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Abstract. With the deepening of globalization processes, competition between countries, regions and cities is becoming intense in almost all aspects of the economy, including in the field of tourism. Today's tourist has a wide range of options and requirements for leisure or business trips. Therefore, it is important for countries to carry out long-term planning in the field of tourism with an objective assessment of their strengths and weaknesses and their global competitiveness.

Keywords. Electricity, production, electricity supply, net profit, profit before tax, income tax, econometric modeling.

The COVID-19 pandemic has fundamentally changed the environment in the field of tourism, competitiveness has emerged as a key to stability and a solution to the situation in host countries [4]. According to the widely spread definition based on the traditional approach, competitiveness is "the level of a country's ability to produce goods and services that meet the demands of international markets under free and fair market conditions and maintain and increase the real income of the population in the long term" [6]. According to the broad macroeconomic interpretation of the World Economic Forum (WEF), competitiveness consists of "a set of institutions, policies and factors that determine the level of efficiency of a country." In turn, definitions related to tourism competitiveness are also diverse. At the heart of them are factors consisting of basic resources and attractions, supporting factors, application of strategic planning, situation and conditions (political situation, geographical location, etc.) [5]. This study is devoted to evaluating the impact of competitiveness and its parameters on the number of visitors to the country. Due to the growing socio-economic importance of tourism, a number of methods of assessment and monitoring of national competitiveness of tourism have been developed [2, 3, 5].

One of the most important developments on the competitiveness of destinations is the Tourism Competitiveness Index (TTCI - Tourism and Travel Competitiveness Index) presented by VEF. Starting from 2021, this index was improved and changed to "Tourism Development Index" [7]. Since the tourism industry has not fully recovered after the pandemic, it was considered appropriate to conduct analyzes based on the data of the previous period. The TTCI index provides a national assessment of the competitiveness of the tourism sector and serves as a measure of the success of government measures in the tourism sector. This index is calculated on the basis of four important groups of variables that have a significant impact on tourism competitiveness. These groups include the sub-indexes of (1) tourism supporting environment, (2) tourism policy and enabling conditions, (3) infrastructure, and (4) natural and cultural resources. In turn, each sub-index is given by several criteria of tourism competitiveness, 14 criteria are presented in total (Table 1). Criteria are also evaluated using several variables.

Table 1
Tourism competitiveness criteria

Environment supporting tourism	Tourism policy and secondary conditions
Business Environment Security Health care and hygiene Human resources and labor market State of Information Technology	Industry priority International openness Price competitiveness Environmental sustainability
Infrastructure	Natural and cultural resources
Air transport infrastructure Land and water transport infrastructure Infrastructure of tourist services	Natural resources Cultural resources

The model for assessing the importance of competitiveness factors in the world tourism market, represented by international tourist flows, is depicted in Figure 1. The proposed model 15 is based on the development of VEF's Tourism and Travel Competitiveness Index, using 14 destination competitiveness indicators as explanatory factors, and they are "Kij" (i=1,...,14; j=1...140).

We use the following linear-logarithmic model to measure the impact of TTCI and its sub-indices on the volume of international tourist flows, based on empirical models of modeling the influence of international indices:

$$(1) \quad i=1, \dots, 140; \quad j=1, \dots, 14$$

where, the dependent variable is the logarithm of the average number of visitors to each country during 2009-2017; K_{ji} - TTCI sub-indices for 2019 (K_{1i} - business environment; K_{2i} - security; K_{3i} - health care and sanitation; K_{4i} - human resources and labor market; K_{5i} - IT situation; K_{6i} - priority of the sector for the country; K_{7i} - international openness; K_{8i} - price competitiveness; K_{9i} - environmental stability; K_{10i} - air transport infrastructure; K_{11i} - surface and water transport infrastructure; K_{12i} - infrastructure of tourist services; K_{13i} - natural resources; K_{14i} - cultural heritage and business trips); $\log(\text{GDP})_i$ is the logarithm of GDP values per capita and $\log(\text{population})_i$ is the logarithm of the country's population [1]. The last two variables are included to check the statistical stability of the results.

