening of integration activity both for saving costs during periods of economic recession and for obtaining additional resources during economic growth (Nürnbergberger et al., 2009). It should be noted that none of the above factors may be the only sufficient condition for the clusters formation. The need to create a tourism cluster as the optimal model for the integration processes development should be based on a combination of internal and external motivating factors and conditions.

The formation of clusters occurs under the influence of deep permanent transformations at the macroeconomic level, which include:

- deepening the planetary nature of the production and marketing of the tourism product: the interrelations between the subjects of tourism activity become global in nature, business internationalization is intensifying; the volume of international tourist flow in the tourist demand structure is growing; the international division of labor in the tourism sector is deepening; global information and communication technologies are more widely used (Bosovska, 2015; Sardak et al., 2016);
- the need to accumulate the external space of the tourism activity subjects: resources, factors, products, conditions, effects to achieve positive results of management and implementation of potential strategic opportunities;
- growth in the rate of environmental changes, accompanied by turbulence, crisis phenomena and global socio-economic challenges (Obadac, 2013);
- increased competition in the market of tourist services, which is conditioned by the steady increase in the number of travel enterprises, the excess of the tourist supply over demand, lower solvency of domestic consumers (Chuang et al., 2012);
- the influence of regional differentiation due to the increasing unevenness of the development of destinations and regions, the dependence of geographic markets on the structural and industrial parameters of regional development (Szekely, 2010; Reve et al., 2015);
- activation of socio-cultural shifts (transformation of social values, needs, motives, labor mobility growth, social responsibility);
- increased influence of innovations and qualitative potential of labor resources (implementation of the continuous education system, professional standards, increase in expenses for research work, innovations, and education) (Fundeanu, 2015);

- reduction of life cycles of services, products, and enterprises (when the market is saturated, competitive advantages are defined as a result of a rapid reaction to changes in consumer preferences);
- increase in the cost and deficit of nature-recreational resources (reflection of the limited and non-reproduction of natural potential; the effect of the environmental standards and safety systems action);
- increased consumer demand (growth and individualization of needs; rapid change in consumer preferences; strengthening of consumer protection mechanisms) (Kozmenko et al., 2012);
- tendencies of enterprises' transition from rigid integration (absorption, merger) to more flexible forms of management (affiliate, incl. cluster).

The study of the tourism clusters formation taking place at the level of individual subjects (enterprises, organizations) (Porter, 2002; Bosovska, 2015; Pylypenko, 2007; Milner, 2013) has revealed the following factors and conditions: cost capitalization, growth in resource requirements, inefficiency of management systems, the need to improve production, service and management technologies, growing dependence on business partners, consumers, authorities, territorial and logistical disunity of the subjects, information deficit, etc. These factors correlate with the internal motives

and objectives of the subjects' integration: the combination of resources, the full use of the participants' potential, the desire to reduce transaction costs, penetration into new markets, strengthening market power, the use of opportunities for the scale effect, activities expansion, increase in income and profits, lowering the cost of services, expanding the possibilities of financial control, increasing the cost of companies, implementing environmental and social standards, forming corporate brand and image, obtaining synergies as a result of the consolidated activities, etc.

### 3. METHODOLOGICAL APPROACHES TO THE TOURISM CLUSTER FORMATION

Many scientists, depending on the object and subject of scientific research, and most importantly, on its ultimate goal, formed their own vision of the justification of methods for clusters development. Such pluralism results from the complexity of the cluster as a socioeconomic phenomenon and reflects the lack of experience in implementing the mechanisms of cluster development in the practice of domestic actors' tourism activities. This resulted in a large number of scientific opinions (Table 1), which determine the methodological principles for clusters' creation, and evidence of the methodical uncertainty of cluster development.

