

Identification of Tourist Clusters in the Pribaikal Region

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Abstract The purpose of this study was to assess the availability of tourism clusters in the regions of Pribaikal, namely the Irkutsk region and the Republic of Buryatia, using a variety of cluster identification methods. The findings suggest that the characteristics of tourism clusters are found in the Republic of Buryatia. However, in Irkutsk region they are not available, although the two regions are the object of a number of national and regional development programs of tourism clusters.

Keywords: *tourism cluster, methods of cluster identification, regions of Pribaikal*

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1. Introduction

Development of tourism clusters in Russia is a tool for improving the competitiveness of the regional sphere of recreation and tourism. The need to develop tourism clusters in the regions of Russia is emphasized in such fundamental documents as the "Concept of long-term socio-economic development of the Russian Federation for the period till 2020" [20], "The strategy of innovative development of the Russian Federation for the period till 2020" [21], Federal Target Program "Development of domestic tourism in the Russian Federation (2011 - 2018 years)" [7].

However, the formation and expansion of clusters is a long and resource-intensive process, so it becomes urgent to develop and test methods for the identification and assessment of regional clusters, the use of which would indicate the advisability of their support in the region and to identify the necessary resources for the implementation of justified projects [22,23].

To the study of tourism clusters currently devoted a considerable number of studies all around the world. However, most of the available literature, especially Russian language, is purely theoretical, conceptual in nature. Empirical studies of the functioning and development of tourism clusters were carried out by Beni (2003) [1], Monfort (2000) [15], Machiavelli (2001) [13], Nordin (2003) [17], Novelli et al. (2006) [18], Rodrigues (2001) [24], Smith (1989) [27], Yuzbasioglu et al. (2011) [30], and other authors, as well as experts of the United Nations World Tourism Organization (UNWTO). Since tourism in the second half of the twentieth century have developed mainly in the developed countries, empirical studies of the development of tourism clusters is 'geographically referenced' mainly to the countries of the European Union and North America. Much less such work

relates to developing countries, especially Asia. An exception is the study of tourism clusters in China, Thailand, and Turkey, where tourism represents one of the key areas of the national economy.

Among the studies devoted to the operation and development of tourism clusters in Russia, we can mention the work Guriev and Kurskieva (2012) [9], Zyryanova and Myshlyavtseva (2012) [31], Lobkin (2011) [12], Morozova (2011) [16], Sozaeva (2008) [28], Shevchenko (2012) [26] and others. Review of these studies allows us to conclude that they are mainly descriptive in nature, reflecting the spatial concentration and quantitative characterization of the subjects participating in the cluster. Empirical studies on the identification and assessment of tourism clusters are absent.



Figure 1. Geographical location of regions of the Pribaikal: Irkutsk region and the Republic of Buryatia

The purpose of this study was to assess the availability of tourism clusters in the regions of the Pribaikal macro-

region, namely the Irkutsk region and the Republic of Buryatia. These regions are located on both sides of the waters of the lake Baikal, and define the spatial boundaries of the study (Figure 1). Both regions have unique natural resources and landscapes, as well as the rich historical and cultural heritage. This suggests these regions as similar in many areas with similar conditions of functioning of the tourism sector.

In the territories of both regions is carried out government support for tourism development - in 2007 formed a special economic zone of tourist-type (SEZ "Gate of Baikal" - Irkutsk region and SEZ "Baikal harbor" - Republic of Buryatia), which involves the creation of favorable conditions for the organization of tourist, sports, recreational and other types of businesses. Both regions are included in the Federal Target Program "Development of domestic tourism in the Russian Federation (2011 - 2018 years)", which implies the formation of tourism clusters on their respective territories, in particular one in the Irkutsk Region and four in the Republic of Buryatia [7].

2. Theoretical Background

Currently, tourism is seen as a socio-economic activity, which can, among other things, play a crucial role in enhancing competitiveness and socio-economic development of depressed areas through the use of their natural, environmental, historical and cultural potential, where often there are no other alternatives to achieve these objectives. The idea of territorial development, with the potential for development of tourism (tourist destinations), is based on the premise that the field of recreation and tourism is able to stimulate economic growth, increase employment for the local population to ensure the attraction of investments and so on. Therefore, some researchers are trying to find an effective model for the strategic development of tourist destinations. Particularly popular in addressing this issue becomes a model of tourism cluster.

Certain provisions relating to the cluster concept, were developed already by Marshall, who was one of the first clearly pointed out that grouped together companies involved in related activities receive positive externalities. Subsequently, the concept of clustering has been developed by a number of researchers, among which highlights E. Damen, L.G. Matson, and M. Porter. Developments of these authors are currently estimated as classical works. M. Porter, in particular, carried out a detailed analysis of the relationship between the degree of clusters' development and competitiveness of the region or country. Subsequently, his research has been the starting point for the work of a number of scholars around the world, who significantly expanded the original interpretation of the concept of "cluster". It has been demonstrated that there are different types of clusters that have different abilities to ensure the competitiveness of their constituent industries and territories.

