



Safe Development of the Tourism Industry in the European Space

Desarrollo seguro de la industria turística en el espacio europeo

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Abstract

The article considers the theoretical, methodological, and practical basis for the safe development of the tourism industry in the European space. The segments of safe development of the tourism industry between European Union (EU) countries have been identified, taking into account the factors of the internal and external environment of the tourist space. It is proved that the concept of cluster approach provides a secure competitive business and is based on the use of agglomerations, and network structures in enhancing the innovative development of tourism clusters in the EU. The structure of the EU Competitiveness Index in the safe environment of the tourism industry is determined. The number of tourism sub-regional clusters in EU member states is analyzed. The relationship between the EU Competitiveness Index in the tourism industry and its sub-indices is assessed. The optimal volume and growth rates of national income from travel in EU sub-regional clusters have been determined. The projected share of the total contribution of sub-regional clusters of EU countries to the national income from the tourism industry is calculated. The distribution of sub-regional clusters according to the degree of influence of sub-indices of safe development of the tourism industry between the EU countries is carried out.

Keywords: security, subregional clusters, competitiveness, national income, European Union.

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Resumen

Consideramos las bases teóricas, metodológicas y prácticas para un desarrollo seguro de la industria turística en el espacio europeo, identificando los segmentos de desarrollo seguro de la industria turística entre los países de la Unión Europea (UE), teniendo en cuenta los factores del entorno interno y externo del espacio turístico. Se demuestra que el concepto de enfoque de clúster proporciona un negocio competitivo seguro, basado en el uso de aglomeraciones y estructuras de red para mejorar el desarrollo innovador de los clústeres de turismo en la UE. Determinamos además la estructura del Índice de Competitividad de la UE en el entorno seguro de la industria del turismo, y analizamos el número de clústeres subregionales de turismo en los estados miembros de la UE. Para ello, se evalúa la relación entre el Índice de Competitividad de la UE en la industria del turismo y sus subíndices, determinando el volumen óptimo y las tasas de crecimiento de la renta nacional procedente de los viajes en los grupos subregionales de la UE. Finalmente, se calcula la parte proyectada de la contribución total de los clústeres subregionales de países de la UE al ingreso nacional de la industria del turismo y se realiza la distribución de clústeres subregionales según el grado de influencia de los subíndices de desarrollo seguro de la industria turística entre los países de la UE.

Palabras clave: seguridad, grupos subregionales, competitividad, ingreso nacional, Unión Europea.

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Introduction

In the conditions of the enlarged European Union and modern globalization processes, the influence of the tourism industry in the system of international economic relations is growing. The process of transforming the tourism industry into a mass, socially significant phenomenon is gaining large-scale planning and regulation, ensuring the effective functioning of tourism entities, intensifying their tourism policy to foreign and domestic course, with a complex system of methods and measures to influence tourism sector development.

It should be noted that in the conditions of the global European economic space, the basis of the formation of safe development of the tourism industry of the countries could not be exclusively internal orientation of development. It should be based on the generally accepted imperatives of safe inbound, social and amateur tourism, on the principles of sustainable development, which involves the preservation, reproduction, and restoration of tourism resources. Any country that enters the international tourism market comes into a complex system of competitive relations with other countries, as well as with entire regions of the world. Therefore, in the modern world economy, the safe development of the tourism industry should be aimed not only at developing the market of tourism services but also at creating conditions for employment, income growth, human capital, national and international partnerships.

The world economy, which is rapidly developing the market of services and international communications of tourism, lobbies for economic, investment, cultural, political, and other interests of states, creates effective factors for the socialization of recreational resources. In such conditions, there is an objective need for targeted influence on the processes of

transforming tourism into an effective factor in safe socio-economic development and the formation of investment attractiveness of the country. Such scientists as Cooper *et al.* (2005), Fletcher *et al.* (2013), and others have made a leading contribution to the study of the world market of tourism services. The works of such scientists as Angelevska-Najdeska and Rakicevik (2012), Fayos-Solà and Cooper (2019), Hall *et al.* (2006), and others are devoted to the formation of the principles of tourism policy of European countries, including Ukraine, in the context of safe tourism development.

