

# Fostering Sustainable Tourism in Global Economy

## Fomento del Turismo Sostenible en la Economía Global

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#### ABSTRACT:

The study of the essence of the sustainable tourism, transformation of the modern functions of global tourism, rethinking of its basic principles made it possible to form the conceptual framework of the sustainable tourism. The conditions for promotion of the sustainable tourism to the world market and the factors of impact on its development in the global economy have been determined. The technique for calculation of the tourism sustainability index, taking into account the anthropogenic factor, was improved.

**Keywords:** Sustainable Tourism Conception, Global Economy, Sustainable Tourism Index, Mild Tourism.

#### RESUMEN:

El estudio de la esencia del turismo sostenible, la transformación de las funciones modernas del turismo global, el replanteamiento de sus principios básicos permitió formar el marco conceptual del turismo sostenible. Se han determinado las condiciones para promover el turismo sostenible en el mercado mundial y los factores de impacto en su desarrollo en la economía mundial. Se mejoró la técnica para el cálculo del índice de sostenibilidad del turismo, teniendo en cuenta el factor antropogénico.

**Palabras clave:** Concepción del turismo sostenible, Economía global, Índice de turismo sostenible, Turismo moderado.

## 1. Introduction

In the tourism business, natural resources are intensively used and consumed, and tourism directly influences the environment, the ecosystem, economy, societies and cultures. Global positioning of tourism territories and separate facilities allows gaining profits in the tourism sector due to mass tourism, however, the tourists' flow to these areas usually exceeds their anthropogenic capabilities. This causes the destruction of ecosystems, additional burden on infrastructure facilities that use local natural, human, material and other resources, which are gradually depleted. Combating the negative influence of tourism and transition to its sustainable development involves following the principles of sustainable development, coordination and approval of international standards in terms of functioning of the tourism sector, pursuing tough global economic policy.

The former United Nations Secretary-General Ban Ki-Moon emphasized that travelers in the 21st century more support and choose sustainable tourist destinations, where the natural environment is protected and the built-in environment is preserved (Ban, 2009).

The tourist sector is known to integrate the geographical territory, travels and tourism industry and to encompass over 50 branches of industry that provide services to tourists around the world. This means a strong dependence on human resources at all levels and in all tourism-related sectors (hotel business, field of catering, etc.). At the same time, tourism is the type of economic activity, and tourism business owners seek, first of all, to gain maximum profits. It is thanks to the tourism activity that 10% of the total world GDP and 7% of the world export are formed. Tourism is one of five largest exporters in 83% of the countries in the world and a major source of foreign currency earnings in 38% of the countries (WTO Public Forum, 2017). Today, the tourism sector accounts for about 5% of global carbon dioxide emissions, including 40% for air transport and 20% for accommodation facilities. Tourism is responsible for 4.6% of radiation pressure, which causes climate changes (FAQ-Climate Change and Tourism, n/a). That is why the relevance of the problem of sustainable development of tourism as a sector of the global economy is difficult to overestimate.

### 1.1. Literature review

The concept of the sustainable tourism appeared in the early 90s of the last century neither in the travel industry, nor in the political circles, but had a purely scientific origin. According to modern researchers, a certain "artifice" of emergence of sustainable tourism has led to the need for a significant clarification and improvement of a fairly new in our time concept (Lane, 2018).

There is a sufficient number of scientific works, devoted to studying the essence of eco-tourism, in the 90s, the scientists identified it with the sustainable tourism (Steck, 1999). Others explored the role of ecotourism in achievement of the goals of sustainable development (Honey, 2008).

According to Bramwell & Lane, sustainable tourism is a reactive concept in response to the ecological damage and negative consequences for the society and traditional cultures (Bramwell & Lane, 1993).

For more than 25 years of studying sustainable tourism, the interest to this topic has not decreased. On the contrary, the scientists pay attention to exploration of tourism sustainability both to separate countries and for specific industrial sectors (Hashemkhani Zolfani, Sedaghat, Maknoon, & Zavadskas, 2015). The most widely known definition of sustainable tourism is the

definition of the World tourism organization (WTO, 2001): sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future. It is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems.

Sustainable tourism is a tourism which fully takes into account its current and future economic, social and environmental consequences (Definition).

In our view, sustainable tourism is a temporary departure of a person beyond his / her permanent place of residence with any (not prohibited by countries' laws) purposes without conduction of paid activities, which does not make any adverse effect on ecology, society and economy of place/country of stay.

Under the environmental program of UNO this implies:

- 1) optimal usage of environmental resources, which constitute the basic element of the development of tourism, support for basic ecological processes and promotion the conservation of natural heritage and biodiversity;
- 2) respect for preservation of the socio-cultural authenticity of host communities and promotion of intercultural understanding and tolerance;
- 3) ensuring the viability of long-term economic measures that provide socio-economic benefits for all stakeholders, with a fair distribution, including stable employment and income, social services to host communities and contribution to the fight against poverty (Sustainable Tourism, n/a).