First developments of the cluster concept as applied to the field of recreation and tourism have appeared only at the beginning of the twenty-first century. The literature review suggests, that in recent years the interest in the study of tourism (tourism and recreation) has grown

considerably, including research conducted by Russian scientists. Despite the fact that the term "tourism cluster" (TC) is actively used, there is considerable divergence of views on the concept, content and manifestations of this phenomenon. In particular, Danilenko and Scar (2012) have identified and described five approaches to the interpretation of the concept of TC [3]:

1. TC as an effective territorial form of increasing competitive advantage of enterprises of tourist areas;
2. TC as a modern institution that combines system of formal and informal relations of its members with each other and the external environment;
3. TCs as a population of a certain kind of economic objects having a certain area of distribution in the territory;
4. TC as a mechanism for regional governance, aimed at strengthening the interests of the region, its independence, competitiveness and sustainable development;
5. TC as a regional tourism and recreation system.

Based on the study and analysis of existing approaches mentioned, authors formed by the following definition: "tourism cluster - a strategic inter-organizational network in the framework of a tourist destination that has a certain set of necessary and sufficient characteristics (attributes) such as, the presence of a group of geographically concentrated businesses, primarily typical tourist areas, the combined forward and backward linkages, general cultural and social environment, a particular area of study, the presence of actors in public and private institutions, owners of tourist resources as economic goods, and the consumers of tourism products" [3].

3. Methodology

Empirical research on clusters and their respective identification and evaluation methods used can be divided into two groups. The first group is based on a complex economic model, built on the basis of statistical data that identify the clusters by measuring a variety of local effects. This approach tries to quantify a 'critical mass', i.e. the development of a certain economic activity in the region with a considerable degree of concentration, which can form a cluster. The world practice has recognized the European Cluster Observatory methodology, as well as a method for identifying clusters of M. Porter. An approach based on statistical methods is used, in particular, by some Russian researchers Kutsenko (2010) in the construction of maps of clustering in Russia [10], and by Rastvortseva and Cherepovskaya (2012) for the identification and evaluation of clusters in the Central Chernozem region [22]. The advantage of this method (i.e. quantitative) is that research results can be compared over time and in-between the regions. The disadvantage of this method for the identification and evaluation of regional clusters includes the complexity of the calculations and a substantial generalization of the results that does not allow making a definitive conclusion and to formulate clear guidelines for the development of regional clusters.

The second group of methods is based on a qualitative assessment, which includes the collection of information from various experts in conducting case studies. This approach is often used by research organizations. Similar projects have been undertaken by the European Cluster

Observatory [2], the European Regional Development Fund [25] and the Institute of competitiveness [29]. In Russian economic practice, approach based on a qualitative assessment has been used, in particular, by Markov and Yagolnitsa for measuring the efficiency of information technology cluster in Novosibirsk [14], Golovanova et al. [8] in the study of the presence of clusters in the Russian industry. Despite the shortcomings of this approach (research carried out for different purposes, the data are often not comparable, and they are difficult to use for further work), research methods in the framework of this approach allow to characterize, describe the history of the development of the cluster, its functioning, the impact on employment, innovation and competitiveness of the region. In this sense, the research results provide an interesting source for the positive experience of various regions.

This current study was carried out in two stages. At the first stage, the presence of tourism clusters in the regions of the Pribaikal is estimated by the European Cluster Observatory methodology for the identification and evaluation of potential clusters, which includes three key indicators: “size”, “specialization” and “focus” [19]. Size is defined as the region’s share in total employment in the cluster group of the country. Significance in terms of the “size” takes place in the case where the region lies within the 10% of the regions that are leaders in this indicator. Specialization is estimated by the localization coefficient, which is seen as significant in case of excess of 1. Indicator “focus” is calculated based on the share of the cluster in the total employment in the region. Value is considered to be significant if it is included in 10% of the clusters of same category, which accounts for the largest share of total employment in the region. Formulas for calculating the coefficients are shown below.

Indicator “specialization” (localization coefficient) (1):

$$LQ = \frac{Emp_{ig} / Emp_g}{Emp_i / Emp} \quad (1)$$

with LQ – localization coefficient;

Emp_{ig} – number of people employed in the sector i in region g ;

Emp_g – total employment in the region g ;

Emp_i – number of people employed in the sector i ;

Emp – total employment in the country.

Indicator “focus” (2):

$$Focus = \frac{Emp_{ig}}{Emp_g} \quad (2)$$

with Emp_{ig} – number of employed in the cluster group i in region g ;

Emp_g – number of employed in the region g .

Indicator “focus” reflects the significance of the cluster for the regional economy. The criterion for classifying values of the index to the number of significant is the inclusion of the region in 10% of the leading regions in this cluster group.

Indicator “size” (3):

$$Size = \frac{Emp_{ig}}{Emp_i} \quad (3)$$

with $Size$ – “size” of the cluster group i ;

Emp_i – number of employed in the cluster group i .

Indicator “size” reflects the importance of the region for a given sector of the economy at the national level. The criteria for inclusion indicator values among significant is the same as in the previous record.

Upon reaching the significance criteria for each indicator regional clusters are assigned a “star”, respectively, the performance of all three indicators allows you to assign a cluster with three “stars”.

