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MODEL OF ORGANIZATIONAL STRUCTURE FOR TOURIST CLUSTER IN KAZAKHSTAN

This article considers the basic factors influencing and restraining the development of the tourist cluster in Kazakhstan. As the final result based on the conducted regression analysis of the indicators of tourist sector development it was suggested to have as the model of organizational structure of tourist cluster be the one that will fully respond to the requirements of innovative development of the tourist sector.

Keywords: cluster, recreational resources, structure, model.

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МОДЕЛЬ ОРГАНІЗАЦІЙНОЇ СТРУКТУРИ ТУРИСТИЧНОГО КЛАСТЕРУ В КАЗАХСТАНІ

У статті розглянуто основні чинники, що обумовлюють і стримують розвиток кластера в туристській галузі Казахстану. На основі проведеного регресійного аналізу показників розвитку туристичної галузі запропоновано модель організаційної структури туристичного кластера, який найбільш повно відповідає вимогам інноваційного розвитку туристичної галузі.

Ключові слова: кластер, туристично-рекреаційні ресурси, структура, модель.

Табл. 1. Рис. 1. Літ. 11.

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В статье рассмотрены основные факторы, обуславливающие и сдерживающие развитие кластера в туристической отрасли Казахстана. На основе проведенного регрессионного анализа показателей развития туристической отрасли предложена модель организационной структуры туристического кластера, наиболее полно отвечающая требованиям инновационного развития туристической отрасли.

Ключевые слова: кластер, туристическо-рекреационные ресурсы, структура, модель.

Problem identification. Evaluating the touristic-recreational potential of Kazakhstan and building the model of organizational structure of the tourist cluster.

Key publications analysis. The problem of formation and development of clusters is very essential and many authors have dedicated their works to this issue. Contemporary cluster's prototype was covered in the works of A. Marshall (1920), the so-called "industrial zones" that correspond to modern clusters by their structure. Characteristics of these local concentrations of specialized activities were made in terms of external economies triad:

1. Available and qualified labor.
2. Growth of supportive and auxiliary sectors.
3. Specialization of various firms at different stages and segments of production.

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A classic work in the development of cluster theory is by M. Porter (1993) who developed the "diamond of competitiveness", here are its key elements:

- characteristic of the strategy of a firm or a subfirm within a country, that include relation to competition, market institutions, level of local competition and other cultural and historical factors that affect the relationship of firms with each other, with their employees and government;
- factor conditions or basic impacts and conditions in which a firm is trying to compete (expenses, associated with basic factors, such as easy accessible supply of natural resources or inexpensive, unqualified labor in comparison with knowledge and/or technologically related advanced factors);
- conditions of demand or the characteristic of local demand (needs and wishes of consumers of foreign and local goods, as well as the existence of local industrial demand for related intermediate products);
- presence of familiar and supportive sectors, including suppliers and some of the competitors (both stimulate cooperation).

The works of Y.M. Chernoutsan (2008) and P.V. Vorobieva (2011) are dedicated to the problem of clusters development by underlying specific methods of directions and instruments in developed countries of the world.

The works of Zh. Mignalyeva and S. Tkachev (2000), S. Sokolenko (2002) were dedicated to study further the essence of cluster in Russian economy.

The liberal attitude is put as the basis of the cluster structure in the USA, it assumes market relationship (both vertical and horizontal), where the main criteria of making business is price, whereas the relationships are tied and stopped easily. Government interferes to this organizational structure mainly by its federal bodies that control compliance with antitrust law: supports competitions and market institutions, develop court mechanisms of dispute resolution, supports market intermediaries. Britain and France have similar methods of cluster formation, that act as a governmental-private partnership where major attention is paid to governmental-private partnership with large firms.

Italian cluster has present a big amount of small firms that compete or cooperate with each other with the sharp prevalence of horizontal relations over vertical. Government does not impose any ready decisions, but general decisions are made as a result of joint activities of private companies that form this cluster. Such structure has following advantages: flexibility, quick reorientation, imitativeness, whereas the disadvantage is inability to produce combined production. The cluster model of Finland is based on supporting large firms able to create innovations and organize export independently.

The goal of the research consists of development and justification of the model for effective organization and management of the tourist cluster in Kazakhstan.

Main results of the research. Kazakhstan possesses wonderful touristic-recreational resources, several climate zones that include mountains with glaciers, beautiful forests, relic groves, boundless steppes, mysterious deserts, large number of reserves and national parks protected by the government. The rich history of Kazakhstan is represented in original material-historical monuments. The development of tourism is restricted by the following factors:

- absence of modern touristic infrastructure: several-star hotels, different types of transport, telecommunication systems, well developed delivery;
- absence of scientific grounding tourism for business: forecasts and studies on tourism territory organization, evaluation of recreational resources, scientific principle organization of tourism, including types of its management.