Great attention is paid to the study of indicators of tourism sustainability in the scientific literature, which is explained, on the one hand, by importance and awareness of the concept of sustainable development, and on the other hand, the lack of successful implementation of sustainable transformation in tourism, declared in public programs, supported by international organizations, For more than 25 years of existence of the concept of sustainable development in tourism, economic growth is still the main principle of its development without proper attention to environmental and social problems that arise during the implementation of tourism activities.

The United Nations World Tourism Organization (UNWTO) proposed to identify the Indicators of Sustainable Development for Tourism Destinations (2004), the development of which involved 62 experts from 20 countries of the world. It was offered to estimate sustainable development of tourism by 29 directions, such as management of natural resources, satisfaction of tourists and host communities, preservation of cultural heritage, seasonality, economic leakages, or climate change and the others. The indicators and the technique for their assessment were developed for each of the direction (WTO, 2004).

The Global Sustainable Tourism Council (GSTC) developed the sustainability standards for tourism operators and hotels (2013). They are based on four groups of overall indicators: to demonstrate effective sustainable management, to maximize social and economic benefits to the local community and to minimize negative impacts, to maximize benefits to cultural heritage and to minimize negative impacts, maximize benefits to the environment and minimize negative impacts (Global Sustainable Tourism Council, 2016). This organization also proposed the sustainability assessment criteria for tourist destinations (2013). These criteria include four main objectives: to demonstrate sustainable destination management, to maximize social and economic benefits for the host community and to minimize negative impacts, to maximize benefits to communities, visitors and cultural heritage and to minimize impacts and to maximize benefits to the environment and minimize negative impacts (Global Sustainable Tourism Council, 2013). All of the above criteria determine the minimal level of quality that tourism operators should meet, accommodation facilities and tourist destinations in order to be considered as those aimed at sustainability. By comparing the obtained results with the criteria, it is necessary to determine the relevance or irrelevance of each indicator. A large number of indicators makes it difficult to calculate the results and makes the evaluation of the influence of a certain factor impossible.

The European Commission proposed its system of assessment of sustainable development of destinations, the European Tourism Indicator System (ETIS) (2016). ETIS includes 27 basic and 40 additional indicators, which fall into such groups as destination management, social and cultural impact, economic value, environmental impact (European Commission, 2016). All indicators were determined by the method of expert evaluation. The authors of the research did not propose the technique and distinct criteria for ETIS assessment.

A large group of studies is related to the formation of indicators for sustainable management and for tourist destinations (White et al., 2006). Some authors generally believe that sustainability cannot be measured [Stoeckl et al, 2004].

It is believed that the main task in achieving sustainable tourism remains in overcoming the gap between the development of methodological approaches and guidelines of the tourism policy and implementation of these principles directly by tourism companies. In our view, this gap occurs because the technique of formation of the tourism sustainability index does not take into account the most important anthropogenic factor. That is, it is the behavior of a tourist that must be measured and determine effectiveness of government programs (Ahués, 2003).

## 1.2. Purpose of the Research

The purpose of the research is to substantiate the ways of promotion of sustainable tourism in the global economy. The conceptual frameworks of sustainable tourism were also studied, its modern role in the global economy and in the process of achieving the purposes of millennium development was determined, the existing factors of control of its development at the global level and in the countries with different socio-economic development were analyzed. The technique for calculation of the tourism sustainability index, taking into account the anthropogenic factor, was improved.

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## 2. Methodology

Research methods: scientific-theoretical analysis and generalization of the data from secondary sources of information; social simulation; mathematical modeling; the method of expert estimations.

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## 3. Results

In our study, we focused on determining the anthropogenic role in the development of the sustainable international tourism. A tourist is the central element, without which the tourism activity is impossible. He is a consumer of travel services in all spheres; he makes an impact on the environment and cultural environment of the country he visits; he chooses a destination; particularly, the corrective regulatory actions in the tourism sector should be directed to a tourist. Thus, the study of the impact of the factors, forming sustainability of a tourist destination (a country), on the behavior of a tourist and on formation of the demand for tourist services is important for determining the possibilities of the sustainable tourism promotion in the global

economy.

In the tourism business, natural resources are intensively used and consumed, and tourism has major impacts on environment, ecosystems, economy, societies and culture. If it is managed effectively, tourism can contribute significantly to regional development, if not, it can have devastating effects on nature and society (ETE, N/A). That is, the sustainable management in the tourism sector is an especially important element of the tourism development, and correction of the activity of the tourism business from the side of the states and international institutions is capable to give the tourism activity a necessary guidance towards its sustainable development.