The priority of our study is to identify segments of safe development of the tourism industry between EU countries, taking into account the factors of the internal and external environment of the tourist space, which allow identifying tourism clusters to implement tourism policy and transform infrastructure services for tourists.

Materials and methods

The concept of the cluster approach provides a secure competitive business and is based on the use of agglomerations, and network structures in intensifying the innovative development of tourism clusters in the EU. The importance of developing safe interaction of clusters with the state cannot be overestimated. The success of the cluster depends on such interaction by 80%. The state should coordinate natural market forces in order to integrate and restructure the economy (Yakusheva, 2006: 88-90), to support safe forms of transport infrastructure development of the tourism cluster, which weakens the barrier functions of political borders, allows developing a concept of transport corridors for traffic flows of passengers and cargo, which contribute to the formation of an integrated European space (Trusova *et al.*, 2020a: 1128-1130).

The concentration of transport corridors is an important innovative component of the tourism industry. It plays a significant role in shaping the safe development of subregions of the European Union, which are formed on the basis of tourism assets of tourism enterprises and include entities of different sectors related to tourist services (tour operators, hotels, the catering sector, souvenir manufacturers, transport companies). The creation of tourism clusters in certain sub-regions of the European Union provides an opportunity to increase the quality of socio-economic development, namely: to increase economic growth; increase additional value through the partial implementation of organizational and technological innovations in the tourism industry; to improve the quality and standard of living of the population (Trusova *et al.*, 2022b: 427-428).

The safe development of the tourism travel industry involves diversifying the economy of sub-regions by increasing the competitiveness of tourism enterprises, equipment suppliers, service providers, research and educational organizations, creating tourism resources that shape the tourism product, and, consequently, tourism infrastructure development. Identification of tourism resources provides an opportunity to identify the necessary elements of the cluster, which takes into account the traditions of a particular area, the specifics of leisure culture and identifies key tourism products, positioning the location of these resources to form the image of the sub-region (Kokkranikal *et al.*, 2011: 360). The sub-regional factor influences the formation of a safe tourism and recreational

cluster (TRC), for example, there is a complementary relationship based on tourism and recreational zoning (TPR). This process ensures the division of territories, with the identification of attractive features for tourists and vacationers, which differ from each other in the degree of competitiveness of transport infrastructure, and the system of tourism and recreation (Brouder, 2012: 384-387). The system-structural approach, which forms a safe tourism and recreational zoning in the cross-border areas of the EU and as a basis for tourist destinations, identifies the following objects of the development of the tourist travel industry (Marti *et al.*, 2017: 628-629; Trusova *et al.*, 2020c: 575-576; Trusova *et al.*, 2020d: 895-896):

- the largest sub-regions of the world: Europe; America; Southeast Asia and Oceania; Africa; the Middle East; South Asia.
- large geographical areas: Western Europe; Eastern Europe; North America; Latin America; Southwest Asia (Middle East); South Asia; Southeast Asia; Central and East Asia; Africa; Australia and Oceania.
- the country as a separate unit of tourism and recreational cross-border zoning for the analysis of international tourism (interstate flows) and the national economy.
- area is a territory that concentrates tourism-recreational and sanatorium-resort resources.
- core – a functional center for tourism development.
- loci – point elements in the functional centers (cores) of tourism development, which are formed on the basis of individual monuments, hotels, camps, rest homes, etc.

When planning TRC as an object of safe development of the tourism industry of the country (sub-region), landscape-route corridors are used, which connect areas, nuclei, and loci into a single territorial framework. At the same time, an important characteristic of TRC in the sub-regions is its specific structure. Important characteristics of the safe sub-regional level of TRC development are specific (average) indicators per unit of territory and per capita. Therefore, to diagnose the safe competitiveness of the market of tourism services of TRC, it is advisable to use the following stages (Boukas and Ziakas, 2014: 199-201; Carlisle *et al.*, 2016: 92-93):

1. identification of travel companies in this target market;
2. collection of source information;
3. reduction of natural, cost, and financial indicators to comparable weight;
4. determining the type of market according to the typology of marketing (seller's market, buyer's market);
5. calculation of indicators that reflect the state of the market (according to marketing methods);

6. determining the place of the travel agency (market shares) at the end of the base and analyzed periods;
7. calculation of indicators of competitiveness of sub-regions;
8. calculation of the degree of market monopolization;
9. multifactor dynamics of market shares of travel companies – competitors;
10. choice of the type of statistical distribution of market shares;
11. construction of a competitive map of the tourism market;
12. situational analysis and forecasting of competitive strategy in the market of a travel agency.

