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METHODOLOGY OF ANALYSIS
OF INTERNATIONAL TOURISM INDICATORS

Abstract. *International tourism is one of the defining sectors of the world economy, which is developing dynamically, because for many countries it is important in the formation of gross domestic product and employment. Tourism affects key areas of the economy, accelerating their socio-economic development. At the same time, the development of tourism is also influenced by a combination of different factors, in particular: demographic, natural-geographical, socio-economic, historical, religious, political and legal and others. The importance of international tourism as a source of foreign exchange earnings, expanding international relations, increasing employment is constantly growing. At the same time, the further development of international tourism, its impact on the economies of countries requires a thorough characterization, which makes it necessary to improve the methodology of its analysis. The analysis of indicators of international tourism is carried out to assess its contribution to the development of the economy of each state, including determining the impact on the balance of payments; identification of the main directions and trends in the development of tourism enterprises to strengthen the material and technical base of tourism, marketing research and promotion of tourism products to potential consumers. The study aimed to develop a methodology for analyzing indicators of international tourism to assess its effectiveness. The study found that the development of international tourism and its regulation are based on detailed analytical information. Although today the methodology of calculating the system of indicators of international tourism is largely formed, its availability does not ensure the compatibility of information at the global level, as international tourism is in different countries at different stages of development, which causes some differences in the system of indicators and methods. The WTO recommendations, which are the only methodological basis for the analysis of international tourism, do not exclude the presence of certain national characteristics and provide for the need for further study of key indicators to ensure the possibility of international comparisons and reliability of the information.*

Key words: international tourism, analysis, tourism enterprises, indicators, methodology.

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МЕТОДОЛОГІЯ РОЗРАХУНКУ СИСТЕМИ ПОКАЗНИКІВ МІЖНАРОДНОГО ТУРИЗМУ

Анотація. Міжнародний туризм є однією з визначальних галузей світової економіки, яка динамічно розвивається, адже для багатьох країн він має важливе значення при формуванні внутрішнього валового продукту та забезпеченні зайнятості населення. Туризм чинить вплив на ключові сфери економіки, прискорюючи їх соціально-економічний розвиток. При цьому, на розвиток туризму також впливає сукупність різних факторів, зокрема: демографічних, природно-географічних, соціально-економічних, історичних, релігійних, політико-правових та інших. Значення міжнародного туризму, як джерела забезпечення валютних надходжень, розширення міжнародних зв'язків, збільшення зайнятості населення, постійно зростає. При цьому подальший розвиток міжнародного туризму, його вплив на економіку країн потребує ґрунтовної його характеристики, що спричиняє необхідність удосконалення методології аналізу. Аналіз показників міжнародного туризму проводиться для оцінки його вкладу в розвиток економіки кожної держави, в тому числі, визначення впливу на платіжний баланс; виявлення головних напрямів та тенденцій розвитку підприємств туристичної галузі для зміцнення матеріально-технічної бази туризму, виконання маркетингових досліджень та просування туристичного продукту до потенційних споживачів. Метою дослідження було опрацювання методології аналізу показників міжнародного туризму для оцінки його ефективності. В ході дослідження з'ясовано, що розвиток міжнародного туризму та його регулювання спираються на розгорнуту аналітичну інформацію. І хоча на сьогодні методологія розрахунку системи показників міжнародного туризму значною мірою сформована, її наявність не забезпечує сумісність інформації на світовому рівні, оскільки міжнародний туризм знаходиться в різних країнах світу на різних стадіях розвитку, це спричиняє деякі відмінності в системі показників та методиці їх розрахунку. Рекомендації СОТ, які становлять єдину методологічну основу аналізу міжнародного туризму, не виключають наявності певних національних особливостей та передбачають необхідність подальшого дослідження основних показників з метою забезпечення можливості міжнародних співставлень та достовірності інформації.

Ключові слова: міжнародний туризм, аналіз, туристичні підприємства, показники, методологія.

Formulation of the problem. Currently, tourism is one of the leading and most dynamic sectors of both the world and national economies.

In many countries, tourism plays an important role in shaping gross domestic product, creating additional jobs and employment; as well as the intensification of the foreign trade balance. It affects such key sectors of the economy like transport, construction, production of consumer goods, and others, ie acts as a catalyst for socio-economic development. In turn, the development of tourism is influenced by a combination of different factors: demographic, natural, geographical, socio-economic, historical, religious and political, and legal.

The importance of tourism, especially international, as a source of foreign exchange earnings, expanding international contacts, employment is growing steadily. The development of international tourism and its impact on the country's economy and all aspects of people's lives require a comprehensive characterization, which determines the need to develop a methodology for its evaluation and analysis. All this determines the relevance of the research topic.

Analysis of recent research and publications. According to the World Tourism Organization, the share of tourism in world GDP is about 10%, about 30% in world exports of services, and is about 7% of world trade. Almost 250 million people work in this field. The total turnover of world tourism is more than 2.0 trillion dollars a year [2].

