

Justification of the Forming Mechanism of a Supply Chains by Regional Tourist Cluster Competitiveness

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Abstract— The competitiveness of the region and prosperity of economy are substantially caused by forming of competitive industry clusters in the supply chain strategy. With a force of the industry clusters making it the extensive list of scientific works is devoted to questions of a research of interrelation of competitive positions of the region. However today there is no standard approach to selection of indicators of competitiveness of a tourist cluster and to its assessment. Authors present an integrated approach to assessment of competitiveness of a tourist cluster of the region on the basis of a rhombus of competitive advantages of M. Porter and the system of accumulation of cost by subjects of this education in article. According to the offered approach the competitiveness of a tourist cluster of the region forms proceeding from complex assessment of competitiveness of every one of subjects in its structure. At the same time the competitiveness of subjects of a tourist cluster is measured proceeding from the competitive advantages reached by it. The combination of competitive advantages, participants of a cluster as well as their interaction provide synergy effect in improving competitiveness of a tourist cluster and, as a result, the region.

Keywords— *tourist, supply chain strategy, regional tourist cluster, competitiveness.*

1. Introduction

The specificity of product development in the tourism industry requires the commitment and cooperation of many partners – operators in the tourist supply chain. Now in scientific literature there is no standard system of indicators of competitiveness of a tourist cluster, also as well as there is no uniform approach to assessment of its

competitiveness. The approach offered by authors will allow providing adoption of the justified and effective management decisions by bodies of state regulation of tourism and also business by structures, for the purpose of increase in competitive positions of a tourist cluster of the region, subjects in its structure and also competitiveness of the region in general.

2. Methods of Supply Chain

Tourism Supply Chain (TSC) as a network of tourism organizations involved in a series of diverse activities, ranging from providing an entire spectrum of components of tourism products/services, such as flights, accommodation at the tourism reception desk, and ending with the sale of tourism products in the tourism region. The concept of competitiveness is many-sided, multidimensional and multi-level. It caused existence of a set of definitions of this term. The research of the matter devoted [1, 2, 3, 5, 6, 7].

To studying of features of functioning of industry clusters and in particular a tourist cluster scientific research of scientists of the World tourist organization, [6, 8, 9, 10-25].

M. Porter developed methodological approach to identification of competitive advantages of the countries which is universal and applicable for impact assessment of factors of competitiveness, for identification, the analysis and assessment of competitive advantages of objects at the different levels: micro (level of a product and enterprise), meso (level of the industry, industry cluster, region) and macro (level of national economy).

