Tourist and recreational clusters as organizational and economic mechanism of control of formation and development of innovative capacity of the North Caucasus Federal District

Agrupaciones turísticas y recreativas como mecanismo organizativo y económico de control de formación y desarrollo de la capacidad innovadora del Distrito Federal del Cáucaso Norte

Grupos de turismo e lazer como um mecanismo organizacional e econômico para controlar a formação e o desenvolvimento da capacidade inovadora do Distrito Federal do Norte do Cáucaso

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Abstract
This article highlights the importance of the strategic approach for managing the tourism and recreation sector at the regional level. This article analyzes a relevant topic not studied before, consisting of considering tourism and the recreational group as an organizational and economic mechanism to control the formation and development of innovative capacities in the Federal District of the North Caucasus. The original methodological approach has been designed for the evaluation of the formation and development of the tourist cluster. It can also be used to evaluate clustering in the sphere of tourism, the efficiency of the tourist cluster, the synergy effect, which is based on an integral method of measurement definition and indices of...

Resumen
Este artículo destaca la importancia del enfoque estratégico para la gestión del sector del turismo y la recreación a nivel regional. En este artículo se analiza un tema relevante no estudiado antes, consistente en plantear el turismo y el grupo recreativo como mecanismo organizativo y económico de control de la formación y desarrollo de capacidades innovadoras en el Distrito Federal del Norte del Cáucaso. El enfoque metodológico original ha sido diseñado para la evaluación de la formación y el desarrollo del cluster turístico. También se puede utilizar para evaluar la agrupación en la esfera del turismo, la eficiencia del clúster turístico, el efecto de sinergia, que se basa en un método integral de definición de medida e índices de...

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heterogeneity indices. All these characteristics distinguish this method from the existing ones and allow to evaluate its implementation for the cluster policy in the tourist sphere. The management and economic proposals for the development of tourist groups are represented here: Organization of the group development center, design of the management structure and identification of the stages of development. The model of the North Caucasus Federal District for the tourism group has been designed and covers its specialization and functional directions of the companies defined by identifying a specific variety of the tourism industry. The authors affirm that the cluster policy is the key element to implement the objectives related to the development of the tourism industry in the regions with innovative capacity and economic development of the whole country.

**Keywords:** tourist cluster, organizational economic mechanism, management, formation, development.

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**Resumo**

Este artigo destaca a importância da abordagem estratégica para a gestão do setor de turismo e recreação em nível regional. Este artigo analisa um tópico relevante não estudado anteriormente, que consiste em considerar o turismo e o grupo de lazer como um mecanismo organizacional e econômico para controlar a formação e o desenvolvimento de capacidades inovadoras no Distrito Federal do Norte do Cáucaso. A abordagem metodológica original foi concebida para a avaliação da formação e desenvolvimento do cluster turístico. Ele também pode ser usado para avaliar o agrupamento na esfera do turismo, a eficiência do cluster turístico, o efeito de sinergia, que é baseado em um método integral de definição de medida e índices de heterogeneidade. Todas essas características distinguem este método das existentes e permitem avaliar sua implementação para a política de cluster na esfera turística. As propostas econômicas e de gestão para o desenvolvimento de grupos de turistas são representadas aqui: Organização do centro de desenvolvimento do grupo, desenho da estrutura de gestão e identificação das etapas de desenvolvimento. O modelo do Distrito Federal do Norte do Cáucaso para o grupo de turismo foi projetado e abrange sua especialização e direções funcionais das empresas definidas pela identificação de uma variedade específica da indústria do turismo. Os autores afirmam que a política de cluster é o elemento chave para implementar os objetivos relacionados ao desenvolvimento da indústria do turismo nas regiões com capacidade inovadora e desenvolvimento econômico de todo o país.