To diagnose the segments of the European competitive space by sub-regions and their parameters for the safe development of the tourism industry, we use cluster analysis, which identifies objects or events in a relatively homogeneous group (cluster), which should be similar and different from objects in other clusters. This allows for ensuring the synergy of the expected results of travel companies and their efficiency in the service industry. To calculate the efficiency of the European competitive space we use the indicator—the rate of safe growth of the final product (formula (1)) (Chen *et al.*, 2014: 310-311; Egilmez and Tatari, 2012: 1089-1890).

$$Q_y = \lambda + h_l b_l + h_k b_k, \quad (1)$$

where, Q_y – the rate of safe growth of the final product (national income), million EUR; λ – safe rates of tourist visits to the country, %; h_l – parameter of the degree of labor intensity; b_l – growth of labor productivity; h_k – parameter of the degree of capital intensity; b_k – increase in return on assets.

In setting this task, we should consider the features of the competitive environment in the market of tourism services and its impact on the safe level of competitiveness of economic entities in the sub-region. To this end, the examination of all tools for the safe development of the tourism industry and its manifestations in the external environment is carried out. At the same time, it should be borne in mind that the benchmarking of tourism services, taking into account the competitive advantages of other sub-regions, is also diagnosed in this market segment (Ivaniš, 2011: 242-245). Thus, the competition and competitiveness of sub-regions in the industry have a pronounced specificity of the tourism travel industry by adapting the basic tenets of competition theory.