As one of the leading branches of world production and a sphere of public life, international tourism needs an accurate assessment in terms of political and socio-economic significance, forecasting, and planning. It is almost impossible to solve all these issues without accounting and analysis.

Problems of tourist activity have been studied by many scientists, including Yermachenko V. [3; 4], Alexandrova A. Yu. [7], Gorina G. O. [8; 9],

Mishchuk I. P., Golovata R. [11], Panchenko Yu. V., Luginin O. E., Fomishin S. V. [12], Podgorny A. Z., Milashko O. G. [13], and many others. The analysis of scientific sources shows that despite a large number of developments in the field of tourism, little research remains on the methodology of analysis of indicators, in particular, and international tourism.

Setting objectives. With the growth of the volume and economic importance of international tourism, the systems of accounting and data processing were improved, and the analysis of indicators became deeper. Currently, the analysis of tourism enterprises, which covers a wide range of issues and is based on a system of indicators, is conducted to assess the contribution of international tourism to the economy of each country, in particular, its impact on the balance of payments; identification of the main directions and trends in the development of international tourism to strengthen its material and technical base, marketing research and promotion of tourism products to potential consumers [6].

The aim of our work is to study the methodology of analysis of indicators of international tourism to assess its effectiveness.

Presentation of the main material of the study. Statistical characteristics of international tourism are carried out using a system of indicators developed by the World Tourism Organization [2].

The volume of international tourism is usually determined in both natural and value terms.

Natural indicators include:
– number of tour days of foreign tourists;
– total number of tourists coming;
– average length of stay of a tourist in the country;
– number of departing tourists;
– number of tour days abroad;
– average length of stay of a tourist abroad;
– number of tourists who arrived by country of origin;
– the number of tourists who left in terms of destination [1; 13].

Natural indicators are based primarily on the number of tourists. However, they are not enough to determine the actual volume of foreign tourism, nor to calculate the necessary material and technical base.

The fact is that a foreign tourist is in another country for a certain amount of time. And the volume of foreign tourism, in general, depends on the average length of stay of foreign tourists in the country. Therefore, in international tourism, along with the total number of tourists, an important natural indicator is the number of tour days spent by tourists in the country. In the practice of most countries, this figure is called "number of nights". The number of tour days is determined based on data on the accommodation of foreign tourists on the number of foreign tourists staying overnight.

The cost indicators include:
– income from foreign tourists;
– average income from one foreign tourist;
– average income from one tour day;
– expenses of departing tourists;
– average costs per outgoing tourist;
– balance of international tourism operations.

Cost indicators in international tourism are based on prices that apply to travel services, as well as all other forms of costs borne by foreign tourists in the country. At the same time, the cost of international transport is usually excluded from these costs. In some countries, it is accepted to allocate as cost indicators the average income for one round-day and, the average income for one tourist trip.

Thus, the total foreign exchange earnings of the country are determined by the formula:

$$V = K \cdot T \cdot D_c,$$

where V – total amount of foreign exchange earnings;

K – total number of tourists;

T – the average length of stay of one tourist in the country;

D_c – average income per tourist [13].

In turn, the average length of stay of one foreign tourist in the country is determined as a fraction of the division of the total number of tour days by the number of foreign tourists visiting the country.

The current system of physical and cost indicators should be supplemented with indicators of the following subsystems:
– material and technical potential;
– labor potential;
– the results of the functioning of tourism as a branch of production activity of the economy;
– results of advanced and current tourism costs;
– socio-economic effect of tourism.

Most indicators of international tourism are developed in groups on various grounds. In particular, arriving tourists are studied on the following grounds:
– by country of permanent residence;

– for the visit;
– by the length of stay;
– by type of transport of arrival;
– by seasons;
– by type and category of accommodation.

Outbound tourists are grouped by the following characteristics:

– by place of residence in the country of permanent residence;
– by type of departure transport;
– the length of stay abroad;
– to visit.

It should be noted that the central place in the system of indicators of international tourism is occupied by cost indicators, and, above all, indicators of income from foreign tourism and expenditures on foreign tourism [10].

Revenues and expenditures are interdependent, as the revenues of one host country consist of the costs of foreign tourists coming from other countries. Therefore, the country's income from foreign tourism includes:

– the cost of purchasing tours to this country;
– transport costs of tourists arriving in the country (if they use the transport of the host party);
– expenses related to travel to the host country (payment of visas, currency exchange, payment of duties and fees, etc.);
– payment for accommodation in accommodation;
– costs of purchasing goods and services in the host country.