One of the goals of our research is to assess the impact of tourism international competitiveness on tourist flows. In the process of studying the literature, we witnessed that factors such as income, distance, climate, natural and cultural resources are taken into account when forecasting tourism flows. In this scientific work, the hypothesis that "destination competitiveness is an important factor determining international tourist flows" was put forward, and the validity of the hypothesis was empirically substantiated. To test the hypothesis, we estimate the following expression on a sample of 117 countries:

$$(1) \quad i=1, \dots, 140; \quad j=1, \dots, 14$$

First of all, correlation indicators between variables were determined (Table 2). Correlation Analysis International Visitor Number (TA), International Tourism Receipts (TR) and International Tourist Flow (TA) Supporting Environment Tourism Policy and Secondary Conditions Infrastructure Natural and Cultural Resources $K_6, K_7, K_{13}, K_{14}, K_8, K_9, K_{10}, K_{11}, K_{12}, K_1, K_2, K_3, K_4, K_5$ confirmed that there is a strong correlation between 16 competitiveness indices (TTCI). A high correlation was found



between the number of international visitors and the information technology status, air transport infrastructure, tourist services infrastructure and cultural heritage sub-indices. It was also confirmed that there is a moderately strong correlation between TA and sub-indices of health care and sanitation, security, human resources and labor market, international openness, sector priority and natural resources. Interestingly, TTSI's sub-indices of business environment, price competitiveness and environmental sustainability also proved to have no significant effect on the number of visitors. In order to determine the nature of the relationship between the number of international visitors and the index of tourism competitiveness, we describe them in the form of a scatter diagram. Figure 2 shows that there is a linear relationship between the variables. Therefore, we have the right to conclude that the model presented above was chosen correctly.

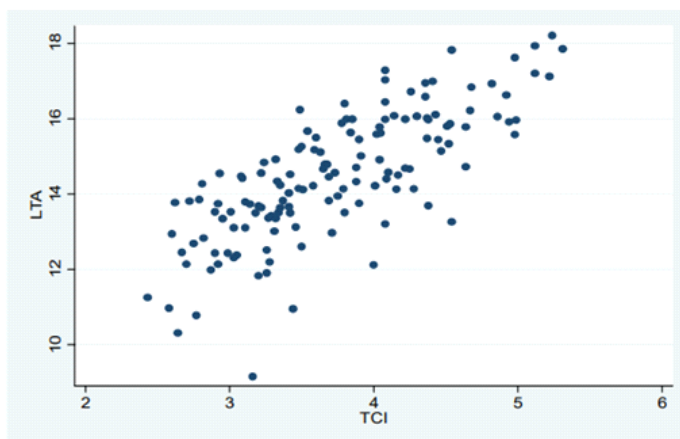


Figure 2. Scatter diagram of the relationship between the number of international visitors and the tourism competitiveness index

In order to control the validity and reliability of the results, the GDP and population variables of the obtained countries were included. Variables were correctly assessed in terms of sign and statistical significance in all regressions. The GDP of the countries has a positive sign and is statistically significant at the 1% level. The quantitative meaning of the coefficient means that if the country's GDP is higher by 1%, tourism flows to it will be from 0.34% to 0.8% or more than 0.5% on average. Therefore, the number of international visitors to countries with high GDP will be relatively high. The population indicator (POP) variable is also statistically significant at 1% and has a positive sign. The robustness of the obtained results was checked in several ways. For example, taking into account that the development of tourism market relations in Eastern European and CIS countries is different from other countries, regressions were performed based on excluding these countries from the sample, but no significant changes were observed in the results. This means that the results presented in Table 3 are rigorous, reliable and unbiased. Most importantly, the influence of TTSI and all its sub-indices except K1 (business environment) and K8 (price competitiveness) on the number of visitors was found to be statistically highly significant, such a result can also be observed in correlation analyses. Therefore, the country's competitiveness in the international tourism market has a significant impact on the flow of international tourists. That is, a 1 point increase in TTCI corresponds to a 1.87% increase in the volume of tourist flows to the country.

Similarly, the increase of other sub-indices by 1 point showed that the tourist flows will be higher in accordance with the values in the table. Among the parameters of competitiveness, the development of information and communication technologies was

found to have the highest impact (1.12). Also, the level of influence of the surface transport infrastructure (0.63), labor market and labor resources (0.61), sector prioritization (0.59) and environmental sustainability (0.55) parameters on the number of international visitors is noteworthy. According to the results, the country's business environment and low prices do not directly affect the number of visitors. In fact, today's tourist does not spare money for high-level leisure and quality service, and the growing interest of tourists in individualized tourist products confirms this fact. Determining these impact levels is important for cross-country benchmarking analyses.

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