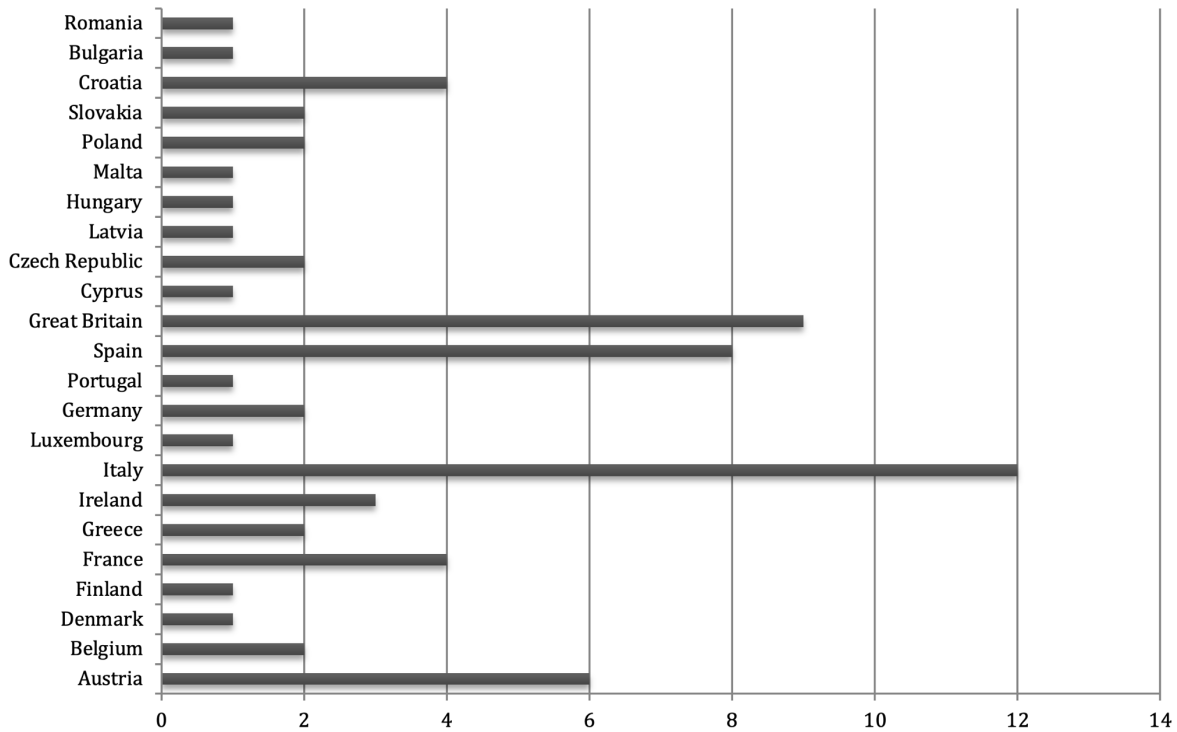
Results and discussion

Today, a number of tourism sub-regional clusters operate successfully in the EU. They are implemented, firstly, through government support for existing or emerging ones, and, secondly, using information on their successful or not-so-successful development in determining economic policy (Masip, 2017: 48-49). State support for tourism sub-regional clusters focuses on local (regional) enterprise groups. The focus is not on large but on small and medium-sized businesses, using domestic resources, as well as the potential of regional industry and services. For example, Denmark, France, the Netherlands, Portugal, Great Britain, Sweden, Belgium and Spain pursue a policy of supporting tourism sub-regional clusters at the national and regional levels. In other countries, such as Austria, Norway, Finland, Germany, and Italy, cluster development measures are used as a tool for innovation, technology, and regional policy (Masip, 2017: 48-49; Bloom Consulting, 2021).

Programs to support the safe development of EU countries are implemented in sub-regional tourism clusters. Thus, in Great Britain according to the European Regional Development Fund, two projects are being implemented, the first of which is aimed at creating a secure network of suppliers, local sources of funding, expanding information technology, increasing research, and transforming innovation into one of regional policy priorities. The second project is aimed at increasing the number of innovations in companies, developing cooperation and public-private partnerships, and increasing the efficiency of the use of tourism resources for the needs of innovative development. In the implementation of these programs, more attention is paid to the safe development of elements of regional innovation systems (United Nations, 2008). Significant rates of safe economic development in Austria are associated with the functioning of cross-border tourism links with countries such as Germany, Italy, Switzerland, Hungary, France, and Great Britain, which reduce regulatory barriers to innovation programs, provide specialization, and the formation of centers of competitiveness (Cooper *et al.*, 2005). Interest in the safe development of Italy's tourism sub-regional clusters is based on the experience of industrial districts located in the central and north-eastern parts of the country, characterized by a high degree of concentration of firms (usually small enterprises) combined into industrial centers with consistently high incomes and higher productivity. They provide 900 thousand jobs (54% of the number of all jobs in Italy) and 8.6% of jobs in this industry (Carlisle *et al.*, 2016: 90-92).

It should be noted that the EU member states of Central and Eastern Europe (Czech Republic, Hungary, Latvia, Poland, Croatia, and Romania) also apply the concept of tourism sub-regional cooperation, taking into account the general trend of economic development of EU member states by creating clusters in different areas of its distribution. This is evidenced by an international tourism organization, such as the UNWTO, which addresses the general issues of the safe operation of tourism sub-regional cluster associations at the national level (Figure 1).

Figure 1. Number of tourism sub-regional clusters in EU member states in 2020-2021
Figura 1. Número de clústeres subregionales de turismo en los estados miembros de la UE en 2020-2021



