

## STUDYING SPECIALIZATION AS A FACTOR IN TOURISM CLUSTER DEVELOPMENT

Raisa M. Ivanova<sup>1</sup>  
 Olga V. Skrobotova<sup>2</sup>  
 Irina E. Polyakova<sup>3</sup>  
 Galina Yu. Karaseva<sup>4</sup>

1. Bunin Yelets State University
2. Bunin Yelets State University
3. Bunin Yelets State University
4. Bunin Yelets State University

**Abstract:** The importance of this research paper is that a significant number of tourism clusters established on the territory of the Russian Federation are not always successful as catalysts for the development of the tourism sector. This study aims to determine methods for conducting research on specialization as a factor in tourism cluster development, taking into consideration the existing research approaches and research findings in this area. The systematic, structural, functional and analysis methods were used, along with a general theoretic approach to researching tourism cluster development. The selected methods made it possible to identify approaches to forming research methodologies for studying tourism cluster specialization. Based on the presented approaches to examining specialization as a factor in the development of tourism clusters, it is possible to choose research methods and the coherence of research activities in this area. The methodology and coherence of research into tourism clusters was determined with a view to detect key development indicators for tourism development and various tourism-related processes taking place on the territory of a tourism cluster. The research findings will provide necessary tools and mechanisms for developing tourism clusters based on the diversification of their specialization. The findings of the study are directed at increasing the effectiveness of decisions taken to assess and forecast tourism cluster development and can also be of use to all those interested in this field. The materials of the present study can be used by regional administrations to monitor and make effective management decisions aimed at improving regional tourism development programs. Experts and scholars could also benefit from the findings of this study to analyze and develop projections and to promote topic-related methodological approaches. The article will be of practical value to specialists in tourism planning, tourism administration and tourism enterprise managers.

**Keywords:** tourism cluster, cooperation, specialization, diversification of specialization, tourism innovations.

### 1. INTRODUCTION

The current state of tourism in the Russian Federation requires the adoption of innovative approaches to its development [20; 25]. To deal with the main challenges for the future, including “increased global competition involving not only traditional product, capital, technology and workforce markets, but also national management, innovation support and human development systems” [20], the main focus has now shifted to “a new

model of the spatial development of the Russian economy, which includes the following: the establishment of new socio-economic development centers based on a developed energy and transport infrastructure and the promotion of enterprise cluster development improving the competitive edge of territories” [20]. The Russian Federal Target Program on the Development of Internal and Inbound Tourism in the Russian Federation for 2011-2018 has become one of such mechanisms for tourism development. Implementation of the Program’s objectives is based on the cluster approach. In tourism, the notion of ‘cluster’ refers to “a group of enterprises and organization within a limited area which develop, produce, promote and sell tourism products and to other activities related to tourism and recreational services” [19].

Currently, the cluster approach has become one of the leading tourism development approaches in the Russian Federation. Many regions regard tourism as a sector or a cross-cutting sector that is propitious for economic growth. Implementation of the Federal Target Program is to be completed by 2018 and extended to 2025. In this regard, tourism cluster development has already produced some visible outcomes in Russian regions for the further development of a competitive tourism sector. Tourism clusters meeting the requirements of the Federal Target Program have been set up in the following Russian regions: Yaroslavl, Ivanovo, Ryazan, Rostov, Pskov, Lipetsk, Kemerovo, Tver and Vologda Oblasts; Altai, Krasnodar and Stavropol Krai; the Republics of Buryatia, Kabardino-Balkaria, Adygea and some other subjects of the Russian Federation. Fifty-three tourism clusters were expected to be set up and to become fully operational by 2018, with forty-four of them being created and funded through the federal budget. According to the Russian Court of Audit, “only two out of forty-four tourism and recreational clusters have been completed as of 1 October 2017. These include the Gem Ring of the Urals and the Kezenoy-Am. As of 1 October 2017, the technical preparedness of the remaining forty-two tourism clusters was as follows: up to 50% (12 clusters), from 50% to 80% (20 clusters) and over 80% (10 clusters). At the same time, construction of six clusters located in five regions (the Republics of Buryatia and Tuva, Vologda, Kostroma and Kemerovo Oblasts) has not been completed by the deadline established by the Federal Target Program (2014-2016). Their technical preparedness ranged from 30% to 77% as of 1 October 2017” [18]. The above data reflect the challenge of the slow and inconsistent development of tourism clusters in Russian regions without, however, providing insights into its reasons, which require a separate study.

The range of current research studies into cluster development, including in the tourism sector, is quite broad. Modern Russian research studies provide overviews on international research into the cluster development of economy, including the following authors: M. Alekhin and A. Kochemasov [2]; Yu. Lebedinskaya [15]; S. Veretekhina, O. Shinkareva, J. Kozhayev, N. Telepchinkova, E. Kuznetsova and N. Zaytseva [40]; O. Bakumenko [5, 6]; N. Danilenko, N. Rubtsova [8]; I. Alkhimovich, N. Naydenov [3]; A. Larionova E. Dzhandhugazova, L. Chernikova, A. Chudnovsky and G. Faizova [32]. Of great importance are the works on the cluster development theory by M. Porter [37], M. Monford [36], P. Braunerhjelm and M. Feldman [28], R. Estrella [30], E. Mariussen [33], Karen G. Mills, Andrew Reamer, and Elisabeth B. Reynolds [35]. Porter gave the following definition of a ‘cluster’: “A cluster is a group of geographically neighboring, interconnected companies and related to them organizations operating in a particular area and complementary to each other” [37, p. 123].

Russian research has focused on tourism cluster development in the early 21<sup>st</sup> century. The theoretical and methodological approaches to understanding tourism clusters, to studying their structure and modalities of operations are well represented. As

an example, the following Russian researchers have examined the structure and general modalities of operation of tourism clusters: A. Aleksandrova [1], V. Rudchenko [22], E. Kropinova and A. Mitrofanova [13], O. Afanasyev [4], L. Ulyanchenko, M. Vinogradova and I. Gladskaya [25], G. Galiullina, Sh. Galimova and L. Shabanova [7] and N. Larionova [14]. Different methods for assessing the effectiveness of clusters are discussed in the research studies by M. Rimmer, A. Kasatov and N. Matiyenko [21], T. Kovaleva [11], Yu. Morozova [16], D. Rutko [23] and L. Fedorets [27], among others. Specialization as a factor in tourism cluster development has not yet become the subject of targeted research into cluster development, although a number of scholars do conduct research in this area. Specialization of tourism clusters is almost always regarded as a factor depending on the resourcing of tourism development in a specific area, notably, on the current state of natural, cultural and historical resources. In our view, researchers underestimate specialization of tourism clusters as a factor influenced by intra-cluster cooperation.

