Assessment of the competitiveness of tourism services in the region: modern realities

Evaluación de la competitividad de los servicios turísticos en la región: realidades modernas

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ABSTRACT

The purpose of the article is to develop theoretical provisions and methodological support for assessing the competitiveness of tourist services as the basis of a tourist destination. And the methods of factor analysis, the method of multi-criteria assessment, the correlation-regression method, the methods of indicative planning and economic and mathematical modeling were used. Some problems have been solved using comparison and linear optimization methods. The article explores theoretical and methodological approaches to the evaluation of tourist services in a constantly changing competitive environment and the actualization of new technologies. The methods of assessing and transforming the quality and increasing the competitiveness of tourist services within the regional recreation and tourism market were studied using the example of the Republic of Tatarstan, which predetermined the relevance of the stated topic, the purpose of the study and the tasks set. The practical value is confirmed by the possibility of using the results obtained in the development strategy of tourist organizations by regional government bodies, as well as in the activities of federal and regional tour operators.

Keywords: recreation, competition, research, destination, service, methodology.

RESUMEN

El propósito del artículo es desarrollar disposiciones teóricas y apoyo metodológico para evaluar la competitividad de los servicios turísticos como base de un destino turístico. Se han utilizado los métodos de análisis factorial, el método de evaluación multicriterio, el método de correlación-regresión, los métodos de planificación indicativa y de modelización económica y matemática. Algunos problemas se han resuelto mediante métodos de comparación y optimización lineal. El artículo explora los enfoques teóricos y metodológicos de la evaluación de los servicios turísticos en un entorno competitivo en constante cambio y la actualización de las nuevas tecnologías. Los métodos de evaluación y transformación de la calidad y el aumento de la competitividad de los servicios turísticos en el mercado regional de ocio y turismo se estudiaron utilizando el ejemplo de la República de Tatarstán, que predeterminó la pertinencia del tema planteado, el propósito del estudio y las tareas fijadas. El valor práctico queda confirmado por la posibilidad de utilizar los resultados obtenidos en la estrategia de desarrollo de las organizaciones turísticas por parte de los organismos gubernamentales regionales, así como en las actividades de los operadores turísticos federales y regionales.
1. INTRODUCTION

The tourist activity of Russians has significantly decreased in recent years due to the destructive impact of a number of processes, including the pandemic, the disruption of supply chains, the decline in entrepreneurial activity and GDP growth rates, the fall in the income level of the population and the quality of life of Russians, the decrease in the competitiveness of tourism services due to the lack of necessary infrastructure and low the level of quality of the Russian service, the complicated geopolitical situation, as well as the introduction of the sanctions regime by a number of countries (Official data of the Federal Agency for Tourism, n.d.; Withers, Wipperman, 2016; Zakharov, 2021; Khusaenov, Zhukovskaya, 2019).

In this connection, the key competitive positions of tourism growth are determined today mainly by its inbound directions, since the number of tour packages sold to the population over the past 2 years of outbound trips has decreased by 75%. Thus, it is relevant to create a competitive tourist “product” on the Russian market and stimulate the motivation of Russian tourists to travel within the country (Ministry of Economics of the Republic of Tatarstan, 2019; State Committee of the Republic of Tatarstan on Tourism, n.d.).

In this regard, the urgency of the problems of improving the methodology for assessing the competitiveness of tourism services in market conditions, systematizing scientific approaches to assessing competitiveness in the field of tourism, substantiating its economic nature and research criteria, developing a strategy for developing competitiveness for the largest organizations in the field of tourism services in a period of economic instability, expanding infrastructure space and recreation within the country as sanctions restrictions are lifted (Galimulina et al., 2016; Leonov, 2017; Ragimkhanov, 2023; Zhukovskaya, 2019).

In the indicated context, the assessment of the competitiveness of tourism services in a competitive environment is of great importance, and also confirms the relevance and importance of the chosen research topic.