**Table 1.** Grouping scientific views of stages of cluster formation and development

Scientists	Stages
Porter (2002) Porter et al. (2011)	<ol style="list-style-type: none"> <li>1. Identifying potential cluster companies.</li> <li>2. Establishing links between subjects in value creation chain.</li> <li>3. Establishing horizontal relations between the participants towards suppliers and factors of specialization.</li> <li>4. Identification of infrastructure actors and other institutions as potential cluster participants (to gain knowledge, technologies, capital, information).</li> <li>5. The institutional stage is the formation of loyalty, the interaction of power with the cluster members</li> </ol>
Nauwelaers (2003)	<ol style="list-style-type: none"> <li>1. Knowledge space creation (cooperation, concentration of activities).</li> <li>2. Creating a space of content (cluster strategy development).</li> <li>3. Creating innovation space (innovation)</li> </ol>
Kanishchenko (2007)	<ol style="list-style-type: none"> <li>1. Developing the main trends of potential cluster activity.</li> <li>2. Making a program of cluster formation and development.</li> <li>3. Approval of the program for clusters formation and development at the state level.</li> <li>4. Creating a cluster at the regional level.</li> </ol>
Kovaliova (2008)	<ol style="list-style-type: none"> <li>1. Measures to support the practical development of the cluster</li> <li>1. Preparatory (informing about the initiative, involving participants, justifying the potential of the cluster, coordinating the interests of the participants).</li> <li>2. Researching market conditions for cluster formation and approving institutional and organizational principles of partnership.</li> <li>3. Estimation of intentions and specification of the strategy of cooperation and cluster interaction.</li> <li>4. Development of criteria for the effectiveness of the cluster and approaches to controlling the effectiveness of cluster interaction</li> </ol>

**Table 1 (cont.).** Grouping scientific views of stages of cluster formation and development

Scientists	Stages
Voinarenko (2008)	<ol style="list-style-type: none"> <li>1. Complex analysis of changes in the level of socio-economic development of the region).</li> <li>2. Designing clusters for regional and local planes.</li> <li>3. Creating measures for economic clusters development in the region, the city and the choice of methods and tools for state regulation of development.</li> <li>4. Implementation of measures for economic clusters development.</li> <li>5. Reduction of asymmetry, differentiation, heterogeneity of socio-economic development of regions and cities</li> </ol>
Agafonov (2010)	<ol style="list-style-type: none"> <li>1. Determining preconditions (embrionic).</li> <li>2. Preparation and emergence (established).</li> <li>3. Ensuring growth (mature).</li> <li>4. Further growth or disappearance (declining)</li> </ol>
Denysova (2011)	<ol style="list-style-type: none"> <li>1. Preliminary stage (development of cluster model, mission statement, goals and objectives).</li> <li>2. Analytical stage (analysis of the external environment and development prospects, potential assessment).</li> <li>3. Organizational-economic stage (formation of the organizational council, development of documentation, efficiency evaluation).</li> <li>4. Development stage (signing contracts, implementation of a pilot project, making adjustments)</li> </ol>
Diebrov (2011)	<ol style="list-style-type: none"> <li>1. Preparatory stage (decision on project implementation is taken).</li> <li>2. The main stage (development of a technical and economic project of the cluster and distribution of organizational responsibilities among the participants).</li> <li>3. Final stage (monitoring of the operation results, adjustment, documenting the project)</li> </ol>
Nazarenko (2011)	<ol style="list-style-type: none"> <li>1. The stage of decentralization (formation of the cluster quality based on the critical mass of participants).</li> <li>2. Privatization (quality assurance of a cluster based on strategy development).</li> <li>3. Social (quality control of the cluster, development of interaction technology).</li> <li>4. Institutional program (program-targeted management of the cluster quality based on the pilot projects, their implementation and the achievement of a certain level of autonomy)</li> </ol>
Ibrahimkhalilova (2012)	<ol style="list-style-type: none"> <li>1. Logistic audit of prerequisites for development.</li> <li>2. Development of strategic program of cluster development.</li> <li>3. Development of management mechanism</li> </ol>

The invariance of approaches to the forming cluster systems and the lack of formality, groundlessness and imbalance of the methodological basis of their development, as well as the importance of solving administrative tasks on the basis of the intensification of the development of clusters, determined the relevance of the development of methodological and phraseological recommendations for the creation of tourist clusters.

#### 4. METHODS OF TOURISM ACTIVITY DEVELOPMENT IN THE TOURISM CLUSTER FORMAT

The deepening of the methodological positions of cluster structures management is an important prerequisite for the development of the relationship between the logistically and spatially related subjects of the economic system of the region. The analysis of scientific approaches to structuring the processes of formation of the tourism

cluster allows to interpret it as a voluntary association of tourists interested in joint activity: tourist operators, travel agencies, hotel and restaurant enterprises, entertaining, trade, sports and recreational, transport, excursion organizations, service and providing enterprises, private entrepreneurs, financial organizations, research and educational institutions, local authorities, which cooperate on the basis of strategic partnership and are able to position themselves as a separate entity. The structure of the tourism cluster should include the necessary sectors (groups of enterprises) that will ensure the efficient functioning of the cluster and effectively implement the interrelationships for the formation of a qualitative end tourist product.