Experience has shown that tourism clusters, which have been set up in the regions of the Russian Federation within the framework of the Federal Target Program, show diversity in their levels of development. The integral assessment carried out by O. Afanasyev makes it possible to identify four types of clusters listed in the Federal Target Program. “Type 1: Clusters with a low organizational potential having no well-known historic or cultural landmarks that would be of interest to potential consumers. As a rule, these industry-specific and target-oriented emerging clusters or pre-clusters have extremely low spatial and information accessibility and account for only 18 per cent of the total number of clusters listed in the Federal Target Program. Type 2: Clusters with an average organizational potential having some attractive elements for potential consumers. They have average spatial and information accessibility. Their proximity to major tourism distribution channels increases the growth potential of these newly created, target-oriented and emerging clusters. They constitute 33 per cent of the total number of clusters listed in the Federal Target Program. Type 3: Clusters with a high organizational potential having either landmarks that are attractive for potential consumers or a powerful artificial attractor. They have medium-high spatial and information accessibility. These newly created or developing, within a particular period of time, clusters have high growth potential. They account, however, for a mere 30 per cent of the total number of clusters listed in the Federal Target Program. Type 4: Clusters with an extremely high organizational potential featuring, as a rule, major historic landmarks or a powerful artificial attractor. They have high spatial and information accessibility and considerable growth potential. These clusters have been developing for a certain period of time and represent approximately 19 per cent of the total number of clusters listed in the Federal Target Program” [4, pp. 5-6, 8]. These data is indicative of the low competitiveness of Russian tourism clusters. There are a number of reasons for achieving the intended objectives, among which difficulties in identifying tourism cluster specialization.

Supposedly, successful tourism cluster development is related to the use of various mechanisms and tools, including the diversification of tourism clusters’ specialization. Insufficient attention is paid to this issue both in practice and in theory. Tourism cluster specialization is based on the effective use of tourism resources and the target-oriented development of tourism potential, which is also connected to cluster development models. In terms of creating new tourism dimensions and of developing the existing ones, a significant number of tourism clusters existing in the Russian Federation do not always appear to be successful in acting as catalysts for tourism development, hence the relevance of this study. Developing research techniques for examining tourism clusters’

specialization as a means to increase their efficiency and to handle regional socio-economic issues is necessary both to develop the existing research approaches and to promote new areas of research in tourism cluster development in the Russian Federation.

This study aims to determine methods for conducting research on specialization as a factor in tourism cluster development, taking into consideration the existing research approaches and research findings in this area. Current research on tourism cluster development in Russia's Central Black Earth Economic Region highlights the relevance of the present study. Research findings in this economic region may be of practical use to the regions of the Russian Federation that adopt the same approach. Examining specialization as a factor in tourism cluster development capable of affecting their effectiveness emphasizes the need for methodological approaches used to define methods, sequence and tools for conducting research in the regions as well as the processing and analysis of the data received. The definition of this methodology draws on the study of research undertaken in this area taking into consideration the adoption of our own approaches determined by the objectives of research.

## 2. METHODS AND MATERIALS

Specific areas of research determine the methodology for investigating and assessing the tourism cluster development processes and results. The Russian Federal Target Program on the Development of Internal and Inbound Tourism in the Russian Federation for 2011-2018 specifies two types of tourism clusters that are being developed in Russia with the support of the Program, namely, tourism/recreation and automobile tourism. This typology may well be interpreted as a definition, albeit a rather general one, of tourism cluster specialization. "Tourism/recreation clusters are a group of interrelated recreational and cultural facilities such as collective accommodation, catering and other relevant services featuring all required infrastructure. Automobile tourism clusters comprise enterprises and organizations providing tourism and related mutually complementary services that create the normal travelling environment for automobile tourists. Automobile tourism cluster facilities are planned to be set up on federal highways with the heaviest traffic and close to popular tourist locations, including historic and cultural landmarks, nature reserves and other tourist-oriented locations. The network pattern of automobile tourism clusters will provide a convenient basis for arranging itineraries for auto-tourists and will ensure high standards of tourism services" [19]. Consequently, automobile tourism clusters specialize in activities directed at meeting the needs of transit tourists. Tourism/recreation clusters are more varied in terms of specialization and are directed at satisfying the tourist's needs relating to their individual objectives and types of recreational activities. The Program also indicates that each of the clusters is "an extended investment project comprising a number of projects that are functionally, organizationally and financially interrelated..." [19]. In our view, one of the major factors in cluster specialization is precisely the functional relationship between projects.

To successfully manage tourism cluster development in the Russian Federation, it is necessary to conduct research into cluster development processes and detect factors and mechanisms that could increase the effectiveness of these clusters. Such research is only possible, taking into consideration the experience and results of the study of clusters both in Russia and internationally. Almost all of the research studies focusing on industrial clusters look at cluster specialization in the context of their relationship with industry. As an example, attention is given to clusters related to information technology,

instrument engineering, radio electronics, means of communication and telecommunication, pharmaceuticals and more. This paper regards tourism clusters as unique systems and tourism cluster specialization as industry specialization [39]. Tourism cluster specialization, however, is complex, which is attributable to tourism's unique features as an industry. When investigating tourism clusters, it is necessary to start from the premise that, unlike the production of goods in the productive sphere, tourism products result from interactions between business entities belonging to various economic sectors. This is why many researchers have traditionally defined tourism as a complex cross-cutting sector, which includes tour operators, collective and individual accommodation and catering facilities, museums and production companies, among others.