On the basis of foreign experience, taking into account local specifics, the authors suggest the model of organizational structure of tourism cluster as an element of national innovational system of Republic of Kazakhstan (RK).

Formation of conditions to create competitive tourism services assumes conduction of a complex research of tourism specifics in Kazakhstan that will allow segment the regional tourism market depending on consumer demand, will substantiate the directions in investment towards the development of tourism objects and infrastructure, and will also make forecasts regarding the anthropogenic load on natural objects and landscape of the region.

According to the plan of regression analysis on the effectiveness of organization of tourism activity, the evaluation procedure assumes consecutive realization of 3 stages:

1. Formation of analytical base of evaluation indicators (original data).
2. Identification of dependency between major resulting indicator and the indicators characterizing the parameters of tourism service.
3. Forecast of resulting indicator taking into account average annual indicators.

Let's take statistical indicators of tourism sector in Kazakhstan as the initial data: x_1 – visitors serviced by touristic firms; x_2 – visitors accommodated; x_3 – quantity of touristic firms; x_4 – hotel filling in; y – service volume provided to tourists (considered as the resulting indicator).

Data calculation based on given statistics is provided in Table 1.

Table 1. Data to build the regression model

	x_4 , %	x_3 , firms	x_2 , mln people	x_1 , mln people	y , mln KZT
2007	26.6	1007	1965	542	40414
2008	23.5	1163	1801	474	50559
2009	20.4	1203	1545	347	48309
2010	21.3	1252	1817	459	58262
2011	23.4	1515	2017	602	63136

Building the regression model by means of Microsoft Excel: $b_1 = -55.3$; $b_2 = 60.4$; $b_3 = 26.3$; $b_4 = -2767.7$; $y = -2767.7x_4 + 26.3x_3 + 60.4x_2 - 55.3x_1$.

Coefficient of determinacy of the model R , according to Microsoft Excel, is 0.999, therefore the model is fully explaining the provided data.

Calculations show that most of all the result is influenced by x_1 indicator (number of visitors), because it has the highest coefficient. Therefore, the main factor that can increase the profit of tourism sector in Kazakhstan is increasing the number of visitors, and therefore we need to develop advertisements, marketing, and cluster zones, that will be able to attract a lot of visitors because of it's image.

This model can be used to forecast the profit in 2013. According to assumption on the continuation of present trends and according to the statistical data of 2013 there are going to be the following changes in indicators:

x_1 – growth by 15.6% in visitors number that are being serviced by touristic firms (linear trend equation that shows dependency of the indicator upon year, $y = 11.36x + 448.62$);

x_2 – growth by 8.8% in visitors number serviced in places of accommodation (linear trend equation that shows dependency of the indicator upon year, $y = 12x + 1793$);

x_3 – growth in quantity of touristic firms by $(1515 / 12.52) - 100 = 21\%$ (linear trend equation that shows dependency of the indicator upon year, $y = 5.3x + 36.2$);

x_4 – growth in hotel filling in by 1.1% (linear trend equation that shows dependency of the indicator upon year, $y = 0.38x + 24.66$ assumes a tendency for small fall, nevertheless according to the dynamics of the last years let's assume that the same small growth will continue as this year).

Gathering new meanings of the indicators and forecast of service volume, which is: $-2767.7 \times 23.4 \times 1.156 + 26.3 \times 1515 \times 1,21 + 60,4 \times 2017 \times 1,088 - 55,3 \times 602 \times 1,1 = 69272,351$ mln KZT.

On the basis of the regression analysis results, the authors have developed an organizational structure of the cluster that most fully responds to the requirements in Kazakhstan, the conditions and goals of tourism sector development in RK.

The suggested structure reflects the system of cooperation between suppliers and consumers of touristic services (Figure 1). The central management body of the cluster is Coordinational council. It has the following functions:

- identification of the goal indicators in the development of the cluster;
- evaluation of intermediate results in accordance with the goal indicators;
- developing and taking actions to support the members of the cluster;
- realization of investment and research projects.

Cluster management body is responsible for informing, in a timely manner, all participants about the perspective development directions of the cluster, also about the potential and material technical resources of scientific and educational institutions with the aim of joint projects realization. In order to represent the interests of participants and to provide guarantees cluster management body must provide standard way of forming contract relationships and realization of joint projects in the spheres of development, production and realization of products.

Coordination council of the cluster consists of ordering customers' representatives, representatives of scientific group and business group. Ordering customer's representative is the employee of the center of cluster development. Representative of scientific group is the pro-rector for research in one of the universities in Astana. The aims of scientific representative is to find people or scientific groups that can enable accomplishing the strategic goals of the cluster. Business group representative is one of the directors of enterprises that are a members of the cluster. He gives information regarding possibility of project realization. Strategic department reporting to and under the control of coordination council and includes:

1. Science forecast department that determines the prospective directions of scientific development. The functions of department include: monitoring scientific research, compose fact sheets and reports on current scientific research, projects and developments.