As revealed by the research, safety of a tourist during traveling is the determining factor that directly affects his choice of a destination, and respectively, efficiency of the transformation of the tourist activity in the direction of sustainability. The level of personal safety during traveling can become an insurmountable barrier for stimulation of sustainable transformation in the international tourism.

Although we focused on the role of a tourist in the formation of its sustainable development, it was impossible to ignore the role of the external historical factors that have already led to the formation of a certain sustainability level in the countries, i.e. the basic conditions, which are subject to further transformation. That is, in our opinion it is necessary to take into account the impact of the basic sustainability conditions on the behavior of a tourist. The effectiveness of stimulation of sustainable actions will also depend on the effectiveness of the institutions because, with bad institutions, even declared and enacted laws do not work to the full in practice.

Recognizability of the tourism territory with its historical and cultural, natural and geographical, and ethnic potential acts as the main attraction for tourists. Such attractions determine the destinations of massive tourist flow, which serve as a catalyst for the development of the tourism industry, the investment attractiveness of the tourism sector, an increase in the employment of the local population in the tourist sphere of activity, overloading of recreational facilities, excessive use of all kinds of resources, environmental pollution, etc.

Taking into account the consequences of the further use of tourism resources without damaging them and preservation of the tourism-resource potential for future generations must determine the vector of macroeconomic tourism policy of the states and international intergovernmental organizations. The main negative consequence of mass tourism was the overloading of natural sites, environmental pollution, which manifested themselves in a decrease in the population and extinction of some species of flora and fauna, pollution of water bodies, forests and other natural sites (Table 1). Adjustment to the interests of mass tourism created conditions for losing authenticity, of Spain, Hawaii and other destinations. Now cultural and ethnic features of many countries and peoples are the constituents of tourists' entertainment, the element of tourist destination brand. Therefore, understanding of the destructive force of mass tourism determined the sustainable tourism as the vector of further development under conditions of supporting the Global goals of sustainable development, approved by the world.

**Table 1**  
Impact of the international tourism on the possibility of sustainable development

Positive impact	Negative impact
An increase in amount of tourist arrivals	Pollution of ecosystems
An increase in incomes and profits of the tourism sector	Anthropogenic overload of tourist facilities
Ensuring employment of local population and working force migration	Extinction of some species of flora and fauna
An increase in investment attractiveness of tourist territories	Full orientation of the country's economy to tourism
Multiplicative effect	Destruction of national identity of culture
Cosmopolitanism and inter-ethnic communications	

**Source.** Own elaboration

Support of these goals of UNWTO and commitments to implement three of them (8, 12, 14) demands that the tourism sector should determine the functions of the sustainable tourism and intensify the application of the principles of sustainable growth under conditions of the globalization transformation.

The focus of the international community on the sustainable development requires a radical transformation of the functions of tourism. Specifically, the recreational role of tourism is in restoring physical and psychological capacities of a person without inflicting harm to the environment. Internationalization as a consequence of the globalization processes increases the value of the communicative functions of tourism. This is evident in respect for culture, customs, ethnic characteristics of a country where tourists stay, reducing customs and political formalities, which determines a new vision of the integrating function. This function is realized through strengthening and deepening of interaction between the social, economic and environmental processes of attaining the tourism sustainability. International franchising, the essence of which is highlighted in (Krupskiy et al., 2017), was recognized as one of the manifestations of the tourism integration. The new format of franchising itself implies the obligatory conditions of keeping to the responsible management of the franchise. Such conditions are the driving force behind the implementation of the sustainable development at the micro level.

Intensive transition to sustainable development caused an increase in the role of adaptive and marketing functions, aimed at the formation of a tourist offer in accordance with the change of values, motives and purposes of traveling and at predicting the needs of tourists on the basis of sustainable development. This results in the emergence of new sustainable forms and types of tourism and enhances the value of the innovative function of tourism in the global economy. Such types of the sustainable international tourism include environmental (green) tourism, mild tourism, socially responsible tourism. UNWTO considers environmental tourism as the tourism to undisturbed natural places. Environmental tourism actively contributes to the conservation of the natural and cultural heritage; involves local communities in planning, development and implementation of the ecotourism activity; includes educational activities on explaining the significance of the natural and cultural heritage to

tourists; influences small groups or individual tourists (Kuskov et al., 2005).

That is, though ecotourism is based on the principles of the sustainable tourism, it is a narrower form of tourism. According to Rulf Buckley, the sustainable tourism may not include educational components and not contribute in an active form to the preservation of the cultural heritage. Besides, the sustainable tourism is directed to all forms and types of tourism from the mass tourism to the individual tourism. The sites of the sustainable tourism can be both of natural and of artificial origin (Buckley, 2012).