In the regions of the Russian Federation, tourism is often connected to its focus on a relatively narrow segment of consumers, which is due to the specificities of logistics and to the need to produce new products with a view to win market share. Traditionally, Russian regions specialize in local tourist products intended for the local market segment and produced outside big companies, which are largely non-existent there. The vast majority of regional tourism service providers are not even small but micro enterprises. In this context, it is important to understand in what ways tourism cluster specialization could affect competitiveness and the creation of competitive advantages in the tourism sector.

Currently, a widespread approach to the promotion of competition in the European Union is the so-called 'smart specialization'. Karayannis and Grigorudis point out that economic development strategies based on smart specialization are devised taking into consideration the advantages offered by regions rather than the country as a whole. "Different regions face different problems and have unique possibilities, which the 'smart specialization' strategy should take into account" [29, p. 63]. At the same time, Europeans themselves heavily stress the impossibility and even the 'hazards' of copying attractive ideas implemented in other regions, notably "if the region, which is considering a specific strategy, is significantly different from the one in which the borrowed strategy has been initially devised. The idea is that the regional strategy should be based on the advantages and potential of a specific region. The 'smart specialization' strategy can draw on existing strategies only insofar as they have been developed for this regions and their relevance can be proven empirically" [34].

### 3. RESULTS

Research on tourism cluster's specialization using the case of Russia's Central Black Earth Economic Region is impossible without considering the initial development environment of tourism clusters. The examined economic regions includes Belgorod, Voronezh, Kursk, Lipetsk and Tambov Oblasts. The cluster approach to tourism development based on the public-private partnership is being developed in Belgorod, Lipetsk and Tambov Oblasts. Belgorod Oblast has initiated the creation of a tourism and recreation cluster (2014), and Lipetsk Oblast has been developing, since 2012, the state-funded Zadonshchina Automobile Tourism Cluster and the Yelets Tourism and Recreation Cluster as part of the public-private partnership model. Furthermore, the Shukhovsky and Dobry Tourism and Recreation Clusters as well as the Ranenburg Automobile Tourism Cluster have been developing since 2013 through regional funding programs and investor funds. In 2014, Tambov Oblast initiated the Rakhmaninovsky Tourism and Recreation Cluster Project. The clusters' impact on regional tourism development can be observed

from a number of objective indicators such as the distribution of tourism flows across the region.

Subject of the RF	2014		2015		2016	
	Targets	Actual figures	Targets	Actual figures	Targets	Actual figures
Belgorod Oblast	167.7	210.939	176.2	151.5	185.1	186.8
Lipetsk Oblast	341.7	153.88	496.5	145.3	648.4	172.4
Tambov Oblast	198.0	198.201	221.0	166.7	239.0	137.6

#### Announced specialization of clusters being created in the Central Black Earth Economic Region

#	Cluster	Specialization
1	Yelets Tourism and Recreation Cluster (Lipetsk Oblast)	culture
2	Zadonshchina Automobile Tourism Cluster (Lipetsk Oblast)	religion and pilgrimage culture
3	Rakhmaninovsky Tourism and Recreation Cluster (Tambov Oblast)	culture religion and pilgrimage
4	Seversky Donets Tourism and Recreation Cluster (Belgorod Oblast)	ethnography ecology
5	Shukhovsky Tourism and Recreation Cluster (Lipetsk Oblast)	culture
6	Dobry Tourism and Recreation Cluster (Lipetsk Oblast)	countryside
7	Ranenburg Automobile Tourism Cluster (Lipetsk Oblast)	culture
8	Yelets Special Regional Economic (Tourism and Recreation) Zone (Lipetsk Oblast)	culture
9	Zadonshchina Special Regional Economic (Tourism and Recreation) Zone (Lipetsk Oblast)	religion and pilgrimage culture

Based on the above, attention should be given not only to the tourism clusters established as part of the Federal Target Program, but also to the areas developed as clusters and funded through regional programs, as it is the case with Lipetsk and Belgorod Oblasts. In the first place, research on tourism cluster specialization should define the availability and the extent to which a cluster has been developed. It is necessary to start from the premise that a full-scale cluster has two common features (geographical concentration and general field of activity) and three specific ones that are independent of one another (the critical mass of cluster participants, a high level of coherence, both internal and external, between participants and innovative activities) [10, p. 21].

In detecting a cluster, it makes sense to adopt the three-stage methodological approach developed by M. Porter: "1) The composition of a cluster is determined: first of all, its core – a group of similar business units or one large one – is identified, and technological chains of related lower- and higher-ranking enterprises are lined up vertically. Then enterprises, which go through general channels or create additional products or services, are determined horizontally in relation to the core. Other horizontal

chains are built using common technologies, common supplies and common production factors. Experience has shown that identifying the boundaries of a cluster is one of the most difficult challenges, which always reflects the objectives and conceptual approach of this researcher. 2) Group formation are detected inside the cluster, with special attention given to organizations providing it with specialized skills, technologies, information, capital and infrastructure, i.e. everything that is required to obtain competitive advantages. 3) Government structures and other legislatures affecting the cluster participants' behavior are identified (basic rules, standards and incentives on which the nature and intensity of local competition depend)" [37, p. 126].

In the tourism sector, the above-mentioned three stages are distributed as follows. First, the core of the tourism cluster is a tour operator company or a pool of tour operator companies generating tourist products, and technological chains of related are lined up vertically. Then enterprises, which go through general channels or create additional products or services, are determined horizontally in relation to the core. Finally, other horizontal chains are built using common technologies, common supplies and common production factors. The boundaries of the tourism cluster are determined based on the data obtained. Second, group formations of the tourism cluster are identified, notably tourism-related scientific and educational institutions that train personnel and generate tourism technology, information, capital and infrastructure. Third, federal, regional and local tourism management bodies are determined, the legal framework and incentives, on which the nature and intensity of intra-cluster competition depends, are examined.

Many researchers define the cluster's boundaries as a serious challenge. Among factors in deciding whether an organization is part of the regional cluster, are the conformity of its field of activity to the cluster's specialization as well as the organization's geographical location in this region. In other words, a tourism cluster may include enterprises, for which tourism is not a major field of activity, for instance, medical companies, educational institutions and sports centers, and so on. Some researchers take into consideration the distances that company representatives and enterprises are "ready to cover to maintain business and informal, personal contacts and employers to commute to work in cluster enterprises" [2].