2. METHODOLOGICAL FRAMEWORK

2.1. Theoretical basis of the study

The theoretical and methodological basis of the study are research works and methodological developments of researchers devoted to the problems of assessing the competitiveness of the tourism services sector, as well as federal and regional projects and programs aimed at developing domestic tourism and recreation.

2.2. Methodological basis of the study

The study summarizes the financial and analytical reports of tourism organizations, uses analytical studies of the National Project for the Development of the Tourism Industry of the Russian Federation and Increasing the Accessibility of Tourist Services, statistical data from the Federal State Statistics Service of the Russian Federation, data from the Rosstat statistical bulletin by region, abstracts and scientific articles from various all-Russian and international conferences on the topic of the dissertation.

2.3. Research steps

In the process of research (Ragimkhanov, Zhukovskaya, 2023a):
1. Specific features and methods for studying tourism services are systematized, which form the basis of tools for assessing competitiveness with the potential possibility of realizing the resources of tourism organizations in economic, scientific and innovative, organizational and managerial, marketing, financial areas of their activities, as well as being the basis for effective market interaction with other market entities, which allows diagnosing the level of development of the competitiveness of the tourism and recreational sector as a whole.

2. A matrix method for assessing the competitiveness of tourism services is proposed, which includes optimization of the competitive advantages of tour operators and travel agencies in price and product niches and involves the construction of a matrix of competitive advantages, which allows not only to systematize competitive advantages, but also to determine the competitive strategy for the development of meso-level tourism organizations.

3. A methodological toolkit for assessing the competitive status of organizations in the tourism and recreational sphere has been developed, containing a graphical and methodical decomposition of the integral indicator of competitiveness based on the theory of even subsets, which allow building a map of alternative growth strategies and assessing the current state of the tourist territory of the region.

4. A dynamic model is proposed that allows assessing the influence of variable factors on the competitive status of the tourist territory of the region in terms of performance and universality criteria at different time intervals and different comparison bases.

2.4. Theoretical and practical significance of the research results

Theoretical and practical significance of the study consists in the development of theoretical provisions and methodological approaches for assessing the competitiveness of tourist services based on the tourist destination. Practical significance is confirmed by the possibility of using the results obtained in the development strategy of tourist organizations by regional government bodies, as well as in the activities of federal and regional tour operators. The obtained theoretical, methodological and practical results of the dissertation may be of interest to a wide teaching audience of higher education and are applicable in the educational process in the disciplines "Economics of the service sector", "Competitiveness of the enterprise", "Industrial economics", "Tourism and recreation", "Regional economics" (Ragimkhanov, 2023).

The reliability of the methods contained in the work, practical recommendations and theoretical approaches is confirmed by the use of an array of statistical information, reports of tourist organizations of the Russian and regional tourism services market, as well as analytical data from the World Tourism Organization, Rosstat and Rostourism.

3. RESULTS

3.1. Systematized specific features and research methods of tourism services, which form the basis of competitiveness assessment tools

Based on the systematization of specific factors, a scientific approach to assessing the resource potential of the competitiveness of tourism services is substantiated, with the potential possibility of realizing the resources of tourism organizations in economic, scientific and innovative, organizational, managerial, marketing, financial areas of their activities, which are the basis of a competitive space, which allows in general, to diagnose the level of development of the competitiveness of the tourism and recreational sphere (Khusaenov, Zhukovskaya, 2017b; Ostapenko, 2020).
A feature of the study of the competitiveness of services in the field of recreation and tourism is the focus on expanding the potential resource capabilities of tourist organizations in their economic, scientific and innovative, organizational and managerial, marketing, financial activities, as well as on effective market interaction with other subjects of the tourist services market. It is concluded that the existing methods for assessing the competitiveness of tourism services in the interpretation of most authors do not meet the criteria of complexity, i.e. definitions are not objective, because do not take into account the specifics of tourist destinations and factors affecting the competitiveness of tourist services.