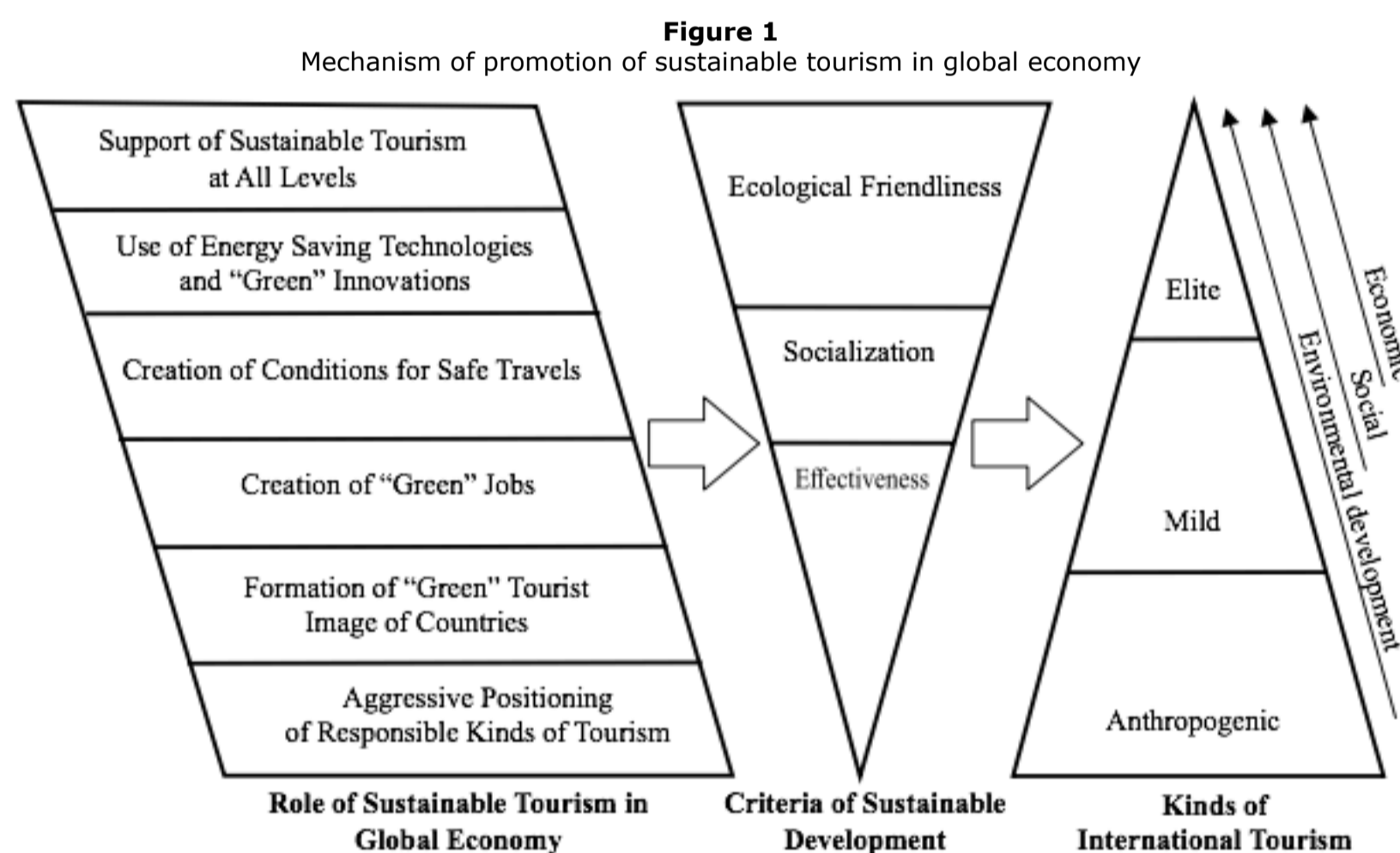
Based on the principles of the sustainable tourism, there exists the agrotourism (rural tourism), which is a holiday in the countryside with the purpose of getting acquainted with the local culture and customs, participation in the work that is traditional for local residents and others.

The further sustainable development of the international tourism is only possible while maintaining the investment attractiveness of the tourism sector. This is determined by the necessity of taking into account the economic interests of large and small businesses based on mutually beneficial partnership and effective cooperation, which is caused by the observance of the "green" economy principles.

The green potential of countries can form their international competitive advantages in the global market of tourism services and is the means of the anti-crisis regulation. For example, in Italy after the Second World War, when the agriculture of the country was destroyed, the Italians focused their attention on the agricultural tourism (Penisola, N/A).