The tourism cluster includes: the public sector (state and local authorities, public organizations), the main functional purpose is to create favorable external conditions for the cluster development of tourist destinations based on policy development, creation of the legislative basis for the cluster systems development; provision of conditions for the development of regional tourism in-

frastructure and attraction of investments; stimulation of international cooperation in the field of tourism; a sector for the production and sale of a tourist product, which includes subjects of tourism activity (tourist operators, travel agents, tourist excursions and health resorts, hotel and restaurant enterprises, transport organizations, sports and recreation, leisure, entertaining, cultural enterprises, etc.); providing sector that includes cluster and destination management systems; subjects of transport and tourism infrastructure, communications, service and service enterprises, etc.; auxiliary sector, whose participants are educational institutions, research institutes, labor exchanges, financial, legal institutions, etc.

An important participant in a cluster should be a consumer tourist product. It is the consumer who creates the preconditions and is an incentive and motive for the formation of the tourist cluster and distinguishes it among other types due to the specific characteristics of the tourist product. In addition, the consumer motivates tourists to create tourism clusters in order to meet tourist demand and create a unique high-quality tourist offer.

The approach to the formation and development of the tourism cluster (Figure 1) is an interdependent set of methods, procedures and tasks for the formation, implementation, development and self-regulation of the integrated entity based on the territorial-functional feature (tourism cluster), which operates on the basis of the corresponding internal structure, relations and connections between its participants and the management system, which is a sequence of logically related stages and processes for determining the tourist attractiveness of the destination for the development of the cluster, identifying the development of the tourism cluster, formalizing the entry procedures of the participant in the cluster, selecting the scenario for the development of relations between the parties, determining trend models of interaction intensity of cluster participants, evaluating the cluster's functioning efficiency.

“Identifying the tourist destination” stage is revealed based on the methodology for determining the level

of development and resource possibilities of the tourist destination as a prerequisite for the tourism cluster formation. To identify the destination, its tourist attractiveness should be determined, which is calculated according to formulae 1 and 2.

- identifying the attractiveness of certain kind of tourism for the market:

$$CTA_i = ILTI_i \cdot F, \quad (1)$$

where  $CTA_i$  – aggregate tourist attractiveness of  $i$ -th kind of tourism for the market (international, national and regional),  $ILTI_i$  – complex level of tourist interest for  $i$ -th kind of tourism,  $F$  – distance factor of the destination for the tourist market,  $i$  – the number of types of tourism that are typical of tourist destination.

- definition of tourist attractiveness of the destination:

$$CTA = \sum_{i=1}^i CTA_i, \quad (2)$$

where  $CTA$  – total attractiveness of tourist destination (for all types of tourism) for the market (international, national and regional),  $CTA_i$  – total tourist attractiveness of the  $i$ -th type of tourism for the market (international, national and regional).

To diagnose the attractiveness and potential of regional conditions for the formation of a cluster is an important process. Resource mapping will determine the level of a particular industry development and assess the available resources favorable for cluster development.

The resource mapping model is based on the value chain (VC), which reproduces the successive stages of adding value to the product/service. The map of resources assesses the presence and degree of representation of each factor (labor, raw materials, technology, infrastructure, etc.), as well as the number of enterprises in each VC segment. The indicator, which reflects the availability of resources for the clusters formation, can be the so-called circle of Harvey (Boyko, 2008; Galushkina, 2005). Figure 2 gives an example of constructing a map of resources to assess the attractiveness and potential of tourism cluster formation.