**Palavras-chave:** Cluster Turístico, mecanismo econômico organizacional, gestão, treinamento, desenvolvimento.

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**Introduction**

Socio-economic situation of the Russian Federation constituent regions predetermines national economic stability of the whole country. Russian Federation depends, a priori, on socio-economic situation of its constituent regions. The dynamism of development is influenced by the state of intraregional economic subsystems and sectors of economic activity, sectoral and intersectoral integration associations of economic entities, individual for-profit and non-profit organizations.
The cluster approach helps to increase the productivity, efficiency and competitive abilities of the regional economic entities. In general, it ensures the sustainable development of the regional socioeconomic systems. Purposeful clustering of the whole sector of the economy requires the development and implementation of general methodological principles and approaches to the organization and management of the process, based on a scientifically proven theoretical platform. Meanwhile, it is the methodological issues of generation and subsequent development of nonproduction clusters which are still insufficiently developed/studied (Galullina, 2014).

Meanwhile, methodological questions of forming and further development of non-production clusters are still underexplored even today (Galullina, 2014). The features of cluster structures functioning in services sector, including tourism, remain under-researched as well (Belyakova, 2014). Problems of tourism cluster identification and diagnosing are not solved yet. Existing methodological support of cluster activity and the issue of evaluation of their functioning and dynamics of its development require further explaining and improving (Vinokourova, 2012). Due to the above mentioned and some other reasons, a number of projects of tourism cluster creation in the regions of Russia are considered unfeasible and unproductive. The propositions stated above give us grounds to define the problem of the research as involving finding methodological bases and formulating the formation and development of tourism-recreational cluster management conception which, unlike the existing approaches, is based on methodological concepts of homeostatics, meaning the contradiction management inside a cluster-forming nucleus (between Tourist Companies Association and Cluster Innovation Center), that will enable us to improve efficiency of formation processes management and will enrich practical activity methodology on management of regional economics and its separate sectors (Burnyasheva and Pavluchkov, 2015). Having defined the problem, it is necessary to set out a number of research issues whether the proposed approach could essentially increase not only efficiency of formation processes management, but also regional tourist-recreational cluster development efficiency?

The aim of the research is developing scientific and methodological base of formation processes management and tourist-recreational cluster development in the North Caucasus Federal District for its further functioning in the regional economy mechanism improvement. Methodologically, the research is based on fundamental premises of several scientific directions, such as regional economics and, namely, its part studying spatially localized forms of commercial activity investigation, services sphere economy, cluster economics conception, homeostatics theory (Burnyasheva and Pavluchkov, 2015). The research has been made in structural, functional, management aspects on the base of systematic approach; it is founded on the principles of consistency, complexity and determinacy. Methods of comparison and quantitative analysis have been applied in the research (Masyuk and Katkov, 2010).

**Results**

Thus, the North Caucasus Federal District tourism cluster is an emerging entity which is being formed on the base of the infrastructure created in the Soviet period. For a long time it has been focused on domestic (regional) consumers. However, along with the cooperation developed within the framework of APEC there appeared an increasing trend of foreign tourists flow (William, 2013).

Therefore, we can acknowledge that the emerging previously traditional the North Caucasus Federal District tourist cluster is becoming export-oriented. The North Caucasus Federal District development strategy, that is currently being developed, provides for the creation of a zone that will contribute to further openness of the region territory for foreign tourists. The analysis of the North Caucasus Federal District competitive advantages makes it plausible to conclude that it is possible to begin the work on formation and development of tourism-recreational cluster under implementation of an appropriate regional policy of forming and encouraging clusterization of the area.

The central task for development of tourism recreational cluster in the North Caucasus Federal District is its globalization (integration into the international market), mainly at the expense of tourist flows from the APR (Rud et al, 2015). According to our opinion, in order to implement this goal, we should undertake the following steps:
1. To monitor the requirements of tourism services consumers in the APR, to study the main tourist flows for the purpose of defining the region segments and specialization within these flows.

2. To identify the basic competitive tourism products and the region specialization under the international tourist flow (Radkovich, 2012).

3. To create tourism products.

4. To stimulate clusterization processes in tourism sector.

5. To stimulate the cluster-forming nucleus.

To provide administrative support for promotion (export) of tourism products (Gorbunov et al, 2016).

Discussion

Impact on the infrastructure can be directly implemented by means of infrastructure facilities specialization which are fully or partly included in the structure of the cluster relationships and interests. It can be also implemented indirectly – by means of indicative management methods (Gorbunov et al, 2016). Goals and content of a tourism product offered and defined in the market in accordance with potential consumer requirements determines the particular set of the above-mentioned methods and forms of impact.