Strengthening the role of the sustainable tourism in the global economy requires a radical transformation of the basic principles of tourism (Figure 1). The principles of the sustainable tourism must become:

- aggressive positioning in the global tourism market of "green" (responsible) kinds of tourism;
- formation of the "green" tourism image of countries;
- creation of "green" jobs;
- creation of conditions for safe travels;
- using energy saving technology and "green" innovations by the subjects of the tourist infrastructure;
- support of the sustainable tourism at all levels of development of economic systems (micro-, meso-, macro-, globo-levels).



Source. Own elaboration

The demand for tourist services develops in three directions, on the basis of which we identified 3 types of the international tourism by the criterion of sustainability perception (Table 2):

1. An increase in the tourist flow to the basic tourist destinations of the tourism masses – anthropogenic tourism;
2. Development of elite tourism;
3. Development of the outlook of the conceptual tourism – mild tourism.

The anthropogenic tourism belongs to the economical segment and the price of a journey, the quantity and quality of the sites of the cultural heritage or the beauty of nature rank first for its consumers. The sustainability level of a tourism service generally does not affect the primary motivation to travel, but in this case the deterioration of the environmental situation of the regions of the mass tourism can decrease the rate of an increase in tourists in such places. This direction is the most dangerous for the development of the sustainable tourism. An uncontrolled growth of tourism, aimed at quick gaining of profit, has negative consequences, does harm to the environment (Rubtsova, 2014). Since the mass tourism is the most standardized of all directions, it is possible to overcome its negative effects by means of the state regulation, such as the introduction of additional restrictive or stimulating measures for hotels, travel agencies, and tourists themselves.

In our view, originality, uniqueness, and the limited access of the masses of tourists to this destination takes the first place when choosing the elite tourism. The level of sustainability of a tourist service can affect the primary motivation to travel among other factors, but it is not the main thing. The elite tourism poses a threat to the basic level of the destination sustainability not in the process of consumption, but rather at the stage of creation of the tourism infrastructure for its implementation. Since, by statistics, the elite tourism attracts more conscious subjects, the influence of the state sustainable initiatives, offered in the right "elite" way, will be received with enthusiasm by the tourists who prefer this direction.

Mild tourism in general can be built entirely on the sustainable principles.

**Table 2**  
Critical assessment of the sustainability degree of international tourism\*

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Kind of tourism	Threat for sustainability	Producing sustainable initiative	Impact of state regulation	Impact of crisis economic phenomena
Anthropogenic	3	0	3	2
Elite	1	2	3	1
Mild	0	3	1	2

\* - the impact was assessed by the conditional scale from 0 to 3  
(0 - absence of impact; 1 - weak impact; 2 - rather strong impact; 3 - strong impact).  
**Source.** Own elaboration

The possibility to promote the sustainable tourism in the global economy is determined using the factors that affect the behavior of a tourist and form the sustainability of a tourist destination (a country). When identifying these factors, we took the structure of the factors of the existing Sustainable Tourism Index (The Economist Intelligence Unit Limited, 2017) as a basis, but focused our attention on the role of a tourist himself. We separately distinguished the safety factor due to an increase in the impact of negative events of different levels on the desire to travel in general and on the choice of the tourist destination: it included the factors of personal safety and stability of the political environment. We also added the indicator of the basic sustainability state of a country, to which we included the scores according to the following criteria: the level of the use of sophisticated technologies for manufacturing food products; existence of harmful production sites on the territory of the state; the unemployment rate in the country; the importance of traditions in everyday life; international openness. The structure of 7 factors and the sub-factors, forming them, which was obtained as a result, looks as follows: political and regulatory environment, ecological sustainability; socio-cultural strategy; economic sustainability; tourist service; safety; sustainability state (The Economist Intelligence Unit Limited, 2017).

The existing paradox that in the process of assessment we would assess what we can assess rather than what we want to assess was solved with the help of the method of expert estimations. This method allows us to avoid the need to measure the indicators that are difficult to calculate. The method is suitable for us, especially since tourists who form the demand and scientists, studying the peculiarities of the international tourism, can be the experts. As a result of questioning 150 experts, we established the following disposition of factors (Table 4). With the view to specifying the level of importance of the factors that characterize the tourism sustainability level in the countries, the hierarchy method of T. Saati was applied. According to this method, the factors are compared pairwise using the estimated scale of relations (Table 3).

**Table 3**  
Relations scales of the hierarchy methods of T. Saati

Relative weight of factors	Characteristic of factor
1	Equal importance
3	Moderate outweigh of one factor over others
5	Significant outweigh
7	Significant outweigh of one over another
9	Very strong outweigh
2,4,6,8	Intermediate values

The results of pairwise comparisons of factors' significance are presented in the form of the matrix (Table 4). The elements of the matrix are the importance of the factors relative to one another. When completing the matrix, the factors that are above the diagonal of units are compared first. The process of determining the component of the eigenvector is approximated with the help of calculation of geometric mean value in the line of the comparison matrix. Then the components of the eigenvector are normalized as the ratio of eigenvector of the matrix to their sum, and as a result, the weight of each sustainability factor was obtained.