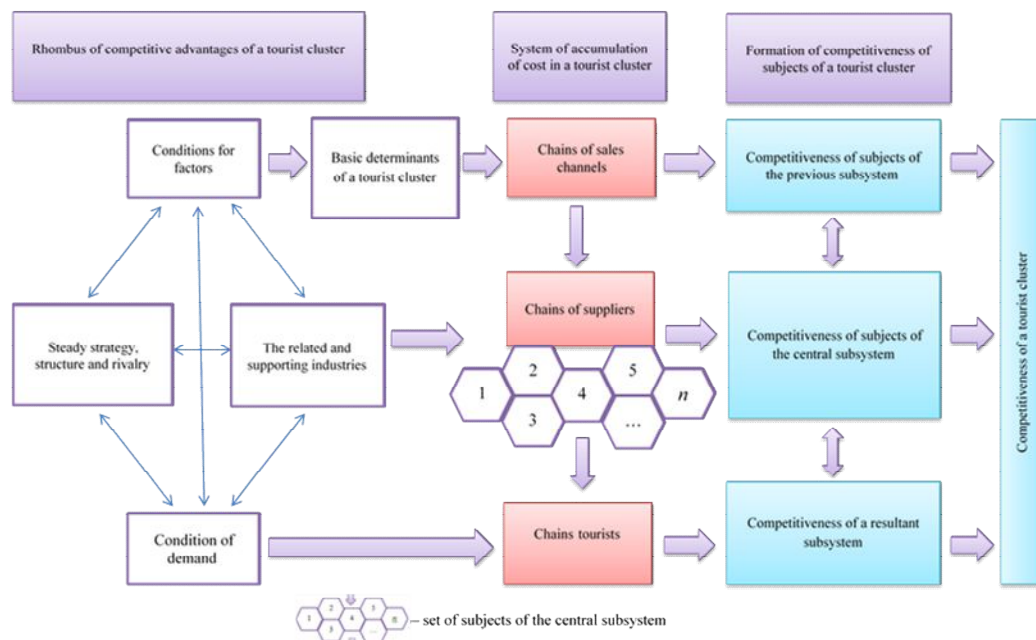


Figure 1. Mechanism of forming of competitiveness of a tourist cluster

This approach assumes creation of a competitive rhombus in which tops determinants of competitive advantages of an object are placed. According to the rule of a rhombus four attributes are a basis of competitive advantages of an object: conditions for factors, demand status, the related and supporting industries, steady strategy structure and rivalry [1, 26-28]. Each of these attributes both jointly, and separately creates space of functioning of the industries of regional economy. The research of competitiveness of a tourist cluster on the basis of a competitive rhombus allowed authors on the basis of [6] to construct the scheme of interrelation of attributes of competitiveness and the system of accumulation of cost in a tourist cluster submitted in figure 1.

The approach developed by M. Porter is considered by authors in relation to mesolevel, namely, to forming of competitiveness of a tourist cluster of the region. The universality and at the same time a multiaspect of model of "a competitiveness rhombus" provides a possibility of identification, systematization, assessment and analysis of a complex of the determinants creating competitiveness as separate industry, industry cluster, and regional economy in general [29-33].

At the same time authors establish direct link between attributes of a rhombus of competitive advantages of a tourist cluster, system of accumulation of value in a tourist cluster and competitiveness of the subjects which are its part. Positive development of conditions for production factors, strengthening and gain of the sector of the related and supporting industries, stability of strategy and coherence of actions of subjects and also increase in demand positively affect growth of

an indicator of competitiveness of subjects of all subsystems of a cluster.

The system of accumulation of cost in a tourist cluster includes subjects of three levels: subjects of the previous subsystem, subjects of the central subsystem and subjects of a resultant subsystem. Subjects of the previous subsystem are so-called "chains of sales channels" in a tourist cluster. The subjects providing access for consumers to a tourist product and to information on it – travel agencies, tour operators, transport companies, information bureaus, Internet resources (the system of online armoring), etc. concern them. Along with providing access for the consumer to a tourist product of "a chain of sales channels" perform function of advance and forming of awareness of the target markets and about a product as an object of tourist interest, and about a tourist cluster. Subjects of "a chain of sales channels" can be divided on the basis of their belonging to a certain region – into internal and external. Both the first, and the second provide access for the consumer of services to a tourist's product, but at the same time they can be placed both in the region of stay of tourists, and beyond its limits. This feature shows interrelation and interconditionality of subjects of industry (tourist) clusters of certain regions. Both external and internal subjects of "a chain of sales channels" provide dissemination of information and forming of attractive image of the certain region as object of tourism in consciousness of target groups of consumers. It is as a result supposed that the competitiveness of the previous system of a tourist cluster develops on the basis of private indicators of competitiveness of the subjects which are its part.

Besides, it is important to note that in structure of the previous subsystem of accumulation of cost in a tourist cluster, the system of determinants (indicators) which are basic in relation to forming of its competitiveness which in M. Porter's model corresponds to an element of "a condition for factors" is selected. Factor conditions represent a starting point of forming of key competences and competitive advantages of an object. These determinants include base characteristics and conditions of the environment which induce a functional field of forming of competitiveness of subjects. According to M. Porter [1] model factors include the following components: human resources, natural resources, capital, scientific and information potential, infrastructure. In relation to a tourist cluster climatic, economic, welfare factors are key. They cause existence and a possibility of building of the tourist resources in structure of a cluster making a basis for its subsequent development.