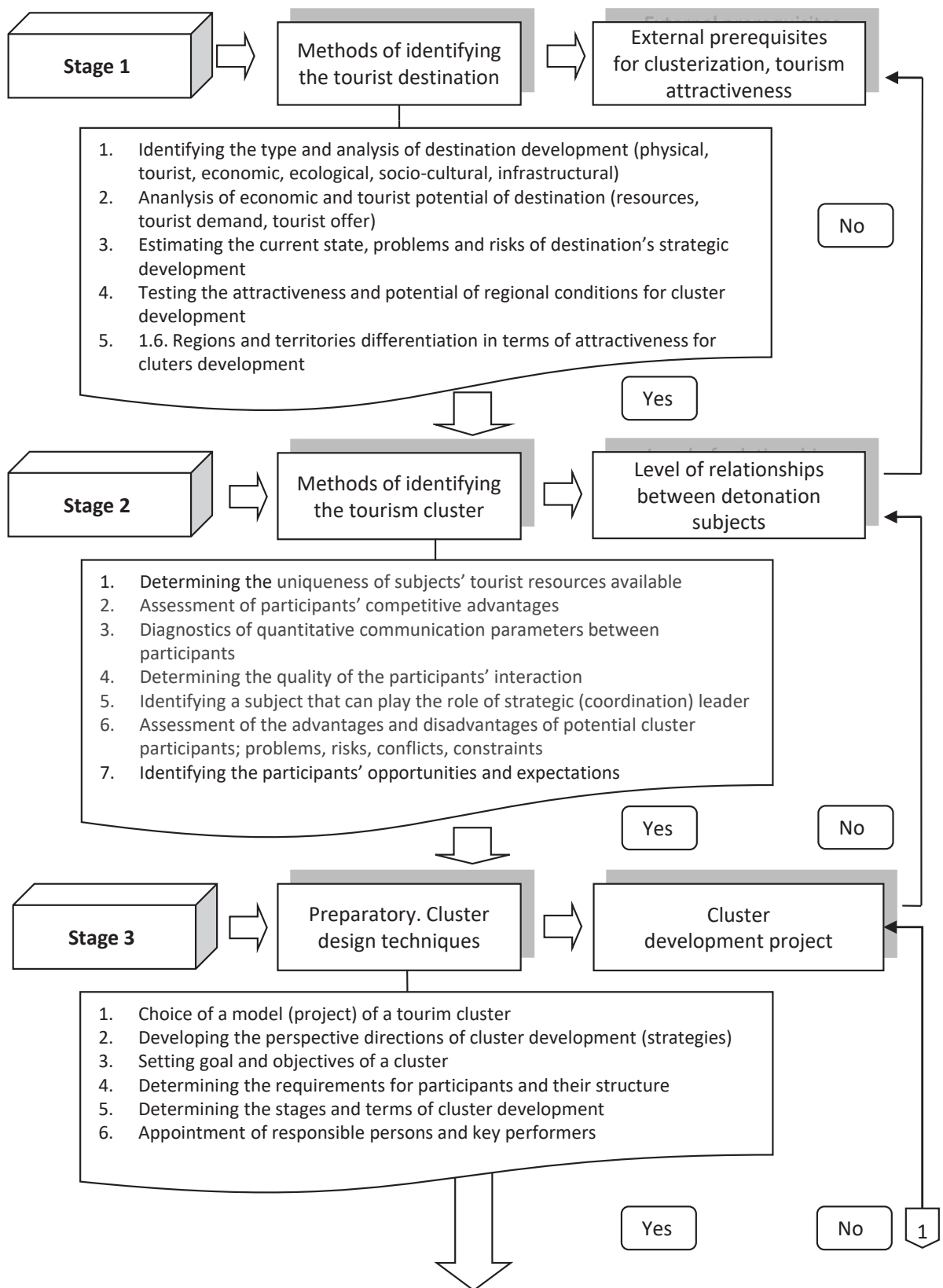
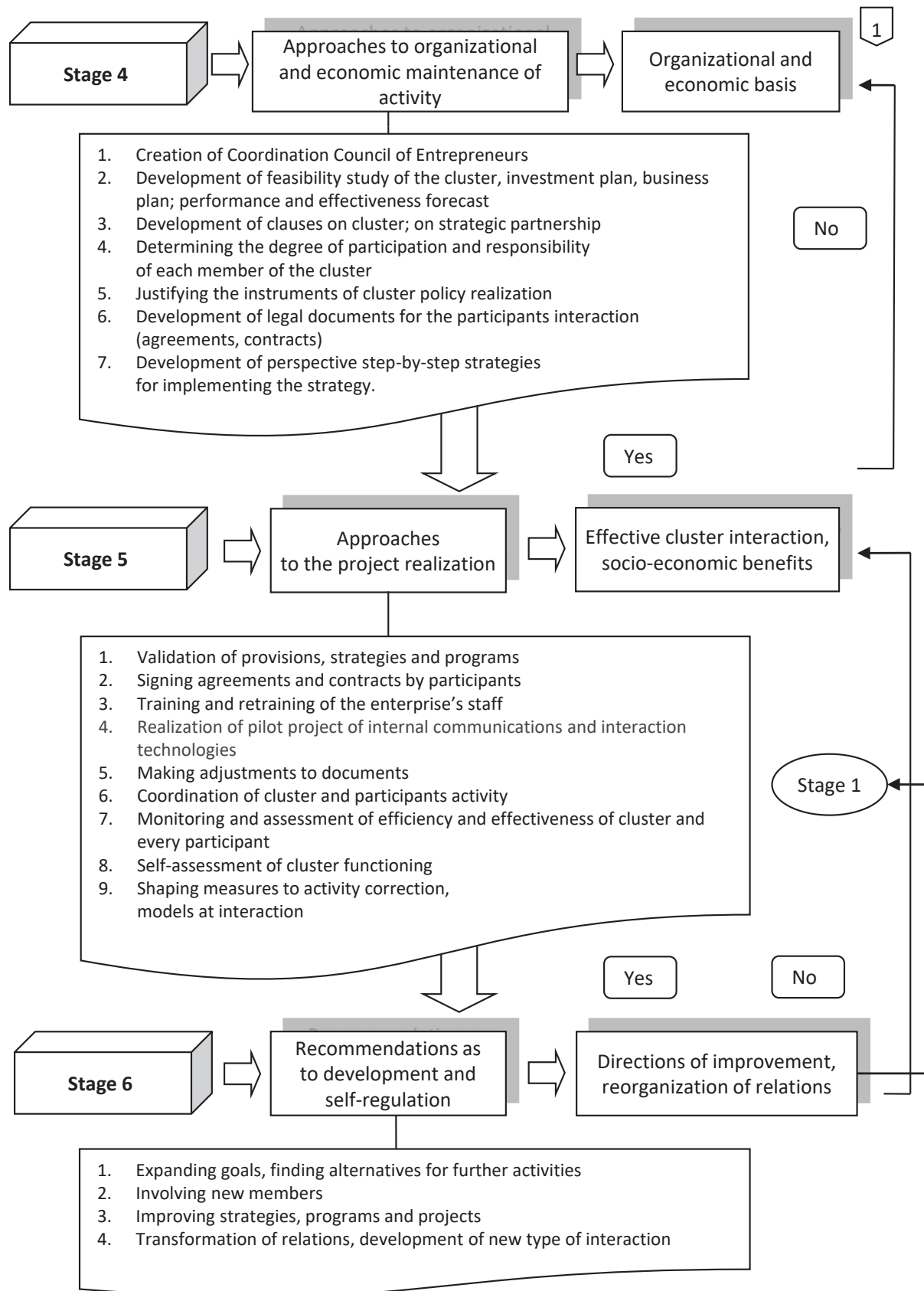