At the same time, it should be noted that the classification of scientific views in the study of the competitiveness of tourism services does not fully reflect the practical aspects of the activities of the service providers themselves, in particular, methodological assessment is not taken into account, taking into account the varieties (analogues) of existing methods, dividing into constituent blocks of scientific methods for assessing competitiveness tourist services.

Summarizing various scientific views in assessing the competitiveness of tourism services, we proposed a classification presented in Table 1.

**Table 1.** Classification of methods for assessing the competitiveness of tourism services, taking into account the directions of tourism (Ragimkhanov, Zhukovskaya, 2023b).

<table>
<thead>
<tr>
<th>Competitiveness assessment methods</th>
<th>Varieties (analogues) method</th>
<th>Components blocks of scientific methods</th>
<th>Typical for tourism destinations by type</th>
</tr>
</thead>
<tbody>
<tr>
<td>descriptive method (expert group)</td>
<td>Expert assessment method from the point of view of equilibrium theory</td>
<td>Comparative, logical, expert assessments, assessment based on the quality of services, costly, profitable</td>
<td>Domestic tourism, health tourism, cultural and educational tourism;</td>
</tr>
<tr>
<td>Complex method</td>
<td>Method of analogies from the standpoint of comparative advantage</td>
<td>Behavioral, structural, situational</td>
<td>Scientific tourism, business tourism, event tourism</td>
</tr>
<tr>
<td></td>
<td>Method of hierarchies by requirement profile and polarity profile</td>
<td>Optimizing, consistent</td>
<td>Ecological tourism</td>
</tr>
<tr>
<td></td>
<td>A method for assessing competitive advantages based on the construction of a &quot;polygon of competitiveness&quot;</td>
<td>Innovative reproduction, standardization</td>
<td>Youth tourism, family tourism, children's tourism</td>
</tr>
<tr>
<td></td>
<td>Matrix estimation method</td>
<td>Evaluation by price and product niches</td>
<td>Economic type of tourism, exclusive type of recreation</td>
</tr>
<tr>
<td></td>
<td>Optimization method based on SWOT analysis</td>
<td>Identification of the strengths and weaknesses of the enterprise,</td>
<td>Beach tourism, ski tourism, rural tourism, autotourism</td>
</tr>
</tbody>
</table>
The study of classical and modern scientific approaches in assessing competitiveness, based on a structural-resource approach, broken down into tangible and intangible resources, allows us to systematize specific factors that have both a positive (constructive) and negative (destructive) effect on the competitiveness of tourism services (Fig. 1).

As a result, the substantiation of the scientific approach in assessing the resource potential of the competitiveness of tourism services allows us to conclude that it is advisable to build a study on a set of integrated, analytical, evaluation methods, metrics, technologies, tools that are able in their plurality to perform a comprehensive analysis of the evaluation positions and form an effective competitive strategy for organizations of the tourist and recreational sphere. At the same time, an integral part of a comprehensive analysis should be an assessment of not only the resource potential, but also the pricing policy, which allows you to identify areas of market influence using price and non-price methods for determining competitive advantages. The emphasis is placed on the potential ability of the organizations of the tourist and recreational sphere to influence the price policy of the market through the strategy of optimal prices corresponding to the quality of the services provided.

3.2. A matrix method for assessing the competitiveness of tourism services is proposed.

The toolkit for assessing the competitive status includes a methodological component and a graphical part containing even subsets that allow assessing the current state of the tourist territory and compiling further

**Figure 1.** Systematization of specific factors in assessing the competitiveness of tourism services (Ragimkhanov, Zhukovskaya, 2022).
predictive development scenarios for organizations in the tourism and recreational sector. The graphical decomposition of the tools for assessing the competitive status begins with the construction of a graph of the state of competitiveness for organizations in the tourism and recreational sector (Fig. 2).

where $K_0$ and $K_1$-$8$ are key indicators for assessing competitive status; $S_1$-$4$ - crisis mini-phases, reflecting the level of development of the competitiveness of organizations in the tourism and recreational sector. Finding the tour operators of the region at the critical point of decomposition of the competitive status, depending on the crisis mini-phases ($S_1$-$4$) allows you to use the appropriate alternative development scenario and move to a favorable zone.