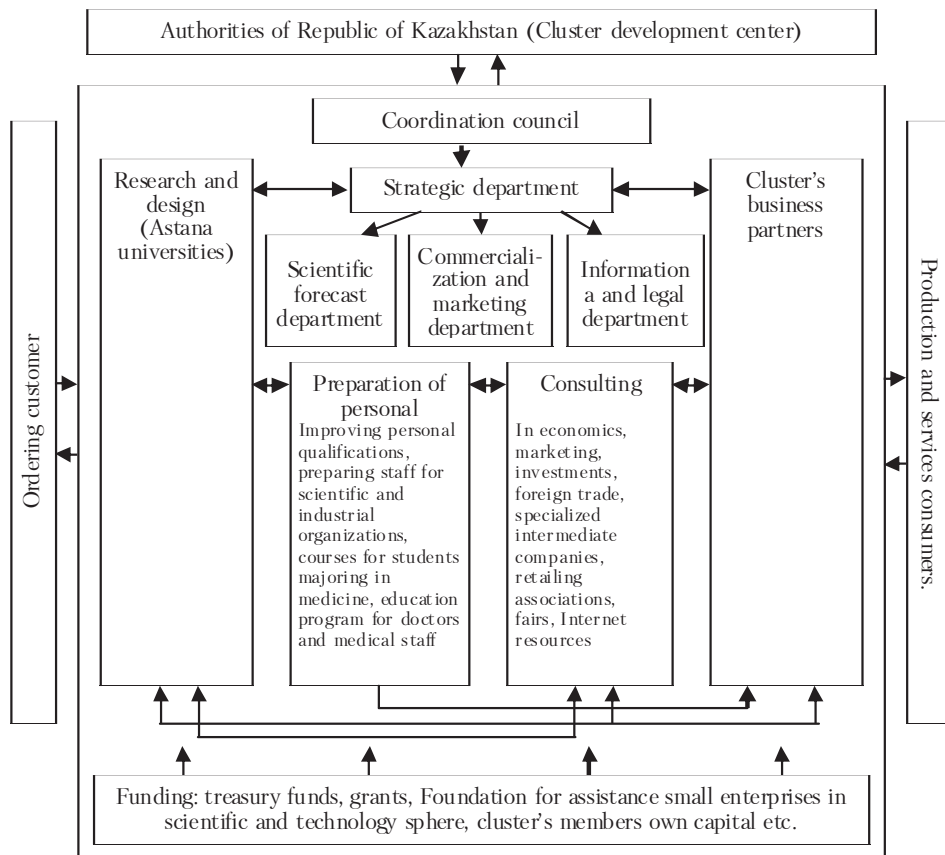


Figure 1. Structure of the touristic cluster in Republic of Kazakhstan, composed by the authors

2. Commercialization and marketing department for which the main goal is identify the sources of funding, promotion of products and monitoring of grant, stock and other kinds of support.

3. Information and legal department that provides informational-analytical and legal support to the participants of the cluster, as well as interaction with innovative infrastructure of the city, region, Kazakhstan and other countries. This department creates interaction between cluster's participants, protects their rights of intellectual property, is responsible for creating web site and its administration. Also, this department is responsible for electronic database of scientific and industrial products of the cluster.

4. A scientific-research group includes universities and research institutes of Astana, that are aimed to develop fundamental science, to increase competitiveness of universities' graduates at the labor market, facilitating commercialization participant's elaborations, to secure and effective usage of intellectual property. Interaction in the research group will accomplish within joint research projects during the forecasting process of development of science, technology, and the commercialization of research results. In order to increase effectiveness of universities' potential it is neces-

sary to create groups directly involved in the process technological development, scientific and technological forecasting, which are resource centers at enterprises and organizations that provide consulting and analytical activities. The main activities of universities have to be supplying small enterprises – cluster's participants by the constant influx of highly qualified personnel. Companies give opportunities for students and young scientists to intern at tourism firms.

Conclusion. The regression analysis for calculating key factors of touristic-recreational potential of Kazakhstan determined the tourism services' effectiveness and the line of its development. Based on the data the offered model of organization of this cluster illustrates the direction and interaction instruments for the participants in the cluster suppliers as well as consumers of the touristic products. The essential principal of the cluster's participant selection must be the usage of innovative technology and interest of a members in its implementation at the market.

Possible weaknesses and problems during the formation of the tourism cluster may be the lack of experience in cluster interaction; distrust of cluster's member to each other and to government, inside cluster competition and absence or lack of experienced managers that can identify problems. All these problems are temporary and can be solved during the functioning of the cluster.

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