**Table 4**  
Determining the significance level of the tourism sustainability factors

factor	Safety	Tourism service	Basic state of sustainability	Ecological sustainability	Socio-cultural sustainability	Policy and regulatory environment	Economic sustainability	Eigenvector of the matrix	Normalized assessment of vector (factor weight)
Safety	1	2	3	5	7	8	9	3.9543838	0.35000616
Tourism service	1/2	1	3	5	7	8	9	3.2439209	0.28712242
Basic sustainability state	1/3	1/3	1	3	5	7	9	1.9442017	0.17208308

Ecological sustainability	1/5	1/5	1/3	1	3	5	7	1.0492414	0.09286932
Socio-cultural sustainability	1/7	1/7	1/5	1/3	1	3	5	0.5735131	0.05076218
Policy and regulatory environment	1/8	1/8	1/7	1/5	1/3	1	3	0.3321950	0.029i40288
Economic sustainability	1/9	1/9	1/9	1/7	1/5	1/3	1	0.2005846	0.01775392
The highest eigen value of matrix									7.57937641
Coherence index									0.09656273
Relative coherence									7,32%

Source. Own elaboration

It was detected that the indicators that belong to the group of factors: economic sustainability and the policy and regulatory environment proved to be almost unimportant for tourists. That is, the factors that form the tourism profit of a country and legal regulations of the country regarding its sustainability are not the stimulus for a country to be selected for traveling. The safety factor, the tourism service factor and the factor of basic sustainability of a country account for more than 90% of impact.

In order to carry out the study, we selected 2 resources in the Facebook: "Tourism business" with 1749 participants (Tourism business, 2017) and "Independent journeys around the world" with 21655 subscribers (Independent journeys around the world, 2017). We sent a short enquiry, aimed at identification of those who wanted to take part in our survey, and received responses from 585 people, which makes up 2.5% of the total number of people, covered by these two resources. The survey questionnaire was sent to these people. The participants were informed about the general aim of the research, but the accurate description was deleted in order to decrease the social desirability of responses. 327 responses were obtained (56% of those who received the questionnaire). Subsequently, we removed from the sampling all incomplete responses and the responses that belonged to the people, employed in tourism and hospitality companies and obtained 107 (32%) replies of the respondents. These respondents, first of all, did not work in tourism and hospitality companies, secondly, they took an active interest in traveling and, as we assume, has their own traveling experience.

After data cleaning, the sample contained 98 questionnaires. 68% of the participants were women, 32% - men. The average age made up 38.25 (SD = 17,76).

In the questionnaires, the respondents were to estimate the level of 7 factors for 10 countries, proposed by us, by the 10-point scale (1 - very low, 10 - very high). We selected the group of 10 countries, which are global leaders of revenues from the global tourism (the United States of America, Spain, Thailand, China, France and Italy) and the countries, in which flower revolutions has recently taken place (Turkey, Georgia, Tunis and Egypt). It should be noted that there was a revolution in Thailand, i.e. it got into two categories of choice at once.

Based on the obtained questionnaires, the mean values of the expert estimate for each of the 7 factors for all 10 countries was calculated. After that, the mean values were corrected according to the factor weight (Table 4), and the total magnitude of the tourism sustainability index of the country was obtained (Table. 5).

**Table 5**  
The tourism sustainability index of the studied countries

Factor	Coefficient of weight	The importance of factors by countries									
		USA	Spain	Italy	Thailand	China	France	Turkey	Egypt	Georgia	Tunis
Safety	0.35	2.396154	2.3962	2.4500	1.9833	2.4231	2.3154	2.0731	1.4808	2.1269	1.7208
Tourism service	0.29	2.565385	2.3646	2.4762	2.0300	2.0077	2.2754	2.3423	1.8738	1.6731	1.6433
Basic sustainability state	0.17	1.255385	1.2423	1.3077	1.0767	1.1900	1.3077	1.2031	0.9154	1.0069	0.9492
Ecological sustainability	0.09	0.623077	0.6300	0.6438	0.6000	0.4223	0.6438	0.5815	0.4223	0.5677	0.4575
Socio-cultural sustainability	0.05	0.407692	0.3962	0.4154	0.3375	0.3423	0.4000	0.3692	0.2962	0.3115	0.2792
Policy and regulatory	0.03	0.235385	0.2308	0.2354	0.1975	0.2077	0.2308	0.2008	0.1638	0.1869	0.1675

environment											
Economic sustainability	0.02	0.161538	0.1554	0.1600	0.1433	0.1338	0.1538	0.1400	0.1092	0.1123	0.1083
<b>The tourism sustainability index</b>	-	7.64462	7.4154	7.6885	6.3683	6.7269	7.3269	6.9100	5.2615	5.9854	5.3258
<b>Place in rating</b>	-	2	3	1	7	6	4	5	10	8	9