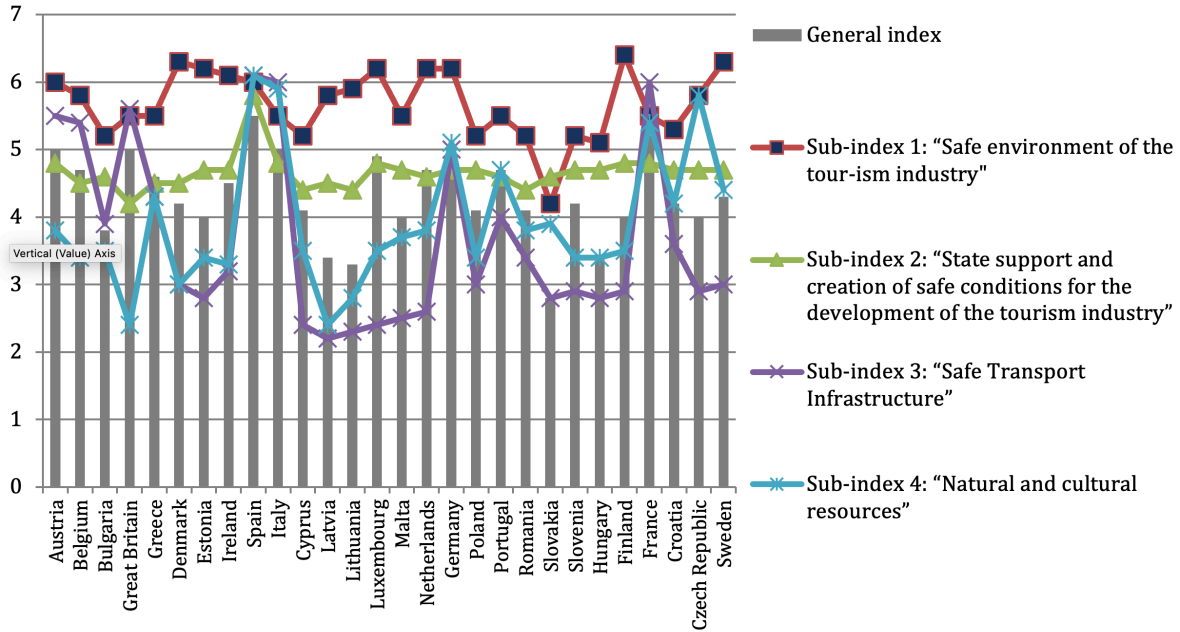
Source: own elaboration according to UNWTO 2022a and 2022b. Fuente: elaboración propia en base a UNTWTO 2022a y 2022b.

To analyze the European space for the level of safe development of the tourism industry, a sub-regional cluster model was used, which clearly forms the segmentation of countries according to the Competitiveness Index in Travel and Tourism 2020-2021. The index is formed based on indicators grouped into 14 components and combined into 4 sub-indices that characterize the safe environment of countries for tourism development, government support, transport infrastructure, and the availability of natural and cultural resources (Figure 2). A correlation analysis was performed, which proved the presence or absence of the relationship between the general Competitiveness Index of countries in the field of travel and tourism and its sub-indices. Thus, the lines of the general index of competitiveness of countries in the field of travel and tourism and sub-indices of safe transport infrastructure, as well as natural and cultural resources are of the same type. The results of correlation calculations also confirm the presence of a direct relationship between these components (Figure 3).

Safe transport infrastructure and its components (correlation coefficient equal to 0.9302) and natural and cultural resources (correlation coefficient equal to 0.8917) have the greatest impact on the EU Competitiveness Index in the EU travel industry. As for the safe environment of the tourism industry, its impact on the Competitiveness Index of countries is almost absent (correlation coefficient is equal to 0.4110). State support and its components in the conditions of the development of the European tourism space do not affect the competitiveness of countries in the field of travel and tourism (the correlation coefficient is equal to 0.1478).

Figure 2. Relationship between the EU Competitiveness Index in the tourism industry and its sub-indices in 2020-2021

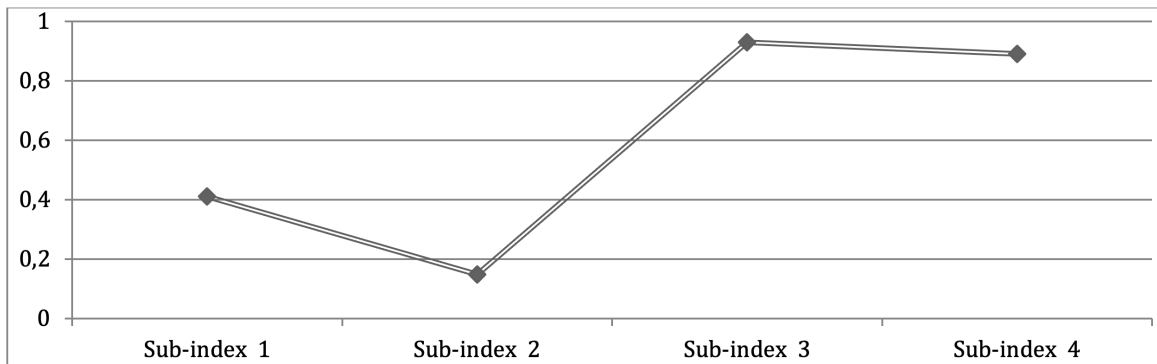
Figura 2. Relación entre el Índice de Competitividad de la UE en la industria del turismo y sus subíndices en 2020-2021



Source: own elaboration according to UNWTO 2022a and 2022b.
 Fuente: elaboración propia en base a UNTWTO 2022a y 2022b.