We have presented the procedure of tourism product development in Figure 1, which shows that the category of tourists and the type of tourism expected to be developed in the region predetermines the choice of requirements for infrastructure facilities (Boush, 2013).

**Figure 1. The tourism product development procedure**

Such interdependence shows that the selection of content, structure and methods of tourism services sales are to be based on a detailed analysis of needs, forms and approaches for potential consumers. Nevertheless, social sphere as a cluster element, which provides accommodation, entertainment, catering and other infrastructure, represents special importance. Thus, social sector development, its adaptation to tourists' demands is to become a meaningful part of regional cluster policy.

Motivation for cooperation and understanding the advantages of joint work are to become a basis for the launching of tourism clusterization in the North Caucasus Federal District (Aleksandrova, 2013). In order to find a solution to this task, local authorities have to use the methods of legislative regulation and self-organization processes stimulation. They include legal conditions, brand policy, the structures that give grounds for a collective dialogue and consolidation.

In order to create an organizational cluster of tourism, currently being designed in the North Caucasus Federal District, we will define a number of theoretical premises.

As a whole, cluster-based relations allow to reach the highest level of competitiveness and efficiency in external markets. Cluster models are extremely diverse, but we can highlight their basic parts. Figure 2 shows regional cluster structure.
Let us see its components in detail.

Cluster nucleus is a group of companies manufacturing the final product and exporting it from the region. Competitiveness of the manufactured products and the level of competition within the cluster nucleus are the key indicators characterizing its condition. Product competitiveness can be measured by means of M. Porter’s competitiveness assessment method which involves five forces analysis: 1) threat of substitutes; 2) threat of new entrants; 3) bargaining power of suppliers; 4) bargaining power of customers; 5) intensity of competitive rivalry (Bunakov, 2014).

This analysis pattern enables to determine the situation in the cluster nucleus by means of evaluation of final product’s position on the market. This approach makes it possible not only to evaluate the competitiveness, but also to identify methods and forms to impact the cluster.

Although the cluster nucleus is significantly important, its prosperity is predetermined by condition and level of interaction within other elements of cluster infrastructure.

Specialized labour market is a communication system aimed to train and retrain qualified personnel in order to provide all components of cluster structure with labour force. Competition for qualitative superiority in labour force is one of the basic elements of competition as a whole.

Fierce competition in the cluster nucleus and in the labour market stimulates entrepreneurs to invest in social sector.

Availability of manufacturing companies, supplying the cluster nucleus with raw materials, equipment and power, represents a significant advantage for the region competitiveness. The bigger share of final product manufacturing is concentrated in the region, the higher is the added value accumulated there.

Another component is government services. Managing economic activity, government establishes institutions for regulation of general economic aspects (taxes, customs, etc.) and industrial standards and rules (technical regulations, certification of certain kinds of products, etc.). Availability of these services, as well as their transparency and clarity are also a significant advantage of this regional cluster (Rubtsova, 2014).

The most important component is transport and logistics services. The majority of modern manufacturers need specialised transport and distribution network. Specialised transportation is determined by the characteristics of goods (requirements for the transport, access routes, etc.) (Sozieva, 2011).

Information infrastructure is a key factor for modern business. Online-trading, search of raw materials, equipment and technologies, marketing and promotional activities are
essential attributes of modern enterprise. Establishment of cluster structures, which provide a full range of specialized information services to all cluster components, also reduces costs and increases the quality of the manufactured products (Shepelev and Markova, 2012).

The above mentioned characteristics of the cluster structure (components) prove that each of them has its own resource to enhance the performance and increase the competitiveness of the company.

From the characteristics (elements) of the cluster structure mentioned above it becomes clear that each of them contains its own resource for improving the operations efficiency and increasing the production competitiveness. Thus, the essence of the organizational and economic mechanism of the emerging cluster management (Yakovlev-Chernysheva, 2011), unlike the sectoral approach, is in a targeted impact on the main elements of the cluster structure, which ensures their balanced development. The main directions and elements of the organizational and economic mechanism of the cluster management are implemented in regional cluster policy.