Figure 1 (beginning). Methodology of economic entities' cluster development (beginning)



**Figure 1 (end).** Methodology of economic entities' cluster development

The identification of the tourism cluster development is based on the study of relationship between the participants, the geographic framework, structure and other distinctive characteristics. This will help determine the level of the established relations between the subjects of the distribution, the strength of their interaction, the competitive advantages, the establishment of the leader of the subject (which may be grouped together by other participants), as well as economic substantiation of the advantages and disadvantages of potential organizations cooperation in cluster type.

Preparing the cluster initiative and the defining the type of relations between the participants imply justification of the choice of the tourism cluster model (project) and the perspective directions of its development, the formation of goals and objectives, the definition of requirements for participants and their composition, the development of the stages and timing of the cluster and the appointment of responsible persons and key performers.

The formation of a tourism cluster can take place in the following scenarios: “from up to down” (led by the authorities); “from the bottom up” (led by economic entities); mixed – both scenarios are applied.

The model of cluster entities formation based on the resource-integration mechanism is urgent. The

resource component of the mechanism is based on the attracting additional knowledge, resources and the shaping unique cluster competencies, and integration implies an entrepreneurial inter-organizational, regional, interregional and international association of organizational, managerial and legal factors to create a competitive economy of tourist destination based on cluster entities.

It is important to pay attention to the formation of cluster development (strategy) perspective directions; defining the goals and objectives of the cluster; developing requirements for participants and their composition; shaping stages and terms of cluster creation; the appointment of responsible persons and key executives within the focal point.