Of major importance for the study of cluster specialization is the nature of a cluster strategy, which likewise applies to tourism clusters. As an example, Efimychev and Zakharov [9] propose the following seven characteristics, whose combinations determine these or those cluster strategies.

- Geographical: setting up spatial economic clusters ranging from strictly local ones (for instance, gardening in the Netherlands) to really global ones (i.e. an aero-spatial cluster);
- Horizontal: several branches/sectors can be part of a larger cluster (i.e. the mega-cluster system in the Dutch economy);
- Vertical: clusters may feature crosscutting stages of the production process. It matter which ones of the network participants are innovation initiators and implementers within the cluster;
- Lateral: different sectors merge together to create cost-efficient cluster due to its large scale, which result in new combinations (for instance, a multimedia cluster);
- Technological: a combination of branches based on the same technology (for example, a biotechnological cluster);
- Focus-oriented: a cluster of firms centered round the same center (an enterprise, a research institute or an educational institution);

- High quality: the point here is not only whether but also how enterprises collaborate. Networks do not always automatically foster the innovation development process. It happens that, on the contrary, networks suppress innovation processes and promote protective behaviors. While the relationship with suppliers may stimulate innovation processes, it may also be used to shift the costs to partners and to affect them financially. In the latter case, networks are neither stable not stimulating” [9, p 129].

In her research on cluster strategies, O. Kostenko highlights that “the element homogeneity of clusters ensures a technologically closed network structure, complete with inbuilt internal stabilizers, which combine its elements into a single economic organism and maintain them in a territorially-bounded cluster environment. The same stabilizers promote the mobility of an innovative cluster’s corporate structure, in other terms, its response to changes in the external environment, and the mobility of its boundaries, i.e. free entrance to and exit from the cluster” [9, p. 641]. Consequently, in determining the boundaries of a tourism cluster, one must take into account their possible mobility, given that entrance to and the exit from the cluster is free. The Federal Target Program based on the public-private partnership lists specific tourism clusters with clearly defined geographical boundaries and the conditions laid down by the Russian state for the joining of participants/investors and their withdrawal from the cluster. On the territory of tourism clusters, however, there are situations in which enterprises that do not participate in the public-private partnership actually join the cluster. The study of cluster specialization should also take into account the clusters’ actual state and boundaries.

When examining the specialization of tourism clusters, created both independently and as part of the public-private partnership, their state of development should also be considered. At present, research into clusters as such usually mentions economic agglomerations, proto-clusters or potential clusters and clusters [10]. As for tourism clusters, researchers also refer to various stages of their lifecycle. For example, Kropinova and Mitrofanova highlight the “pre-cluster, characterized by the formation of a regional tourism market when tourist agencies, accommodation, catering and entertainment enterprises emerge in a region. This stage is marked by a conflict-and-defensive development of tourism facilities. The pre-cluster stage is followed by the emerging cluster stage, when tourism businesses start establishing cooperating ties with each other after realizing the importance of partnerships in order to increase their own competitiveness and to ensure their survival in a market economy. The following stage is the developing cluster, characterized by emerging internal and external communication. Successful joint activities of tourism enterprises results in the increased significance of this sphere in the regional economy and, consequently, in growing interest on the part of administrations, businesses and investors. As a result, a body is formed for coordination and further promotion of the given cluster, which involves all parties concerned. The final stages are represented by the mature cluster featuring highly coherent internal ties and the waning cluster, in which internal ties are weakened and disintegrated” [13, p. 43]. Research into tourism cluster specialization should comprise the stages of the tourism cluster’s lifecycle in the following way: the proto-cluster (the pre-cluster, the emerging cluster, the developing cluster and the waning cluster) and the cluster as such (the mature cluster).

An economic agglomeration, which is “a combination of geographically concentrated organizations united by a common field of activity” [10, p. 23], is regarded as a mandatory requirement for the formation of proto-clusters and clusters.



Investigation of the tourism clusters of a specific region should include the presence of either an economic agglomeration or a proto-cluster or a cluster and identify the current and announced specializations of this formation. Research into regional cluster specialization should be correlated with the tourism development strategy in a region with a thorough understanding of how the cluster development strategy relates to the region's specific aspects instead of being a mere imitation of someone else's attractive ideas.

Some researchers note that 'smart specialization' is aimed at activities rather than sectors or firms [31]. In case of tourism clusters, it is necessary to not only detect the types of tourism products, but also regard the latter as the result of activities and interaction between enterprises that are representative of different sectors. In addition, further research is needed to investigate activities directed at the creation and support of tourism-related innovative technologies as well as entrepreneurial efforts to master new fields of activity. In this regard, overlooked business opportunities in tourism are yet to be identified. In terms of tourism cluster development, it is equally important to explore the population's interest in tourism-related business activity. To describe ongoing business activity, research is relevant on both the potential and tourism-related business failures on the territory of a cluster, followed by an analysis of their causes and impact on tourism activity trends in the given area. The choice of parameters describing business activity in the tourism sector on the territory of a tourism cluster should take into account more than the traditional parameters such as the opportunities, prestige and popularity of tourism entrepreneurship. Special attention should be given to the skills and professional competence of those who show interest in entrepreneurship and attends colleges, universities and other educational institutions. Relating these parameters to tourism activities will facilitate the detection of possible development trends in tourism cluster specialization.

The state and diversification of tourist products deserves special attention, along with the diversification of types of tourism-related business activity on the territory of a tourism cluster. Identifying the nature of intra-cluster cooperation in creating tourism products is essential for the study of cluster specialization in terms of stimulating activity in exploring various tourism activities. In terms of tourism cluster specialization, particular attention should be paid to the study of the professional training and advanced training system and of professional self-fulfillment or human capital development. Exploring the opportunity of including other sectors into the tourism sector, such as agriculture and industry, also needs careful scrutiny. Research on business activity using statistical and sociological approaches will help identify the current nature and development potential of tourism-related entrepreneurial activity on the cluster's territory.