We believe that a productive approach to designing the organizational structure of the North Caucasus Federal District tourism cluster is homeostatic (Tsihan, 2013).

Homeostatics is a branch of cybernetics; the subject of its research is the investigation of the internal contradictions of the objects studied, which ensure their homeostasis, maintaining the vital functions within the optimal range of values, objects’ resilience to the interference from the environment. Internal contradiction is becoming the driving force for the development of the object.

We should note that homeostatics methods are rarely used in economics, but they have already proven their efficiency, especially in the management systems’ design. With this approach the management of the formation and development of the North Caucasus Federal District created tourist cluster can be focused on identifying (forming) the two internal elements and the contradictions between them, as well as on managing its development. Two elements being in a contradiction will play the role of a cluster-forming nucleus, the development of which will stimulate the corresponding development of all other elements of the designed touring cluster.

The proposed organizational model of the North Caucasus Federal District designed tourism cluster is shown in Figure 3.
Figure 3. Organizational model of the designed tourism and recreational cluster of the North Caucasus Federal District

Let us consider the role of each element in the organizational model of the projected tourism cluster.

1. Tourist Companies Association. Taking into account the specificity of the tourism industry, in which the cluster nucleus is mainly represented by small and medium-sized businesses, it is necessary to have a coordinating structure in the form of an association of tourist companies. The association performs communication functions both vertically and horizontally. Vertical communications are defined by the need for a consolidated representation of the industry’s interests when interacting with government authorities and local governments, as well as formulation of common rules for interacting with the cluster infrastructure (rent, requirements for services of related industries, etc.).

Horizontal communications ensure coordination and cooperation with external environment, capability to act in a cohesive way while entering the emerging markets (Larionova 2014; Nagoev, 2018).

The launch of mechanisms for self-regulation and coordination of all cluster elements should become the main direction of the regional cluster policy (Potapova and Vidoscheva, 2012). It is particularly important for the tourism industry,
since business organizations of the cluster’s nucleus and its infrastructure (accommodation, transport, catering, etc.) are represented by small and medium-sized enterprises which are desperate for the centralized services which they cannot provide for themselves (consulting, promotion to the international markets, personnel training, innovative and information services, etc.) (Namazbekov, 2015). The establishment of a social organization (an Association) of the cluster’s agents with the involvement of the authorities’ representatives into its functioning would make significantly easier the communication, the interaction with the authority bodies and the companies’ access to the resources necessary for their activities.

Tourist Companies Association, in our view, should launch the cluster’s initiatives, coordinate the tourist companies’ inner activity, promote tourism products and brands, act as the main partner of the federal and local authorities in determining the requirements for the public economy sector regarding to ensure the conditions for the tourism cluster operation.

2. The Cluster Innovation Centre. We suppose that the NCFD developed tourism cluster must comprise the Innovation Centre as its element, which together with Tourist Companies Association will assume the role of a cluster-forming nucleus (Gusev, 2013). It may include scientific, research, consulting organizations, educational institutions involved in training of the staff (the US universities, as a rule, follow this scheme). It could be set up as well a special centre with the Tourist Companies Association (like in Germany and other European countries).

The main task of the Cluster Innovation Centre must be ensuring of the shortest possible way from the creation of a tourism product up to its selling, its contents development, marketing, consulting and other support of the nucleus functioning and the cluster’s infrastructure, maintenance of the information and educational infrastructure.

Thus, the Innovation Centre of the NCFD tourism cluster must include the industry leaders, who actively generate new projects, products, attract and create new resources, opportunities, contribute to the comprehension of the common problems and tasks in the tourism industry and search for the ways of the joint solution by cluster’s agents (Klevchenkov and Petrova, 2012)

Figure 4 represents main activities directions that the NCFD Cluster Innovation Centre must be focused on.