The organizational and economic stage is connected with the development of complex mechanisms of participant interaction, documentation and formalization of cluster’s organizational structure, defining the provisions of the participant interaction, their degree of participation and responsibility, division of functions; creating a vertical management that is the basis for the cluster initiative implementation.

To provide management of a tourism cluster based on a structural and functional approach, five structural units are shaped to form and direct managerial influences: attributes, drivers, environment, results and platforms (Bosovska, 2015).

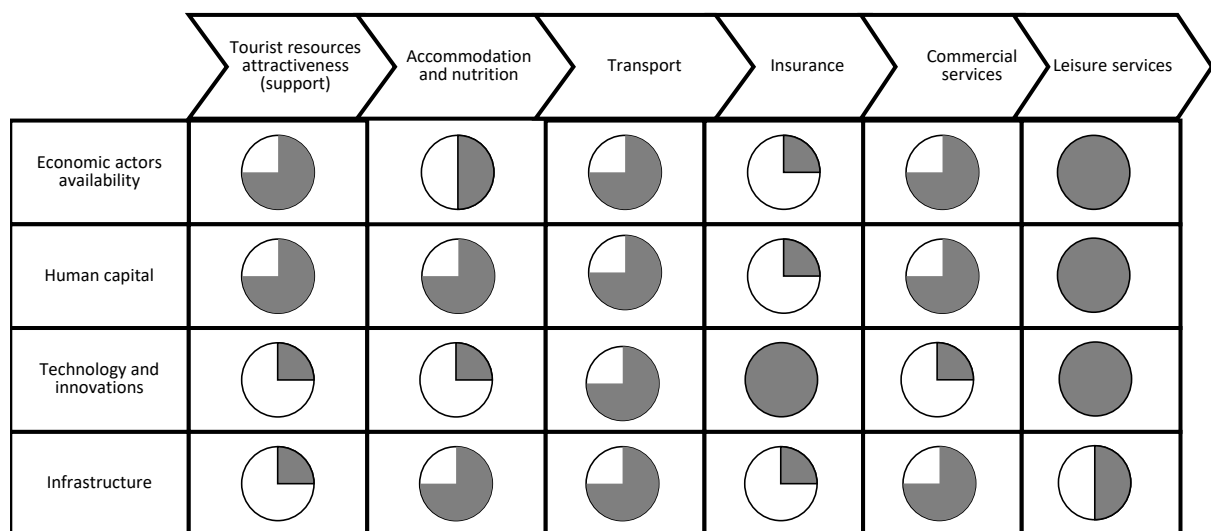
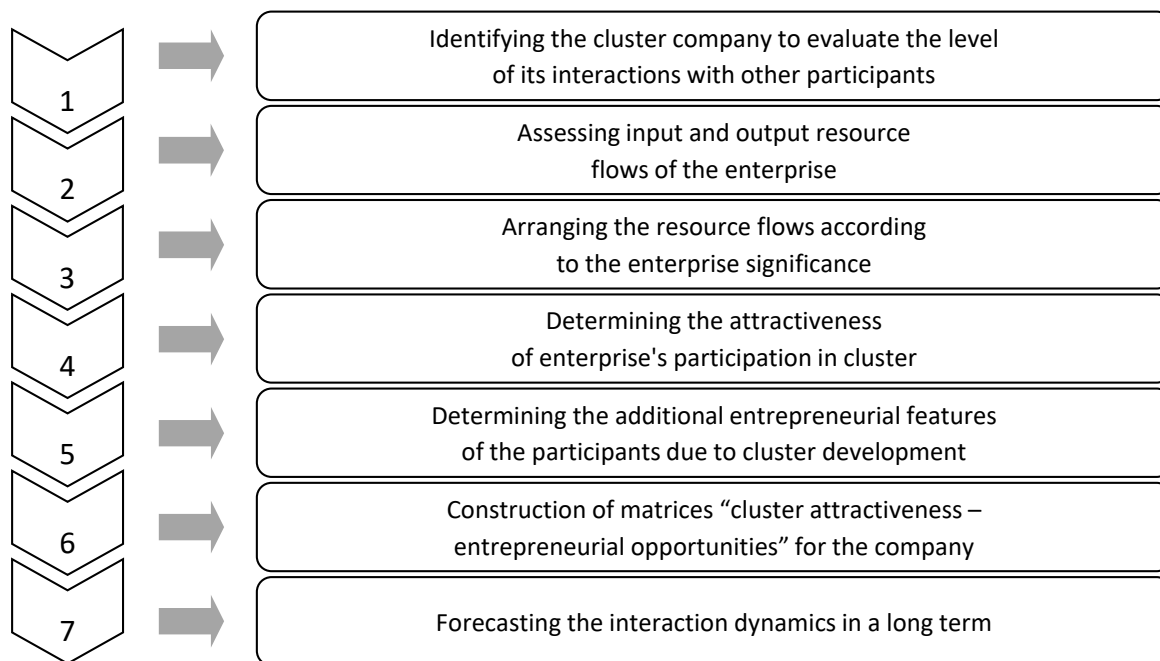