![Graphical decomposition of the competitive status assessment based on competitiveness indicators (Ragimkhanov, Zhukovskaya, 2022).](image)

The methodological component of the competitive status assessment includes the study of the integral indicator of the competitiveness of tourism services, based on the theory of even subsets by A. Kotans, which is proposed to be supplemented with the following components (Fatkhudinov, 2018, p. 45):

$$K_{int} = \sum_{i=1}^{N} K_i R_{hi}$$  \hspace{1cm} (1)

where $K_{int}$ is an integral indicator of the competitiveness of tourist services; $R_{hi}$ is the weight of the value of the service indicator in the group of analogues (even subsets); $K_i$ - competitiveness indicator relative to the value of the $i$-th indicator of the "sample" service, taken as a standard; $N$ is the number of even subsets.

The gradation of the competitive status of organizations in the tourism and recreational sphere is built depending on the empirically obtained values of the integral indicator of competitiveness, which is based on the theory of even subsets and the expedient division into eight intervals of value, each of which conditionally corresponds to the numbering of the competitiveness development scenario (Table 2).
Further scenarios for the development of organizations in the tourist and recreational sphere are built in such a way as to enhance the influence of positive factors that increase the competitive status. And vice versa, to minimize the impact of negative factors that weaken competitive positions and set the vector for optimizing development directions (Fedorova, 2020; George, 1994; Morozova et al., 2015).

As a result, the proposed methodological assessment toolkit allows for a comprehensive analysis of key indicators of the competitive status of organizations in the tourism and recreational sector of the Republic of Tatarstan; use alternative scenarios for the development of the competitiveness of tourist services and justify the further application of measures aimed at strengthening the competitive position of the tourist territory of the region under study at the mesolevel.

3.3 Methodological tools for assessing the competitive status of organizations in the tourism and recreational sphere have been developed

In modern economic conditions, the competitiveness of tourism services is focused on the constant search by tourism organizations of such methods that could meet the conditions of market competition and the demand of the consumer audience. From the point of view of the methodology for assessing competitiveness, the matrix method of assessment generalized by us is effective, based on the identification and grouping of competitive advantages by price category (Table 3).

Table 3. Matrix of competitive advantages in the price category of tourist services (Ragimkhanov, 2023).

<table>
<thead>
<tr>
<th>Group</th>
<th>Change in pricing strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group &quot;A&quot;: market leaders (organizations of direct)</td>
<td>A1 ≥10 Competitive position is favorable (active use of a high price)</td>
</tr>
</tbody>
</table>
As a result of optimization of competitive advantages in terms of price and product niches, it is advisable for tourism organizations to take into account the proposed matrix of competitive advantages as a basis for monitoring the expansion and variation of market share and assessing the scale of competitive positions in the direction of tourism services provided and the outlined range of competition.

A matrix of competitive advantages by price and product niches, which allows tourism organizations to focus on the following key areas: concentration on the consumer market segment, including “price leadership” and “product leadership”; consumer differentiation and expansion of the range of tourist services; territorial leadership; choice of pricing strategy, depending on the type of domestic tourism.

The level of intensity of competitive advantages (Ti) is proposed to be determined using the growth rate of the market share of subjects in the sphere of tourism services according to the following formula (Lipatova, Shapovalova, 2012).

\[
Ti = \sum_{i=1}^{t} (Di - Dit) / t * m * 100\%
\]

where Di is the time period of intensity of competitive advantages; Dit is the market share of the i-th organization in the period of time; mi is the number of years.

