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Two-level triadic descryption method implications for the tourist cluster index formula

Método de descripción triádica de dos niveles para la fórmula del índice del grupo turístico

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ABSTRACT:
The article derives the formula of the tourist cluster index by identifying basic characteristics of the 'tourist cluster" concept. Each of the characteristics reveals geographical and climatic features of the territory, historical sites, recreational and governmental facilities, leisure activities, physical infrastructure, information infrastructure, and hospitality. The formula for the tourist cluster index is based on a categorical split-method of triadic decryption. The method contributes to the development of the cluster's theory, enabling the identification and organizational planning of regional tourism.
Keywords: tourism cluster, leisure projects, recreation infrastructure, triadic decryption

RESUMEN:
El artículo deriva la fórmula del índice de clúster de turismo mediante la identificación de las características básicas del concepto de "clúster turístico". Cada una de las características revela características geográficas y climáticas del territorio, sitios históricos, instalaciones recreativas y gubernamentales, actividades recreativas, infraestructura física, infraestructura de información y hospitalidad. La fórmula para el índice de clúster de turismo se basa en un método de división categórica de descifrado triádico. El método contribuye al desarrollo de la teoría del clúster, lo que permite la identificación y planificación organizativa del turismo regional.
Palabras clave: Clúster de turismo, proyectos de ocio, infraestructura recreativa, descifrado triádico.

1. Introduction

At present, Russian science has not yet derived a formula for the index of the regional tourist cluster, which is an essential condition for the effective implementation of the number of country's economic tasks. In this regard, there are difficulties for the effective functioning of tourism in the region, based on the cognition of all stakeholders, which could exploit the

capabilities of the tourism cluster. The formula proposed by the authors in a timely manner will help identify and eliminate shortcomings that negatively affect the economy of the above-mentioned industries. Analysis of related publications, where aspects of this problem were considered is conducted, highlighting the research question.

2. Methodology

The goal is a theoretically justify the derivation of the regional tourist cluster formula, containing specific features that are able to determine the level of tourism in the region.

The main objectives of the study are as follows:

1. To conduct theoretical studies of the existing definitions of the "tourist cluster" concept;
2. To highlight the basic repeating characteristics inherent to the tourist cluster;
3. To decrypt the basic repeating characteristics;
4. To derive the index of the regional tourist cluster.

In order to solve this problem, the categorical method of the two-level triadic decoding of the basic concept (Boush, 2013) was applied as a methodology used to solve a wide range of scientific, educational and project tasks. This method has been actively used since the 2000s to the present. It is a tool that characterizes an object not only as a whole, but also consistently details it in the triads of categories framework.

At the first level of the method application, the desired category is deciphered by a triad of categories that most accurately reflect its essence (first level deciphering categories). Further, the decrypting categories of the first level are subjected to the same decoding.

3. Results

A number of Russian and international scholars have contributed to this field of study such as: A. Kizim, B.Capone, J.Ferreira, B. Lundvall, R.Desrochers, A.Boyko, and others. Identifying the concept of tourism cluster, they do not derive the formula of the cluster index, which is essential for the determination of tourism conditions in the region. Some authors propose including customs and tariff policies into the topic. (Medvedeva et al, 2016)

Within the research question, the main objectives of the study are to conduct theoretical studies of the existing definitions of the concept "tourist cluster"; highlight the basic repeating characteristics inherent in the tourist cluster; decrypt the basic repeating characteristics; and derive the state index of the regional tourist cluster.

The proposed paper's premise is based on the analysis of the definitions, presented in Table 1. In the definitions there are often repetitive characteristics, such as tourist potential, cultural and historical heritage, and tourist infrastructure. The research question is a theoretical justification of the formula, which calculates the state index of a regional tourist cluster, taking into account the specific features that can determine the level and the conditions tourism in the region.

The categorical split method of two-level triadic decryption was applied to the basic concept. (Lebedinskaya, 2015)

At the first level of decryption, the required category is revealed by three concepts that most accurately reflect the natural component. At the second level, the procedure is repeated for descriptive concepts. (Lebedinskaya, Konshina, 2016)

So, summarizing the results of the analysis given in Table 1, the authors identify the following characteristics for the concept "tourist cluster", as follows: tourist potential, cultural and historical heritage, and tourist infrastructure. The authors' interpretation of these characteristics is given in the Table 2.

The presented decoding allows the authors to derive the following formula for the state index of a regional tourist cluster:

Where Isrtk is the state index of the regional tourist cluster; Iti is an index of tourist infrastructure; Ikin is an index of cultural and historical heritage.

The tourist infrastructure index (Iti) is calculated as follows:

Where Iii is the information infrastructure index; Ig is the hospitality infrastructure index; Iphi is an index of physical infrastructure.

The formula for the cultural-historical heritage index (Ikin) is as follows:

Where Iod is an index of leisure facilities; Iio - an index of historical objects; Iro - an index of recreational facilities.

Thus, the detailed formula of the state index of a regional tourist cluster takes the following form:

The index does not take into account the tourist potential, because climatic, geographical features, natural objects of the territory remain relatively constant.

To do the findings of the study using the method of the basic concept two-level triadic decryption, the formula of the regional tourist cluster state index is derived. This allows diagnosing it in a very short term, and identifying and eliminating shortcomings quickly, which will have a generally positive impact on the cluster's processing.

4. Discussion

Currently, investment in the tourism sector of the economy is one of the most promising and needed method among investors. Leading experts in the field of investment in tourism claim that this industry accounts for more than 30% of the global market for services. Before investing to the tourist sector of the regional economy, it is necessary to identify its conditions, which characterizes the investment potential of the territory. Therefore, in authors' opinion, the rationale for the regional tourism cluster index formula is essential, whereas research in this area requires a detailed consideration.

5. Conclusion

The proposed formula makes a positive contribution to the development of cluster theory as well as allows determining the quantitative level of the situation, showing the real conditions of the tourism industry of the region.

The possibilities of adapting this formula are possible in a complex analysis of the state of the tourism sector of the economy in order to outline the directions of necessary development. In terms of minimal investment and resources, it will bring the desired result in the short term by attracting investments, creating new jobs, improving tourism infrastructure, increasing tourist flow, increasing the revenue component of the regional budget, and so forth.

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