Figure 2. Example of resource mapping for tourism cluster development



**Figure 3.** Algorithm of positioning the enterprise in a tourism cluster

Attributes – qualitative and quantitative composition of the participants that determine its core (tourism product sector) and the basis – providing auxiliary, public sectors. Cluster drivers are elements that form the conditions for cluster activity (assets, knowledge and skills, competencies). The environment of the cluster – indicators and criteria of the external environment (conditions of activity). The results of the cluster activity represent the totality of benefits received by the participants in the process of cooperation. The cluster platform is the elements that are the subject of cluster management (a set of parameters for the integration interaction: the space of knowledge and competencies, the space of trust and interests, the space of strategic capabilities, the space of business processes and the space of innovation).

The implementation of the project is based on the defining mechanisms for joint actions implementation, the approval of contracts and agreements, and the implementation of a pilot project on internal communications and interaction technologies based on coordination, monitoring and evaluating the efficiency and effectiveness of the functioning of the cluster and each participant. Based on control and evaluation of activities and self-assessment of the cluster functioning, adjustments to documents are made.

Recommendations as to development and self-regulation are based on creating conditions for the future development of the cluster by expanding the strategic goals, seeking alternatives for further consolidated activities, attracting new entrants, expanding the scope of activities, reaching new markets (diversifying activities), improving strategies and programs, substantiating new projects. At this stage of the cluster's development, there may be a transformation of relations between the participants and the formation of a new type of interaction.

While implementing the cluster policy, it is necessary to monitor participant interaction based on calculation of the efficient use of resource potential and determining the attractiveness of participation in a tourism cluster for the enterprise. In order to identify the results of the participant interaction, the flows of input and output resources for each participating company should be considered. Taking into account the above, the enterprise positioning algorithm in the cluster is shown in Figure 3.

Testing of this algorithm is possible based on the tourism cluster "Gogol's places" (inter-branch cluster, Poltava region). Based on the tourism enterprise "A" partnership, while forming the cluster

**Table 2.** Indicators of the intensity of tourism enterprise interaction within the framework of participation in the tourism cluster “Gogol’s places”, Poltava region

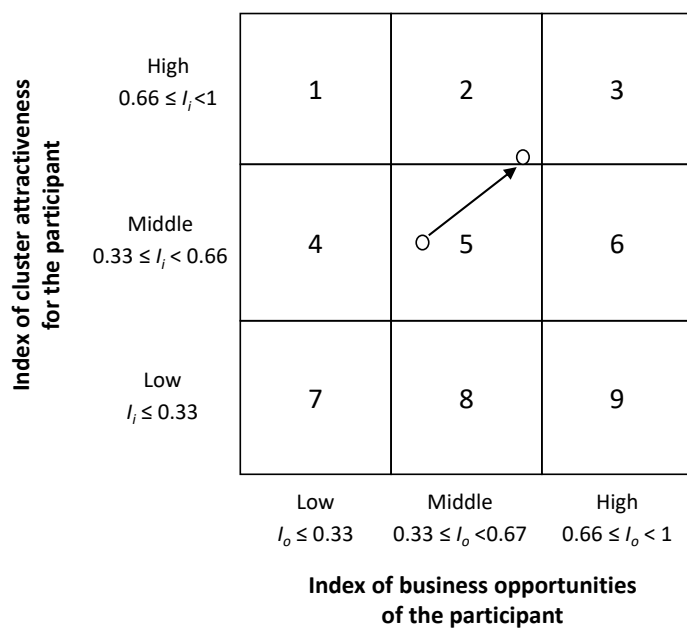
Resource potential indicators	Assessment of resource flows intensity (in coefficients)		
	Years		
	2014	2015	2016
Input flow, incl.	0.64	0.64	0.68
financial	0.2	0.19	0.21
material	0.14	0.15	0.14
personnel	0.01	0.02	0.03
informational	0.17	0.15	0.17
immaterial	0.12	0.12	0.13
Output flow, incl.	0.63	0.58	0.64
financial	0.03	0.04	0.04
material	0	0	0
personnel	0.02	0.02	0.02
informational	0.45	0.40	0.49
immaterial	0.13	0.1	0.09
Balance of input and output flow	0.01	0.06	0.04