![Figure 4. Fields of concern of the Innovation Centre of the developed tourism-recreational NCFD Cluster](image)

The solution of the problems shown in fig. 4, implies the organization cooperation between the participants of the designed tourist cluster in the wide sense, therefore the communication forms of the NCFD Tourist Companies Associations and the Innovation Center of the Tourism Cluster organization come to the fore. Thus, in our opinion, the Innovation Center of the Tourism Cluster should assume the following functions:
— analytical and consulting support of all the cluster elements, market reviews, analysis and forecasting of its development, developing of recommendations on various aspects of the tourism products promotion, monitoring the situation in the cluster and its elements (Public-Private Sector Cooperation: Enhancing Tourism Competitiveness, 2015);
— ensuring access to new technologies and products. It is here that a specialized information database can be concentrated;
— advising and supporting both the organizational and the essential activities of small and medium-sized companies, providing the access to different types of intellectual resources;
— the implementation of continuous staff training for all the cluster’s elements according to the Cluster sphere. Such training should be conducted in the center where special information is collected and processed;
— formation of the professional communication environment. Formal and informal activities carried out within the Innovation Center are the way of technologies transfer (Rudneva, 2015; Taturev, 2016).

In accordance with the Civil Code of the Russian Federation the legal status of the NCFD Tourism Cluster Innovation Center should be recorded as a nonprofit organization with a wide membership of educational institutions that are involved into training for the cluster’s enterprises within the framework of the educational programs, on various levels and for scientific institutions operating in the fields of developing tourist products, as well as for consulting organizations and cultural institutions exploiting natural, historical and cultural objects visited by tourists. The Innovation Center can be organized in one of the higher educational institutions.

We consider that the core part of the Innovation Center Cluster activities should be built up by the means of concentrating the funds allotted by the state (within the framework of the tourism development program and the finance allotted for specialists training) and the private funds that are consolidated by the association for the tourism products development.

The activities structure of the Innovation Center of the NCFD tourism recreational cluster is shown in Figure 5.
Figure 5. Structure of the Innovation Center of the NCFD tourism recreational cluster

The figure shows that most of the performed functions can be self-sustaining.

3. Tourist companies (tour operators, travel agents). Travel companies produce and sell tourism products. They include travel agencies; companies operating on the tourism market as tour operators as well as agents of the hospitality industry (hotels, resorts, holiday houses), that sell their services, both through tour operators and independently (Kovalev, 2013).

4. Companies from related economic sectors (transport, catering, accommodation, leisure, etc.) are primarily represented by the hospitality industry. Normally, the companies that provide support services to ensure the sales of the tourism product are referred to hospitality industry. These include transport and logistics companies, companies providing accommodation and catering for tourists, souvenirs production, leisure industry, etc.

5. The main content of the tourism product comprises infrastructure facilities, as they form the consumers’ motivation and the basis of its competitiveness.

6. Under this organizational model regional authorities perform the following functions: development of the legal framework for the cluster activity and infrastructure; functioning as the owner; administering the cluster infrastructure facilities located in the public sector; investing and taking other measures for the cluster development.

Thus, the cluster-forming nucleus of the NCFD designed tourism cluster must comprise the Tourist Companies Association and the Innovation Center.

The key elements of the proposed organizational model are: The Tourist Companies Association and the Innovation Center. The proposed organizational model of the NCFD designed tourism cluster gives ground for the development of the organizational and economic management mechanism.

Conclusion

Taking into account all the propositions mentioned above, the direct management actions can be formulated as follows:

1) to create the NCFD Tourist Companies Association;
2) to form the NCFD Cluster Innovation Center;
3) to create the NCFD Tourism Cluster Coordination Council;
4) to initiate the formation of the homeostatic type of efficient contradiction between the Cluster Innovation Center and the Association of Tourist Companies by alternatively providing all necessary information and knowledge;
5) to initiate and ensure the constant work of cooperation institutions for the projected cluster participants via meetings, forums, conferences, round-table discussions, etc.

Such actions should result in an increase in the number of cluster agents, its organizational structure, the cluster-forming nucleus and the mechanism of functioning, i.e. the emergence of working at full capacity tourism cluster in the North Caucasus Federal District.

The development of the modern tourism and recreational cluster in the North Caucasus Federal District will be a driver of the economic fields development in the North Caucasus regions.

Reference