**Source.** Own elaboration

With regard to importance of safety factor for tourists and after-revolutionary misbalances in the countries of the second group, obtaining worse rating indicators was quite predictable. Egypt obtained the lowest magnitude of the rating indicator of safety – 4.23 out of 10 possible, which determined the 10th place of the country by the total tourism sustainability index. China and Egypt obtained the lowest rating by ecological sustainability – 4.69 out of 10, which even on the background of a relatively high indicator of safety of China (6.9) moved the country to the 6th place. Italy ranked first in the rating, which not in the last place demonstrates effectiveness of the state policy, aimed at the development of agricultural tourism in unpolluted places and reconstructed historical buildings.

For each rated country, we formed the data array from the indicators of the international arrivals, revenues from the global tourism and three adjacent indices: The Travel & Tourism Competitiveness Index 2017, The Sustainable Development Goals Index 2017, The Sustainable Competitiveness Index 2017 (Table. 6).

**Table 6**  
Ranking of the studied countries by various ratings

Country	Tourism sustainability index (scores out of 10) <sup>1</sup>	The Sustainable Development Goals Index: overall results (scores out of 100) <sup>2</sup>	The Travel & Tourism Competitiveness Index 2017 (scores out of 7) <sup>3</sup>	The Sustainable Competitiveness Index 2017 <sup>4</sup>	International tourism receipts, billion US <sup>5</sup>	International tourist arrivals, million <sup>5</sup>
Italy	7.69	75.5	4.99	49.0	40.2	52.4
USA	7.64	72.4	5.12	49.2	205.9	75.6
Spain	7.41	76.8	5.43	48.1	60.3	75.6
France	7.33	80.3	5.32	52.9	42.5	82.6
Turkey	6.91	68.5	4.14	45.1	18.7	32.6
China	6.73	67.1	4.72	48.9	44.4	59.3
Thailand	6.37	69.5	4.38	41.2	49.9	32.6
Georgia	5.99	68.6	3.70	47.8	2.2	2.7
Tunis	5.33	68.7	3.50	44.3	1.2	5.7
Egypt	5.26	64.9	3.64	38.6	1.0	5.3

**1. Source.** Own elaboration. **2 Source.** SDG Index & Dashboards Report, 2017. **3 Source.** World Economic Forum, 2017. **4 Source.** The Economist Intelligence Unit Limited, 2017. **5 Source.** WTO, 2017

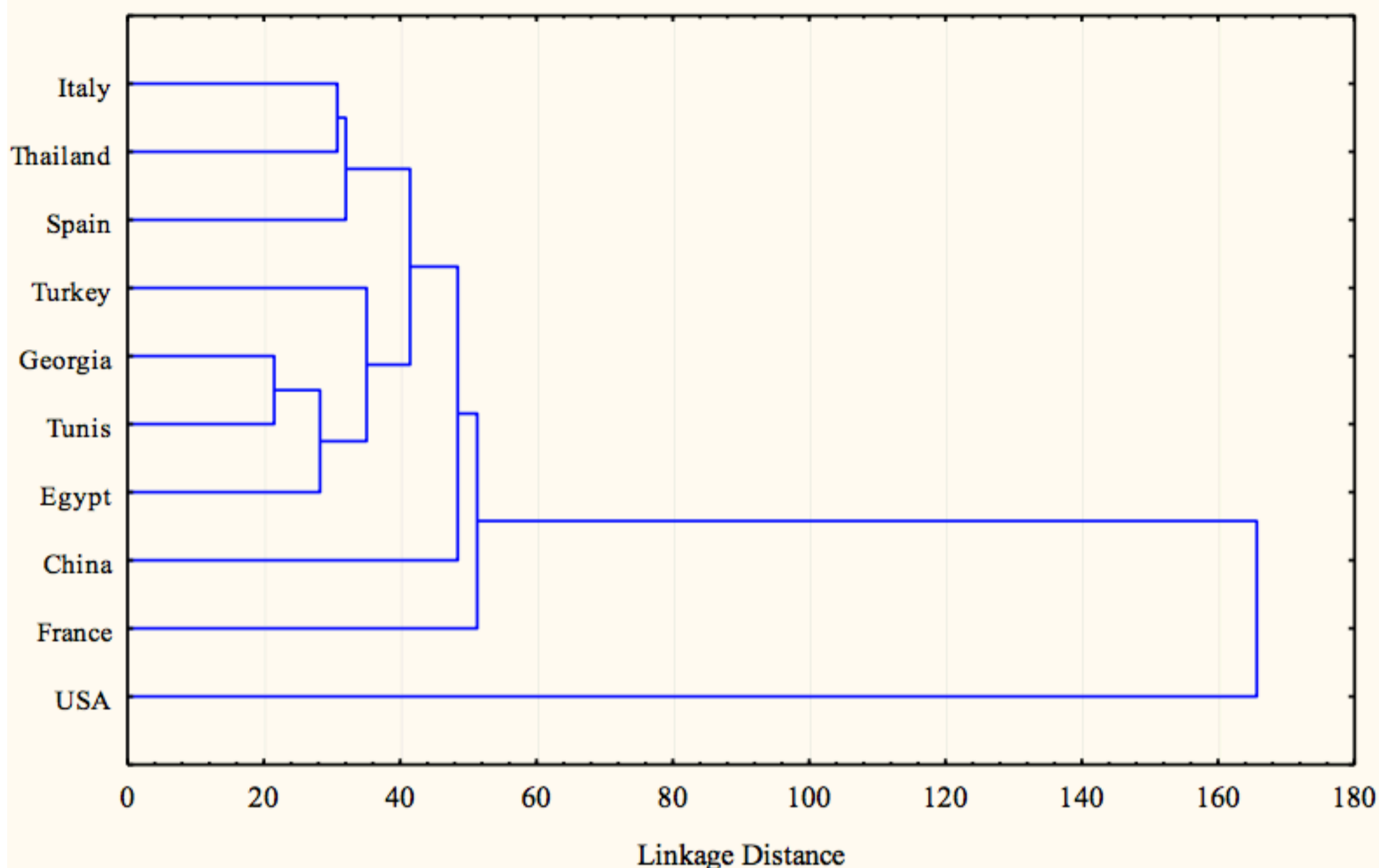
We calculated the paired correlation between the data, on the results of which 5 clusters were constructed (Fig. 2). The first cluster included Italy, Thailand and Spain, the second cluster included Turkey, Georgia, Tunis, and Egypt. The third, fourth and the fifth clusters included separate countries such as China, France and the USA.