Thus, the matrix method for assessing the competitiveness of tourism services makes it possible to assess the level of intensity of competitive advantages, determine the matrix of competitive status in the market, determine the range of competition of subjects of the tourism and recreational sphere, and subsequently determine the competitive strategy of tourism organizations of the meso-economic level, according to changes in price development strategies.

3.4. A dynamic model is proposed that allows assessing the influence of variable factors on the competitive status of the tourist territory of the region.
An exhaustive idea of the competitive status of the tourist territory of the region can only be obtained taking into account the dynamics of the study of its variable factors, therefore, in this work, we proposed to use a mechanism for increasing competitiveness, which is capable of providing both direct and additional effects.

The assessment of the effect of the application of the mechanism for increasing competitiveness was carried out using the linear regression method, which allows you to confirm the reliability of the assessment results based on the processing of an array of statistical information, using the comparison basis and various time intervals. As a result, we have calculated an econometric model, which is based on a sample of official statistics on the tourism vector for a 10-year period, the purpose of which is to assess the degree of influence of the sample variable factors of the model on the competitive status of the tourist territory of the region.

The econometric model was calculated using the linear regression equation according to the following formula:

\[ y = a + b_1 \cdot x_1 + b_2 \cdot x_2 + \cdots + b_k \cdot x_k + \varepsilon \]  

(3)

As components in the dissertation, 33 variable factors were used, including: economic, socio-demographic, environmental, transport and logistics, among which, due to limited volume, 4 factors were selected in the abstract, which have a low cross-correlation coefficient. Empirically constructed time series were taken into account for the study period from 2012 to 2021 inclusive. Linear regression graphs are presented in Figs. 3-6 (Safargaliev et al., 2023).

**Figure 3.** Linear regression of the volume of paid services in the field of tourism and the number of persons accommodated in collective accommodation facilities in the Republic of Tatarstan.

**Figure 4.** Linear regression of the volume of paid services in the field of tourism and public catering turnover in the Republic of Tatarstan.
As a result, the econometric model takes the following equitation:

$$y = -2439 + 2.09x_1 + 0.064x_2 - 18.28x_3 + 25729x_4 + \varepsilon$$  \hspace{1cm} (4)  

The coefficient of determination $R^2$ shows the share of the explained variation of the dependent variable by 99.1%. To test the effectiveness of the obtained results of the econometric model, it is advisable to check the typical problem of random errors for time series using autocorrelation testing according to Durbin–Watson statistics (Table 4).

**Table 4. Obtained values of multiple regression.**

<table>
<thead>
<tr>
<th>No.</th>
<th>$e_i$</th>
<th>$e_{i-1}$</th>
<th>$(e_i - e_{i-1})^2$</th>
<th>$(e_i)^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0352</td>
<td></td>
<td></td>
<td>386.4160</td>
</tr>
<tr>
<td>2</td>
<td>-19.6575</td>
<td>0.0352</td>
<td>387.8029</td>
<td>375.0158</td>
</tr>
<tr>
<td>3</td>
<td>27.3864</td>
<td>-19.6575</td>
<td>2213.1269</td>
<td>518.1398</td>
</tr>
<tr>
<td>4</td>
<td>-100.7557</td>
<td>27.3864</td>
<td>16420.3914</td>
<td>10151.7028</td>
</tr>
<tr>
<td>5</td>
<td>-123.5183</td>
<td>-100.7557</td>
<td>518.1398</td>
<td>15265.7809</td>
</tr>
<tr>
<td>6</td>
<td>144.2568</td>
<td>-123.5183</td>
<td>71 703.5360</td>
<td>20 810.0292</td>
</tr>
<tr>
<td>7</td>
<td>74.3020</td>
<td>144.2568</td>
<td>4893.6817</td>
<td>5520.7816</td>
</tr>
<tr>
<td>8</td>
<td>-5.2226</td>
<td>74.3020</td>
<td>324.1574</td>
<td>27.2756</td>
</tr>
<tr>
<td>9</td>
<td>102.9585</td>
<td>-5.2226</td>
<td>11,703.1504</td>
<td>10600.4510</td>
</tr>
<tr>
<td>10</td>
<td>-99.7849</td>
<td>102.9585</td>
<td>41 104.8658</td>
<td>9 957.0179</td>
</tr>
<tr>
<td>$\Sigma$</td>
<td>99.7849</td>
<td></td>
<td>155268.8523</td>
<td>73460.4708</td>
</tr>
</tbody>
</table>