Research studies dealing with specialization point to the strategic significance of new knowledge production. Research and educational institutions, which not only produce new knowledge, but also ensure knowledge transmission to the personnel, occupy a prominent place in the core of various clusters, including tourism clusters. Knowledge production and dissemination, however, is a very complicated process involving the State, the production industry and the society, along with research and educational institutions. A number of researchers believe that the wide range of those interested in producing and disseminating new knowledge "promotes co-competition (collaboration and competition), co-specialization and co-evolution in creating, distributing and using resources which, in their turn, result in the emergence of modalities such as innovation networks and knowledge clusters. What is meant by the

arbitrary production of strategic knowledge is the ability to disseminate and use this or that information beyond its original subject area” [29; 38; 24]. The number of research organizations carrying out research projects in the tourism sector and the range of tourism-related research areas are both important for a thorough investigation of tourism cluster specialization. A quantitative analysis of innovative developments implemented into the tourism sector can provide insights into innovation trends among tourism enterprises and, consequently, into the possible diversification of specialization.

In our view, the study of cluster specialization should be conducted, taking into consideration collective interaction and knowledge exchange as part of certain subsystems. These include tourism (enterprises and private entrepreneurs involved, to any extent, in the production of products and provision of services); science and education (academic institutions conducting research on the tourism sector and educational institutions involved in training and re-training of personnel in the tourism sector); management system (regional tourism management system); civil society based on the mass media and culture, both of which produce two forms of capital, the social (traditional cultural values) and the information ones (television, the Internet, newspapers, among others).

Tourism cluster specialization is closely linked to specific features of tourism resources and their use in tourism product and service development. The material for analysis and assessment is provided by data on tourism resourcing and ‘smart specialization’ defines the research objective(s). At this stage, research focuses on assessing the attractiveness and performance of the natural, cultural and historical resources of a region and their uses to develop the cluster. Attractors, which attract or are likely to attract tourists, are also defined at this stage. The main research purpose is to search for unique resource that might distinguish this or that tourism cluster from other similar clusters in direct competition with it. The data obtained at this stage help identify the specialization’s potential, that is, those tourism resources that are unique, widely known, unconventional and capable of distinguishing the region from a number of rival regions. The method of hierarchy analysis can be used to model the development trends of this tourism cluster’s specialization with consideration for various scenarios for using and accumulating tourism resources. Consequently, this method is used to determine how promising the tourism cluster’s possible specialization is.

As discussed above, the most effective clusters usually emerge independently and are based on entrepreneurial activity rather than on the initiatives taken by the authorities. The role of the Russian government in the development of tourism clusters on the territory of the Russian Federation cannot be overemphasized, however. In most cases, government support has beneficial effects on the sector under investigation, but there are other points of view on the subject. A number of economists consider that “state support only encourages the establishment of a structure, which can be nominally categorized as ‘clusters’” with no assessment of the competitiveness and real performance of such cluster systems. Furthermore, supporters of this view provide evidence that clusters are created by businesses rather the government. As an example, most world known clusters did not emerge as a result of government funding programs but rather as a response of businesses to some event, market demands, a new idea or initiatives taken by educational institutions (the most striking example may be the Silicon Valley project). The above, however, does not change the fact that well-thought-out government funding programs are capable of speeding up the development of the existing clusters and the creation of new ones. This said, the immense popularity of this theory often results in the political initiative’s dominance over the real economical need and rationale, which led, in

the United States, to a significant number of dysfunctional government funding programs, spending of hundreds of millions of dollars and the low competitiveness of a number of clusters” [2]. In examining tourism clusters on the territory of the Russian Federation, it makes sense not only to consider the list of clusters meeting the requirements of the Federal Target Program, but also to explore the possibility of establishing independent clusters in the tourism sector. In both cases, however, the role of the authorities cannot be overlooked, as they coordinate the development of tourism both at the regional and local levels. From the perspective of the present study, it is important to highlight the role of public authorities in determining cluster specialization through the promotion of certain types and areas of activity or the implementation of a specific vision of this or that territory’s area of specialty in terms of tourism. At this stage, it is imperative to detect the specific aspects and properties of the regional tourism management subsystem and its interaction with cluster structures. The institutional nature of the relationship between the government and businesses involved in tourism cluster development can be regarded as a major factor influencing the specialization of clusters, its role in applying the principle of according primacy to the search for opportunities, to the coordination and integration of cluster interaction. This study deems it important to examine the availability of public, professional and informal associations in the tourism sector, their place and role in devising a strategy to promote tourism development in the region.

The suggested approach to studying the specialization of tourism clusters seeks to identify the possibility of modelling ‘smart specialization’ for tourism clusters, whether established through the Federal Target Program or created independently in the regions of the Russian Federation. The objectives of this approach are as follows:

1. To determine the presence and current state of the cluster;
2. To investigate the potential of business activity in exploring new forms of tourism;
3. To examine activities aimed at supporting tourism-related innovation technologies;
4. To research usage of unique tourism resources of a region with a view to develop the tourism cluster in the area;
5. To explore the tourism management subsystem in the region in order to keep it in line with cluster development trends that are relevant in the given area.

Two major factors define the specialization of a tourism cluster, unique tourism resources available on the cluster’s territory and intra-cluster cooperation models. Cluster specialization produces tourism products, which results from the exploration of tourism resources, target specific sectors of the tourism market and can be associated with various forms of tourism. Therefore, the criteria for determining the specialization of a tourism cluster are as follows: its correlation with a form of tourism and focus on a specific segment of consumers. As the cluster develops with horizontal and vertical relationships expanding and changing, the diversification of the tourism cluster specialization becomes possible.

Given that tourism agglomerations capable of growing into clusters can emerge beyond the framework determined by the Federal Target Program, the authors deem it important, for the purposes of research, to define such agglomerations. An analysis of the approaches to the study of tourism clusters makes it possible to define the methodology and coherence of research into tourism clusters. This analysis will be based on the interrelated use of techniques directed at detecting key tourism development indicators and various aspects of processes taking place on the territory of a tourism agglomeration,

a proto-cluster or a cluster. A tourism agglomeration refers to a combination of geographically concentrated enterprises and organizations belonging to different sectors of the economy, but united by their activity in the tourism sector. The study of tourism cluster specialization will use the systematic, statistical and hierarchy analyses, quantitative and qualitative research as well and expert methods for obtaining and processing information. They provided a sound basis for the development of a number of other techniques. The methodology for the study of tourism products and services offered in this or that area is used to detect the following:

- Typological features of tourism products;
- Tourism products as the outcome of the activity in the exploration of unique tourism assets;
- Presence/lack of innovative tourism products and nature of innovations
- Identification of an agglomeration and of its geographical boundaries followed by a definition of the proto-cluster or cluster).