Subjects of the central subsystem are "kernel" of a tourist cluster. They are presented by "chains of the suppliers" including subjects of placement and entertainment. The specifics of a subsystem of this level are that it is created by subjects which belong both to tourist, and to other clusters – food, trade, cultural, transport, medical, construction, information technologically, agricultural. Moreover, subjects of this subsystem can be distributed on subjects of direct and indirect (incidental) interaction with groups of consumers. Subjects of direct interaction are directly oriented to satisfaction of tourist requests of target groups of consumers in the place of stay. These are the organizations of the sphere of retail trade, the industry of excursions and entertainments, spheres of hospitality and public catering, information, transport services. Subjects of indirect interaction with consumers are the organizations of health care, construction, agriculture, law enforcement agencies. Their functional role is providing. Activity of these subjects is not connected with the main service of a tourist cluster; however the level of their effectiveness affects quality of functioning and development of the tourist sector of the region. The complexity of this subsystem demonstrates that the tourist cluster is not the isolated education, and its competitiveness is maintained by subjects representatives of other accompanying, related industries. It proves existence of communication of the central subsystem with such components of a rhombus of competitive advantages as the related and supporting industries and also steady strategy, structure and rivalry. It is also necessary to pay attention to specifics of competition between subjects of this subsystem. Besides that they compete in fight for attention of target groups of consumers, they also support each other, providing with joint efforts increase in attractiveness of the

region and increase in tourist flow and interest from potential groups of clients. Therefore in this case the synergy effect evolves from the joint, mutual, network competition of subjects of the central subsystem of a tourist cluster. The narrowness of communications, stability of strategy, degree of concentration and sharpness of the competition among these subjects provides forming, strengthening and improving competitiveness of the central subsystem and in general a tourist cluster.

At last, the resultant subsystem of a tourist cluster is presented by "chains of tourists". In structure of a rhombus of competitive advantages it characterizes the "demand status" element. It should be noted that it is not quite correct to estimate competitiveness of consumers of tourist's products as subjects of a tourist cluster. Proceeding from it, the competitiveness of a resultant subsystem is measured on the basis of the indicative approach assuming definition and assessment of determinants (indicators) of this subsystem, such as tourist flow, growth rates of a flow of tourists, social and demographic, behavioral and psychographic characteristics of consumers, degree of their satisfaction, etc.

Thus, the general competitiveness of a tourist cluster forms on the basis of competitive advantages of subjects of subsystems at each level.

3. Results

This study was designed to identify the areas of research in the field of the tourism supply chain in economy and development. Important aspect of a research of a regional tourist cluster is assessment of its competitiveness, for the purpose of the subsequent development of its potential, improvement and increase in competitive positions and attractiveness of the region, as in terms of tourism, and investments. Synthesis of the determination of competitiveness formulated by scientists [8] allowed selecting several approaches on the basis of which the definition of this concept is carried out:

1. The competitiveness is represented as ability and property of objects of a message competition and assumes existence of compliance and/or superiority over similar objects.
2. The competitiveness is connected with ability of an object to correspond to requests and to satisfy needs of target groups of consumers on an equal basis or better, than competitors.
3. The competitiveness is the determining factor of accumulation of financial results and efficiency of economic activity, expressing ability of an object to make profit and to conduct effective production activity.

4. The competitiveness can be also treated as set of the competitive advantages of an object providing it superiority over similar objects.

5. The competitiveness of an object is characterized by the stability of situation in the market connected with the occupied share of the market and market force of influence on behavior of competitors.

6. The competitiveness is considered as the resultant object property forming on the basis of interaction of the elements of different level making it, coherence of management of which provides success in gaining the steady leading positions. So for example, the competitiveness of goods and services affects competitiveness of the enterprise which in turn defines competitiveness of the industry, a cluster and as a result – competitiveness of the region and national economy.

It is necessary to consider also properties of competitiveness, such as relativity, dynamism, multifactor, multilevelness and objectivness [8].

The analysis of approaches to a definition and selection of properties of competitiveness allowed authors to formulate the generalized determination of competitiveness of a regional tourist cluster. So, the competitiveness of a regional tourist cluster represents its special relative, dynamic property characterizing its ability to correspond to requests

of target groups of consumers based on the system of interaction of elements subjects of the previous, central and resultant subsystems.

That the competitiveness of a tourist cluster forms on the basis of competitiveness of the subjects which are its part authors offer calculation of a system of the indicators allowing to estimate competitiveness of a regional tourist cluster (table 1).