Significance testing by the Fisher criterion showed the following result (Ragimkhanov, Zhukovskaya, 2023b):
The reliability of the econometric model is confirmed by the values of the Fisher criterion: the calculated Fisher coefficient is greater than the critical one from the table value of the Fisher criterion $F_{crit}$ at a significance level $F (P-value) < 0.05$; degrees of freedom $v_1 = k = 5$; $v_2 = nk - 1 = 4$, which means the regression equation is statistically significant, and the value of the resulting $F$ model is 129.12, which is significantly higher than the tabular indicator. The method for detecting autocorrelation is testing according to Durbin-Watson statistics:

$$d = \frac{\sum_{i=2}^{n}(e_i - e_{i-1})^2}{\sum_{i=1}^{n}(e_i)^2}$$

Then we obtain the following calculated value (Ragimkhanov, Zhukovskaya, 2022):

$$d = \frac{155268}{73460} = 2.11$$

The resulting coefficient is in the range $1.5 < d < 2.5$, which corresponds to a high probability of the absence of autocorrelation. The linear correlation coefficient $(R)$ of the resulting dynamic model is 0.9139, which allows us to conclude that the mathematical relationship is of a very high quality.

Summarizing the results obtained, we note that the mechanism for increasing the competitiveness of the tourist area was tested in the activities of the federal tour operator "Biblio-Globus", the regional tour operator "Glamping Povolzhye", at various time intervals (for 10 years), an extensive comparison basis (RF, Volga Federal District), which confirms the universality of application by the relevant implementing acts.

Therefore, the mechanism for increasing the competitiveness of a tourist area is quite effective, it allows assessing the impact of variable factors on the competitive status of the tourist vector of development of the regional economy, identifies the advantages and disadvantages of tour operators in a competitive environment, while allowing you to enhance positive factors and minimize negative ones, and also allows you to identify resource potential and to form measures aimed at strengthening the competitive positions of organizations in the tourism and recreational sphere.

4. DISCUSSION

The study of methodological approaches to assessing the competitiveness of tourism services was carried out by such authors as P. Heine and E. Hitters (1998), F. Hayek and T. Hutton (1996), R.R. Khusaenov and I.V. Zhukovskaya (2017a, 2019), E. Chamberlin (1996), N.S. Morozova et al. (2015), J. Schumpeter (1982), A. Ya. Kotans (2019), G. Kron (1978), J. Richards (2005), J. Robinson (2003) and others. Meanwhile, the theoretical and methodological approaches to assessing tourism services in a constantly changing competitive environment and updating new technologies, methods for assessing and transforming the quality and increasing the competitiveness of tourism services within the Russian recreation and tourism market have not been studied deeply enough, which determines the subject of the work, the purpose of the dissertation research and its objectives.

5. CONCLUSION

The conducted research allows expanding the theoretical understanding of the structural elements of the competitiveness of tourist services by distinguishing between their decomposition and terminological
clarifications. The application of the proposed methods will allow assessing the impact of competitiveness factors not only on the current state of the tourist territory, but also on the competitive status of the tourist vector of the regional economy as a whole. The prospects of the study are to develop a concept for the development of the competitiveness of tourism services, which will reveal the tourism and recreational potential of industry growth, its innovative focus, corresponding to global trends in service innovations in the field of tourism. All this will make it possible to form a competitive tourist product and motivate tourists to travel within the country.

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