The following group of techniques aimed at detecting competition is used to determine the following:

- Presence/lack of competition among enterprises operating in the tourism sector within an agglomeration (internal competition);
- Presence/lack of tourism agglomerations rivalling with the investigated ones within the economic region (external competition).

The following stage is based on the use of techniques to research entrepreneurial activity in the tourism sector on the territory under investigation, which defines the following:

- Levels and extent of cooperation for the production of tourism products and services;
- Involvement/exclusion of non-tourism enterprises and their activity in the tourism sector;
- Evolution of the number of enterprises and organizations involved in the tourism sector.

The following stage adopts methods for studying tourism-related scientific and innovation activities in the tourism industry on the agglomeration's territory. The study aims to produce the following outcomes:

- A list of educational and academic institutions conducting research into the field of tourism;
- Tourism-related areas and topics of research;
- The number of ongoing academic projects directed at developing tourism on the agglomeration's territory;
- The number of implemented academic projects directed at developing tourism on the agglomeration's territory;
- Determination of the level of the territory's cluster development: an agglomeration, a proto-cluster or a cluster.

The use of the following group of techniques makes it possible to detect various aspects of the management subsystem and its influence on the specialization within the boundaries of a specific agglomeration/proto-cluster/cluster. The outcomes help identify the following:

- The system of territorial administration of tourism in a region and its impact on its tourism specialization, including on the territory of a specific agglomeration/proto-cluster/cluster;
- The informal (public and professional) system for managing tourism cluster development.

The following state is related to the application of techniques used to identify social activity in the tourism sector:

- The attitude of the local population towards entrepreneurial activities in tourism;
- Presence/lack and focus of training, re-training and advanced training programs offered to tourism employees;
- Enterprises' and organizations' demand for tourism specialists;
- Presence/lack and underlying motivation in working in the tourism sector among graduates from secondary vocational schools and higher education institutions.

Table 1. Use of techniques for research on tourism clusters when investigating their specialization

Methods for researching tourism clusters	Reasons for using research methods on tourism clusters
typological features of tourism products	to detect specialization
tourism products as the outcome of the activity in the exploration of unique tourism assets	to detect specialization
presence/lack of innovative tourism products and nature of innovations	to determine diversification potential
identification of an agglomeration and of its geographical boundaries followed by a definition of the proto-cluster or cluster)	to detect specialization
levels and extent of cooperation for the production of tourism products and services	to detect specialization, to determine diversification potential
involvement/exclusion of non-tourism enterprises and their activity in the tourism sector	to detect specialization, to determine diversification potential
evolution of the number of enterprises and organizations involved in the tourism sector	to detect specialization, to determine diversification potential
a list of educational and academic institutions conducting research into the field of tourism	to detect specialization, to determine diversification potential
tourism-related areas and topics of research	to determine diversification potential
the number of ongoing academic projects directed at developing tourism on the agglomeration's territory	to detect specialization, to determine diversification potential
the number of implemented academic projects directed at developing tourism on the agglomeration's territory	to detect specialization, to determine diversification potential

determination of the level of the territory's cluster development: an agglomeration, a proto-cluster or a cluster	to determine diversification potential
the system of territorial administration of tourism in a region and its impact on its tourism specialization, including on the territory of a specific agglomeration/proto-cluster/cluster	to detect specialization, to determine diversification potential
the informal (public and professional) system for managing tourism cluster development	to detect specialization, to determine diversification potential
the attitude of the local population towards entrepreneurial activities in tourism	to determine diversification potential
presence/lack and underlying motivation in working in the tourism sector among graduates from secondary vocational schools and higher education institutions	to determine diversification potential

#### 4. DISCUSSION

The outlined approaches to studying tourism clusters' specialization comprise the traditional understanding that tourism clusters' specialization is determined by the specific aspects of tourism resources [22]. Tourism resources, however, identify the potential of specialization. The actual specialization depends on the activities of tourism-related enterprises located on the territory of a specific cluster. The developed approaches will help determine the specific influence of all tourism-related enterprises in the given area on the specialization of the tourism cluster. It is equally feasible to define how diverse tourism clusters' specialization will be based on the development of activities related to tourism products and services on the territory of a specific cluster. In this regard, further research is needed on specialization as a factor shaped during the intra-cluster cooperation process.

#### 5. CONCLUSIONS

Based on the presented approaches to examining specialization as a factor in the development of tourism clusters, it is possible to choose research methods and the coherence of research activities in this area. The research findings will foster further research that will identify necessary tools and mechanisms for developing tourism clusters based on the diversification of their specialization. The findings of the study are directed at increasing the effectiveness of decisions taken to assess and forecast tourism cluster development and can also be of use to all those interested in tourism cluster development. The materials of the present study can be used by regional administrations to monitor and make effective management decisions aimed at improving regional tourism development programs. Experts and scholars could also benefit from the findings of this study to analyze and develop projections and to promote topic-related methodological approaches.

#### 6. ACKNOWLEDGEMENTS

This research study has been carried out with the financial support of the Russian Foundation for Fundamental Research as part of the Project No 18-010-00950 A.