This system includes integral and private indexes of competitiveness:

- integrated index of competitiveness of a regional tourist cluster;
- the private index of competitiveness on the basis of indicators of the previous subsystem of a tourist cluster;
- private index of competitiveness of subjects of the previous subsystem of a regional tourist cluster;
- private index of competitiveness of subjects of the central subsystem of a regional tourist cluster;
- the private index of competitiveness on the basis of indicators of a resultant subsystem of a tourist cluster.

At the same time private indexes are calculated concerning two directions of assessment, first, for impact assessment of indicators (external factors) on competitiveness of a system, secondly, for assessment of competitiveness of subjects as a part of the corresponding subsystems.

Table 1. System of indicators of assessment of competitiveness of a regional tourist cluster

| Levels of a system of accumulation of cost in a tourist cluster | Indicators | Calculation formula |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Previous subsystem | The private index of competitiveness on the basis of indicators of the previous subsystem of a tourist cluster | $I_{comp ASF} = \sum_{i=1}^n \frac{ASF_i + \dots ASF_n}{ASF_i^* + \dots ASF_n^*}$ <p>ASF_i – mark level of assessment of a status of the i-indicator of the previous subsystem of a tourist cluster</p> <p>ASF_i^* – mark level of assessment of a status of the i-indicator of the previous subsystem of a reference tourist cluster</p> <p>n – the number of the evaluated indicators of the previous subsystem of a tourist cluster</p> |
| | Private index of competitiveness of subjects of the previous subsystem of a tourist cluster | <p style="text-align: center;">$Max=1$</p> $I_{comp AS} = \sum_{i=1}^n \frac{AS_i + \dots AS_n}{AS_i^* + \dots AS_n^*}$ <p>AS_i – mark level of assessment of competitiveness of the i-subject of the previous subsystem of a tourist cluster</p> <p>AS_i^* – mark level of assessment of competitiveness of the i-subject of the previous subsystem of a reference tourist cluster</p> <p>n – the number of the evaluated subjects of the</p> |

| | | |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | previous subsystem of a tourist cluster |
| Central subsystem | Private index of competitiveness of subjects of the central subsystem of a tourist cluster | $I_{comp\ CS} = \sum_{i=1}^n \frac{CS_i + \dots + CS_n}{CS_i^* + \dots + CS_n^*}$ $Max=1$ <p>CS_i – mark level of assessment of competitiveness of the i-subject of the central subsystem of a tourist cluster</p> <p>CS_i^* – mark level of assessment of competitiveness of the i-subject of the central subsystem of a reference tourist cluster</p> <p>n – the number of the evaluated subjects of the central subsystem of a tourist cluster</p> |
| Resultant subsystem | The private index of competitiveness on the basis of indicators of a resultant subsystem of a tourist cluster | $I_{comp\ RSF} = \sum_{i=1}^n \frac{RSF_i + \dots + RSF_n}{RSF_i^* + \dots + RSF_n^*}$ $Max=1$ <p>RSF_i – mark level of assessment of a status of the i-indicator of a resultant subsystem of a tourist cluster</p> <p>RSF_i^* – mark level of assessment of a status of the i-indicator of a resultant subsystem of a reference tourist cluster</p> <p>n – the number of the evaluated indicators of a resultant subsystem of a tourist cluster</p> |
| Integrated index of competitiveness of a tourist cluster | | $I_{comp} = I_{comp\ ASF} + I_{comp\ AS} + I_{comp\ CS} + I_{comp\ RSF}$ $Max=4$ |

Conclusion

Supply chain in tourism industries and its clustering can be main core. The research and justification of the mechanism of forming of competitiveness of a regional tourist cluster is the important direction of increase in competitive positions as cluster, so the region and a national economic system. At the same time it should be noted that the offered approach is applicable concerning assessment of competitiveness not only tourist, but also other clusters. In this case correction of subjects and determinants of the previous, central and resultant subsystems is necessary. Use of the similar mechanism promotes identification of the key subjects and determinants of a regional cluster creating its competitive advantages and also adoption of the effective management decisions directed to improvement of strategy processes of functioning of subsystems.

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