interaction and expert evaluation of its input and output flows, an estimation of the interaction intensity was performed (Table 2).

based on the balance of the input and output flow) (Figure 4).

Based on the data obtained and matrix approaches to the organization positioning, we propose to determine the position of the tourism enterprise in the tourism cluster on two indicators – “cluster attractiveness” (determined by the results of the estimating the intensity of the input resource stream) and “business opportunities” (determined

It is clear in the matrix that for the investigated period, the company moved from the quadrant 5 (moderate attractiveness and average level of entrepreneurial capabilities) to quadrant 2 (determined by a more favorable relationship of attractiveness and entrepreneurial capabilities), that is, it is appropriate for the enterprise to perform cluster interaction.



**Figure 4.** The matrix of the interaction intensity of the tourism cluster subjects with the “entrepreneurial opportunities – the attractiveness of the cluster parameters”

We propose to predict the expected changes in the intensity and quality of the participant interaction with other subjects of the cluster using trend models. To do this, we recommend formulating dependency models between the “cluster attractiveness” and “entrepreneurial capabilities”.

The complex positive effect of the cluster structure’s activity is synergistic (Marshall, 1964) and should consist of several components that include ensuring achievement of the target benchmarks of the participants interested in the effectiveness of management influences (coordination of cluster activities) in order to increase the efficiency of using existing resource potential and obtain additional competitive advantages; balance social relations between the authorities, the coordination center, cluster participants and the staff of the participating enterprises, which will contribute to the improvement of internal and external communications.

The indicators and criteria for the effectiveness of cluster management that determine the cluster interaction effects should be: economic (operation profitability, activities profitability, efficiency of labor, material, financial and information resources utilization, cost level, synergy of scale of activity,

synergy of knowledge, resource synergy, financial flows synergy, revenue multiplier, sales multiplier, employment multiplier); social (intensity of service, the frequency of product re-purchase, consumer satisfaction with the tourist product quality, the quality of the relationship between the participants, the level of social corporate responsibility) and environmental (environmental protection, resource-saving use of natural resources, protection and rational use of tourism potential, reduction of negative impact on the surrounding environment; share of environmental protection expenditures in the overall cost estimate, profitability of the costs for environment-oriented measures).

In order to support the functioning of existing cluster formations, public authorities and local self-governments of Ukraine should formulate public-private partnership programs. The levers of state cluster policy should be to remove barriers to innovation, create favorable investment conditions, provide tax advantages, invest in cluster infrastructure, create business incubators, coordinate centers, risk insurance, organize training and retraining systems, develop science ties, organization of exhibitions, fairs, conferences, support of geographic concentration of enterprises, promotion of services export.

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## CONCLUSION

The problematic aspects of the tourism clusters formation are related to a new emphasis on the need to provide an effective model of the tourist cluster, in which the key objects of management influence are attributes of clustering, drivers, environment, results and cluster platform. The conclusions are based on the recommendations for determining the tourist attractiveness of the destination in the format of the cluster development, identifying the indicators of the tourism cluster, formalizing the entry procedures, choosing a scenario for the relations development between the participants, determining the trend models of the intensity of the cluster participants’ interaction.

The authors obtained results on the estimation of the cluster functioning efficiency in aggregate for economic, social and ecological groups of indicators.

In the hierarchical plane of the business environment, tourism clusters can create new opportunities for the development of tourism activity actors; provide multiplicative and synergistic effects, increase competitive advantages, dynamic and creep-resisting functioning of cluster participants. At the macro level, tourism clusters will stimulate the tourism development; increase tourist destinations competitiveness.

Further discussions in the scientific field on the clusters development should be aimed at forming a concept of cluster systems management in tourism and the introduction of public-private partnership programs in tourism.

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