## REFERENCES

- [1] Aleksandrova, A. Turistskiye klastery: sodержaniye, granitsy, mekhanizm funktsionirovaniya (Tourism Clusters: Content, Boundaries and Functioning) // Sovremennyye problem servisa i turizma. 2007. №1. pp. 51-61.
- [2] Alekhin, M., Kochemasov, A. Problemy klasterizatsii i klasternoy politiki (Issues in Clusterization and Cluster Policy) // Naukovedeniye Online Journal. Tom 7. №5. 2015. – Access mode: <http://naukovedenie.ru/PDF/90EVN515.pdf>. (Date of access: 13.01.2018).
- [3] Alkhimovich, I., Naydenov, N. Sozdaniye sistemy vzaimodeystviya krupnykh malyykh predpriyatiy kak faktor konkurentosposobnosti Severnykh regionov (Establishing a System of Cooperation between Small and Large Enterprises as a Factor in the Competitiveness of the Northern Regions) // Aktualnye problemy sotsialno-ekonomicheskogo razvitiya predpriyatiy, otrasley, kompleksov: monografiya. Kn. 2 / otvet. red. Ya. Maksimov. 2011. Krasnoyarsk: Nauchno-innovatsionnyy tsentr. Pp. 199-213.
- [4] Afanasyev, O. Tipologiya turistskikh klasterov, vklyuchennykh v FTsP 'Razvitiye vyezdnoy i vnutrenney turizma v Rossiyskoy Federatsii' (The Typology of Tourism Clusters listed in the Federal Target Program on the Development of Internal and Inbound Tourism in the Russian Federation) // Sovremennyye problemy servisa i turizma. 2016. №1. pp. 37 – 46.
- [5] Bakumenko, O. Klassifikatsiya turistskikh klasterov (The Classification of Tourism Clusters) // Sbornik statey Mezhdunarodnoy nauchno-prakticheskoy konferentsii 'Zakonomernosti i tendentsii razvitiya nauki v sovremennom obshchestve'. March 29 and 30, 2013. – Part 3. Ufa: RITs BashGU, 2013. – 321 p. – pp. 30-34.
- [6] Bakumenko, O. Razvitiye podkhodov k otsenke effektivnosti funktsionirovaniya regionalnykh turistskikh klasterov (The Development of Approaches to Assessing the Performance of Regional Tourism Clusters) // Regionalnaya ekonomika: teoriya i praktika. 2013. № 46. pp. 41-50.
- [7] Galiullina, G., Galimov, Sh., Shabanova, L. 2014. Metod analiza turistskogo klastera regiona (The Method of Analysis of the Regional Tourism Cluster) // Vestnik TISBI. № 2 (58). pp. 141-149.
- [8] Danilenko, N., Rubtsova, N. K voprosu o sodержanii ponyatiya 'Turistsky klaster' (On the Meaning of the Notion of Tourism Cluster) // Regionalnaya ekonomika: teoriya i praktika. 2013. №33. pp. 45-53.
- [9] Yefimychev, Yu., Zakharov, I. Promyshlennyye klastery i ekonomichesky rost (Industrial Clusters and Economic Growth) // Vestnik Nizhegorodskogo universiteta im. N. I. Lobachevskogo. Seriya: Ekonomika i finansy. 2008. № 1. pp. 15-18.
- [10] Klasternye politiki i klasternye initsiativy: teoriya, metodologiya, praktika (Cluster Policies and Cluster Initiatives: Theory, Methodology and Practice): Kol. monografiya / pod red. Yu. Artamonova, B. Khrustalyova. – 2013. IP Tugushev S. Penza. 230 p. [11] Kovalyova, T. Algoritm identifikatsii i otsenki klasterov v ekonomike regiona (Identifying and Assessing Clusters in the Regional Economy) // Vestnik Permskogo universiteta. Seriya: Ekonomika. 2011. № 4. pp. 30 - 39.

[12] Kostenko, O. Sostav i struktura strategii razvitiya klastera: piramida strategiy (The Composition and Structure of the Cluster Development Strategy: A Pyramid of Strategies) // *Ekonomika i predprinimatelstvo*. 2016. № 9 (74). pp. 638-645.

[13] Kropinova, Ye., Mitrofanova, A. Regionalny turistskiy klaster kak turistsko-rekreatsionnaya sistema regionalnogo urovnya (The Regional Tourism Cluster as a Tourism and Recreational System at the Regional Level) // *Regionalnye issledovaniya*. 2011. № 1. pp. 40-46.

[14] Larionova, N. Klasterny podkhod v upravlenii konkurentosposobnostyu regiona (The Cluster Approach to Managing the Competitiveness of a Region) // *Ekonomichesky Vestnik Rostovskogo Gosudarstvennogo universiteta*. 2007. №1 (2). pp. 180-183.

[15] Lebedinskaya, Yu. Regionalnye turistskiye klastery: upravleniye formirovaniyem i razvitiyem (Regional Tourism Clusters: Formation and Development Management). Dissertatsiya na soiskaniye uchyonoy stepeni kandidata ekonomicheskikh nauk. FGBOU VO 'Moskovsky gosudarstvenny universitet tekhnologiy i upravleniya imeni K. G. Razumovskogo (Pervy Kazachy universitet)'. – Moscow – 2015.

[16] Morozova, Yu. Klasterny podkhod k upravleniyu organizatsiyami turistskogo biznesa (The Cluster Approach to Managing Tourism Business Organizations). Dissertatsiya na soiskaniye uchyonoy stepeni kandidata ekonomicheskikh nauk. Sotchinsky gosudarstvenny universitet turizma i kurortnogo dela. Sochi. 2011.

[17] Nikolayev, M. Otsenka investitsionnykh proyektov (Assessing Investment Projects) // *Ekonomichesky analiz: teoriya i praktika*. 2010. № 4 (169). pp. 8-14.

[18] The Official Website of the Court of Audit of the Russian Federation [Electronic resource] – Access mode: [http://www.ach.gov.ru/press\\_center/news/32160](http://www.ach.gov.ru/press_center/news/32160) (Date of Access: 15.02.2018).

[19] Postanovleniye Pravitelstva RF ot 02.08.2011 N 644 'O Federalnoy Tselevoy Programme «Razvitiye vnutrennego i vyezdnoy turizma v Rossiyskoy Federatsii (2011-2018 gody)» (s izmeneniyami na 7 fevralya 2018 goda) (Decision No. 644 of the Government of the Russian Federation of 2 August 2011 entitled 'The Russian Federal Target Program on the Development of Internal and Inbound Tourism in the Russian Federation for 2011-2018', amended as of 7 February 2018). – Access mode: <http://docs.cntd.ru/document/902295121> (date of access: 09.01.2018).