**Figure 2**  
Dendrogram of results of cluster analysis

## Tree Diagram for 10 Variables

### Single Linkage

### Euclidean distances



Source. Own elaboration

The first cluster included Italy, Thailand and Spain. Among the countries, selected by us, they are the countries with the highest annual growth of revenues from the global tourism in the local currency and international profit at the same time (WTO report, p. 6). The second cluster was formed by the countries, where flower revolutions have recently taken place. These countries have low indicators in the studied ratings, since their tourism policy is not innovative but directed to extensive development. The cost of the tourist product in the countries of the second cluster remains low, though it is possible to observe creation of attractive destinations of various orientations both for anthropogenic and for mild tourism. The features of the general and tourism policy, international positioning, basic sustainability conditions, implementation of the global strategy of sustainable development, orientation to mild and elite tourism, multi-year competitive struggle for leading positions on the tourism market gave the ground for including France and the USA into separate clusters. China, which as a phenomenon of sustainable development, tourism activity, rapid improvement of its positions in a number of global ratings, was also determined as a separate cluster, however, attaining of the goals of sustainable development by it remains at the low level.

## 4. Conclusions

The transition of the international tourism to the principles of the sustainable development caused the need to determine the conceptual framework of sustainable tourism and a radical transformation of the basic principles of tourism. Implementation of 8, 12 and 14 goals of sustainable development led to rethinking of the recreational, communicative, integrating, adaptive, marketing and other functions of tourism in the context of its sustainability. Positioning of the kinds of tourism (anthropogenic, elite and mild) by the criterion of sustainability perception on the basis of identification of directions for development of the demand for international tourism, proposed in the paper, identifies the possibilities to promote sustainable tourism in the global economy.

In the course of the study, the structure of the factors of tourism sustainability index with the emphasis on the role of an immediate tourist was improved. The calculation of the level of importance of the factors of tourism sustainability, identified by us, determined that 3 out of 7 factors are the most important for tourists: safety factors, tourist service factors and factors of the basic sustainability state of a country. Economic sustainability and the political and regulatory environment turned out to be of almost no importance.

The proposed technique for tourism sustainability assessment made it possible to rank the studied countries by the degree of attractiveness for tourists. The basis for this technique is formed by the survey method and the method of expert estimates. It is recommended to cover as extensive target audience as possible for more confident application of this technique.

Based on the correlation analysis, 5 clusters by the level of tourism sustainability were constructed. The first cluster included Italy, Thailand and Spain, the second cluster included Turkey, Georgia, Tunis and Egypt. The third, the fourth, the fifth clusters were determined as separate countries, such as China, France and the USA.

Thus, the promotion of the sustainable tourism in the global economy requires a comprehensive approach, integrated with the global aims of sustainable development.

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