In the second stage of research is expert interviews with top management - members of potential TC. The objects of study were representatives of tourist business (tourism organizations, tour operators and travel agents), and accommodation (inns, hotels, resorts, pensions, etc.), education, regional and municipal authorities. Study was conducted between February and June 2013. A total number of 63 respondents were interviewed, 43 of them – top management of tourist enterprises, and the rest – representatives of the regional authorities, educational and scientific institutions. Representativeness of results across the regions of Pribaikal provides the following characteristics the total sample:

- the “business” sector, expert interviews were carried out, experts were heads of enterprises in the tourism sphere: managers of tourism enterprises (tour operators and travel agents) - 23 respondents, top management of accommodation - 20 respondents;
- the “governmental” sector, interviewed the authorities (or their deputies) of regional (Irkutsk) and the Republican (Ulan-Ude) agencies of tourism, as well as heads of departments of Tourism municipalities (Irkutsk and Ulan-Ude) - 6 respondents;
- the “educational” sector, interviewed representatives of relevant departments (heads of departments and employees) of universities from Irkutsk (5 universities) and Ulan-Ude (3 universities) - 14 respondents.

4. Research Results

Research results on the first stage of the study on the significance of the coefficients of cluster groups by industry “tourism” and “hospitality” in the regions of the Pribaikal are presented in Table 1.

Table 1. The summary table in terms of the significance of the cluster groups in the regions of the Pribaikal macro-region in 2012

Cluster group	Specialization	Focus	Size
	Irkutsk region		
Tourism	0,76	-	-
Hospitality	0,77	-	-
Republic of Buryatia			
Tourism	0,84	-	-
Hospitality	1,37	+	-

Source: [5]

Data from Table 1 shows that localization coefficient in the Irkutsk region by industry “tourism” and “hospitality” is less than 1. As indicators of “focus” and “size” amounted to a value less than 1, it is not possible to include the region in 10% of the Russian regions leading on this indicator. Hence, these indicators are not significant, indicating a lack of tourism clusters in the Irkutsk region. In the Republic of Buryatia were also obtained insignificant values of the indicators for

clustering in the industry “tourism”. However, the industry “hospitality”, the two of the indicators, namely “specialization” and “focus”, amounted to a value, which allows to ascertain the presence in the region of cluster groups with the class two “stars”.

The second phase of the study was carried out by an expert survey conducted in February and June 2013 in the Irkutsk region and the Republic of Buryatia [4]. Respondents were asked, “Are there any tourist clusters in your area?” And asked to evaluate the six signs of the presence of cluster relationships in the region (Table 2). On the question of a tourism cluster in the region positively replied 92% of the respondents of the Republic of Buryatia and 47% of respondents from the Irkutsk region. Thus, the degree of development of cluster relations in the Irkutsk region subjectively estimated by the respondents are much lower than in the Republic of Buryatia. Respondents’ assessments of signs of tourism clusters in the Pribaikal region are presented in Table. 2.

Table 2. Signs of the cluster relationships in the regions of the Pribaikal macro-region

Attribute	Irkutsk region	Republic of Buryatia
Cooperation with business partners	+	+
Cooperation with competitors	-	-
Cooperation with educational institutions	+	+
Interaction with regional authorities	-	+
Interaction with local authorities	+	+
Self-assessment of the availability of the cluster	-	+

Note: Assessment of the presence (or absence) of feature was exposed on the basis of the study results. Positive evaluation means that this feature was marked by more than half of the respondents.

According to Table 2, we can conclude that in the studied regions of the Pribaikal macro-region are found some prerequisites for the formation of tourism clusters, as a network of actively interacting enterprises in a form of partnership of educational and research institutions, with the supporting regional authorities. In the Republic of Buryatia, the majority of respondents have indicated most of the indicators of clustering, missing only a sufficient “cooperation with competitors”, while in the Irkutsk region, respondents mostly point to the lack of tourism clusters in the region.

Thus, summarizing the results of the two phases of the study, we can conclude that, despite, in many respects, similar conditions of functioning of the sphere of recreation and tourism, and measures of the state support in these regions of the Pribaikal macro-region, in the Republic of Buryatia shows signs of tourism clusters, whereas in the Irkutsk region they are absent.

5. Conclusion

Identification of tourism clusters in the regional economy can be done by qualitative analysis and by using statistical methods. Based on the methodology of the European Cluster Observatory and the expert survey, a study was conducted as to reveal the presence of tourism clusters in the regions of Pribaikal macro-region. The results indicate that in the Republic of Buryatia shows signs of tourism clusters, whereas in the Irkutsk region, they have not been found. However, in both regions there are a number of governmental programs at federal and

regional levels, aimed at the formation and development of tourism clusters.

The results obtained confirm the possibility of the practical use of quantitative and qualitative methods for the identification of tourism clusters in the regions of Russia. Identification of tourism clusters can indicate the effectiveness (e.g. the Republic of Buryatia) or inefficiency (e.g. the Irkutsk region) of programs and strategies for the development of tourism industry and tourism clusters, as well as serve as a basis for a decision making over the appropriateness of their continued support.

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