[20] Rasporyazheniye Pravitelstva RF on 17.11.2008 N 1662-r (red. ot 10.02.2017) 'O Kontseptsii dolgosrochnogo sotsialno-ekonomicheskogo razvitiya Rossiyskoy Federatsii na period do 2020 goda' (vmeste s 'Kontseptsiyey dolgosrochnogo sotsialno-ekonomicheskogo razvitiya Rossiyskoy Federatsii na period do 2020 goda') (Decree No. 1662-r of the Government of the Russian Federation of 17 November 2008 on the Conception of the Long-Term Socio-Economic Development of the Russian Federation for the period up to 2020). Access mode: [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_82134/](http://www.consultant.ru/document/cons_doc_LAW_82134/) (date of access: 09.01.2018).

[21] Rimmer, M., Kasatov, A., Matiyenko, N. *Ekonomicheskaya otsenka investitsiy (Economic Evaluation of Investments)*. SPb: Piter. 2008. 480 p.

[22] Rudchenko, V. *Klastery v turizme: osobennosti klassifikatsii, protsess formirovaniya i metody otsenki (Clusters in Tourism: Classification, Formation and Evaluation Methods)* // *Obshchestvo. Sreda. Razvitiye (Terra Humana)*. 2016. №4 (41). – pp. 12-18.



- [23] Rutko, D. Otsenka effektivnosti funktsionirovaniya klasternykh struktur (Evaluating the Performance of Cluster Structures): sbornik nauchnykh statey. Vyp. 7 (12). Minsk: RIVSh. 2009. Pp. 413-419.
- [24] Cervantes, M., Meissner, D. Kommertsializatsiya nauchnykh issledovaniy v gosudarstvennom sektore po modeli 'otkrytykh innovatsiy': novye tendentsii (Commercialisation of Academic Research in the Public Sector Based on Open Innovation: New Trends) // Forsayt. 2014. T. 8. № 3. pp. 70–81.
- [25] Strategiya innovatsionnogo razvitiya Rossiyskoy Federatsii na period do 2020 goda (utv. Rasporyazheniyem Pravitelstva RF ot 8 dekabrya 2011 g. No. 2227-r) (The Strategy of the Innovation Development of the Russian Federation for the period up to 2020, approved by the Regulation No. 2227-r of the Government of the Russian Federation of 8 December 2011). Access mode: <http://www.garant.ru/products/ipo/prime/doc/70006124/> (date of access: 09.01.2018).
- [26] Ulyanchenko, L., Vinogradova, M., Gladskaya, I., Regionalnye turistskiye komplekсы i klastery: monografiya (Regional Tourist Facilities and Tourism Clusters: A Monography). Moskva: OOO Rusayns, 2015. 152.
- [27] Fedorets, L. Otsenka effektivnosti deyatelnosti turisticheskogo klastera (Evaluating the Performance of the Tourism Cluster) // Vektor nauki TGU. Ekonomika i upravleniye. 2011. № 1 (4). pp. 42–45.
- [28] Braunerhjelm, P., Feldman M. Cluster Genesis: Technology Based Industrial Development. Oxford: Oxford University Press. 2006. 353 c.
- [29] Carayannis E., Grigoroudis E. (2016) Quadruple Innovation Helix and Smart Specialization: Knowledge Production and National Competitiveness. Foresight and STI Governance, vol. 10, no 1, pp. 31–42. URL: <https://cyberleninka.ru/article/n/chetyrehzvennaya-spiral-innovatsiy-i-umnaya-spetsializatsiya-proizvodstvo-znaniy-i-natsionalnaya-konkurentosposobnost> (датаобращения: 26.03.2018).
- [30] Estrella R. G. Extent of Cluster-Based Economic Development Policies and the Political/Institutional Context: A Collective Case Study. Dissertation. Mississippi State University. 2011. 131 c.
- [31] Foray D., Goenaga X. (2013) The Goals of Smart Specialization: S3 Policy Brief Series (JRC Scientific and Policy Reports). Brussels: European Commission.
- [32] Larionova A. A., Dzhandzhugazova E. A., Chernikova L. I., Chudnovsky A. D., Faizova G. R. The Role and Importance of the Cluster Approach in the Development of Domestic Tourism of the Russian Federation // Journal of Environmental Management and Tourism. 2017. T. 8. № 2 (18).C. 385-392.
- [33] Mariussen E. Cluster Policies – Cluster Development? A Contribution to the Analysis of the New Learning Economy: Nordregio Report. Stockholm: 2001. -131 c.
- [34] Midtkandal I., Sörvik J. (2012) What Is Smart Specialisation? // Nordregio News. № 5. Access mode: <http://www.nordregio.se/en/Metameny/Nordregio-News/2012/Smart-Specialisation/Context>, date of access: 21.02.18.

- [35] Mills Karen G., Reamer Andrew, Reynolds Elisabeth B. Clusters and Competitiveness: A New Federal Role for Stimulating Regional Economies. Washington: Brookings Institution. 2008. 12 c.
- [36] Monfort M. Competitividades y factores críticos de éxito en la «hotelería de litoral»: experiencia de los destinos turísticos Benidorm y Peñíscola. Doctoral Dissertation, Universidad de Valência, Espanha, 2000.
- [37] Porter, M. 1993. International Competition: Competitive Advantages of Countries. Moscow: International Relations. 896 p.
- [38] Proskuryakova L., Meissner D., Rudnik P. (2015) The Use of Technology Platforms as a Policy Tool to Address Research Challenges and Technology Transfer // The Journal of Technology Transfer. P. 1-22. Access mode: <http://link.springer.com/article/10.1007%2Fs10961-014-9373-8#page-1>, date of access: 15.02.2016.
- [39] Schmitz Hubert. On the Clustering of Small Firms (Schmitz, Hubert (1992), On the Clustering of Small Firms", in Rasmussen, J., H. Schmitz and M.P. van Dijk (eds.), «Flexible Specialization: A New View on Small Industry», IDS Bulletin (Special Issue), 23(3):64-69.
- [40] Veretekhina S. V., Shinkareva O. V., Kozhaev J. P., Telepchenkova N. V., Kuznetsova E.A., Zaitseva N.A. Evaluation Methodology of the Multiplier Effect for the Region as the Result of the Cluster Formation. Eurasian Journal of Analytical Chemistry. 2017, 12 (5b), pp. 533-547.