The study of the structure of incomes from inbound tourism and expenditures for outbound tourism is also based on the classification of activities in tourism. The costs of outbound tourism are divided into 3 groups depending on the stage at which they were made:

I. Travel expenses;
II. Travel expenses;
III. Expenses after the trip.

This division is carried out according to the actual costs of international tourists at each stage. However, the World Tourism Organization does not set strict rules with clear boundaries for defining each group of costs. It only sets out the rules that are recommended for member states. In particular, the following adjustments are recommended for international tourism:

– travel expenses do not include the cost of purchasing capital goods (land, cottages and summer houses, yachts, and cars), even if they are used for international tourism; costs of consumer goods (suitcases, shoes, clothes, sports equipment, etc.) purchased for international tourism. Services purchased before the trip (transport, accommodation, insurance, etc.) are included only for the country of residence of tourists;

– the cost of the trip does not include the purchase of goods for commercial purposes (for resale); cash; purchase of capital goods (land, buildings and structures, transport, machinery, and equipment). At the same time, they include the cost of transport repairs; purchase of durable goods for consumption; purchase of souvenirs regardless of cost; expenses for food, accommodation, and transport incurred during the trip; any other purchases of goods and services during a trip abroad, if they are not of a capital nature;

– post-travel expenses include all current expenses related to the international tourist trip (repair of durable goods, clothing, and footwear used in a trip abroad, etc) [2].

The next group of indicators for the analysis of international tourism includes indicators of resources and economic potential of tourism.

It should be noted at once the main difficulty that arises in the calculation of these indicators. After all, international tourism makes extensive use of the potential of other sectors of the economy (transport, communications, trade, culture and entertainment, financial institutions, etc.). On the other hand, the natural resource, labor, and logistical potential of any country are used for its own purposes by its indigenous peoples. This undoubtedly creates great difficulties in identifying certain components of the potential of international tourism.

Natural resource potential is characterized by climate (air temperature, precipitation, number of sunny days per year), relief (it is especially important for mountain and ski tourism), the presence and nature of forests and water basins, wealth, and opportunities for economic use of natural resources for therapeutic purposes. These opportunities, in addition to the above elements of natural potential, depending on the quality of air and water, the availability of mineral water and therapeutic mud, the level of development of the medical base, the availability of qualified medical staff, and other factors.

Determining the labor potential of international tourism for the above reasons is also very difficult. The vast majority of tourism enterprises operate both in the field of domestic

tourism and in the field of international tourism. In addition, it is necessary to take into account employees of other sectors of the economy that serve international tourism. Therefore, we propose to use two indicators to characterize labor potential:

– the average number of employees of enterprises that directly and completely serve international tourism. It should include employees of international tourism organizations; employees of other sectors of the economy who are directly subordinate to international tourism organizations (transport, communications, trade and catering, housing and communal services, etc.) or working (renting space) in these organizations; temporary (seasonal) workers who are involved in the period of greatest load.

The number of temporary workers should be calculated relative to the average annual number of workers using the conversion factor (Кпер):

$$K_{nep} = \frac{K_{\text{л.г.}}}{T_{\text{г}}},$$

where $K_{\text{л.г.}}$ – the number of man-hours worked by temporary workers per year;

$T_{\text{г}}$ – average annual working time of one employee (hours).

– average total number of employees in the economy engaged in international tourism. It can be calculated by the formula:

$$\overline{K}_{\text{заг}} = K_{\text{пов}} + K_{\text{суп}},$$

where $K_{\text{пов}}$ – the number of employees of enterprises that fully serve international tourism;

$K_{\text{суп}}$ – the number of employees in related industries that serve international tourism [12].

The number of employees serving international tourism in related industries can be determined by the share of goods and services provided by these employees in the total goods and services of this industry:

$$K_{i\,\text{суп}} = K_i \cdot \frac{B_i}{B_{\text{мi}}},$$

where $K_{i\,\text{суп}}$ – the number of people employed in the i-th field, serving international tourism;

K_i – number of employees in the i-th industry;

B_i – cost of products (services) of the i-th industry;

$B_{\text{мi}}$ – the cost of products (services) of the i-th industry, intended for international tourism [13].

The group of indicators of the potential of international tourism includes indicators of the material and technical base of this sector of the economy. The calculation of these indicators also requires additional indirect calculations. This is since the material and technical base of international tourism often coincides with the material and technical base of domestic tourism. In addition, the material and technical base of tourism can be used by other citizens of the country. Therefore, the results of calculations of indicators of material and technical potential are also approximate.

Conclusions and prospects for further research in this area. Today, international tourism has become a powerful industry, a complex sector of the economy that plays an important role in the development of international contacts and has a significant impact on the national economy and international relations.

The development of tourism and its regulation are based on detailed analytical information. To date, the methodology for calculating the system of indicators of international tourism has largely been formed, having come a long way, and its availability does not ensure the compatibility of information at the global level. However, since international tourism and its analytical characteristics are in different countries at different stages of development, there are some differences in its main categories and concepts, and the content of the system of indicators and methods of their calculation. The recommendations of the World Tourism Organization, which are the only methodological basis for the analysis of international tourism, do not exclude the existence of certain national features of statistical methodology and provide for further study of basic concepts and indicators to ensure accurate international comparisons and quality information.

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