Figure 3. Correlation analysis between the EU Competitiveness Index in the tourism travel industry and its sub-indices in 2020-2021

Figura 3. Análisis de correlación entre el Índice de Competitividad de la UE en la industria de viajes turísticos y sus subíndices en 2020-2021

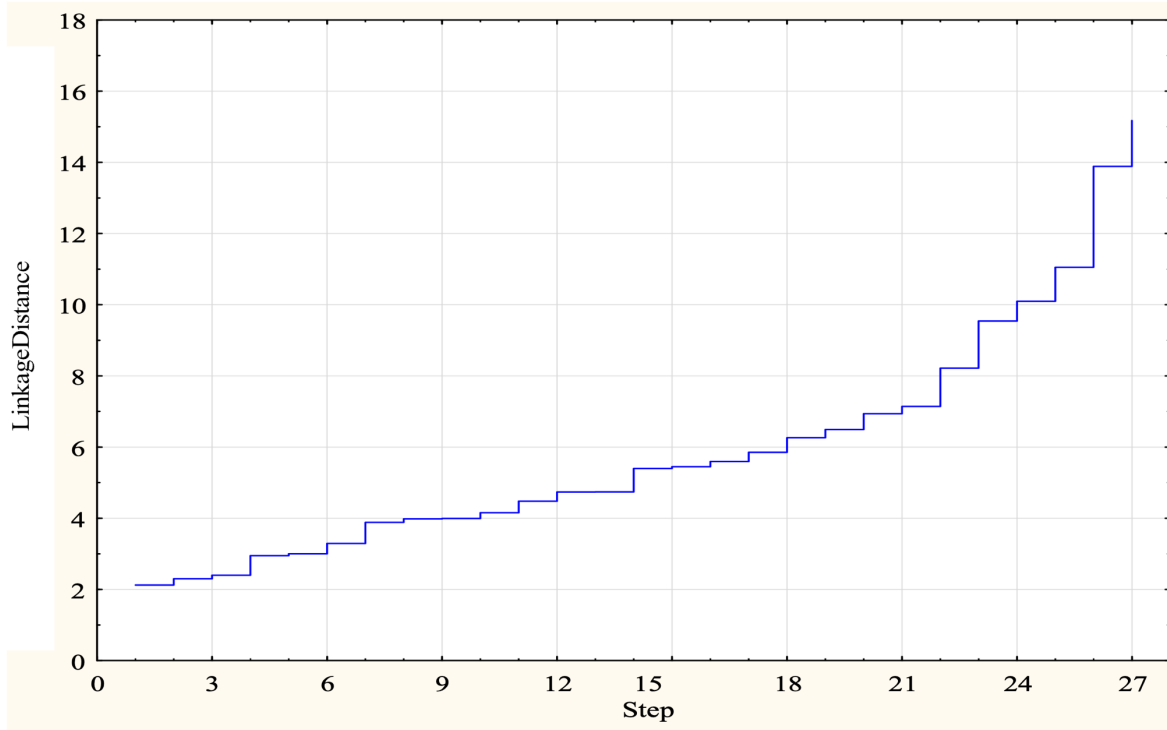


Source: own elaboration according to UNWTO 2022a and 2022b. Fuente: elaboración propia en base a UNTWTO 2022a y 2022b.

The components of the Competitiveness Index of the tourism industry for 28 EU countries are clustered according to the Ward method (“full link”) and determine their threshold distance, which is exceeded when interpreted in the criteria presented in Figure 4.

Figure 4. Schedule of unification of sub-regional clusters by objects of the tourism industry of the EU countries by the Ward method

Figura 4. Cronograma de unificación de clusters subregionales por objetos de la industria turística de los países de la UE por el método Ward



Source: own elaboration according to UNWTO 2022a and 2022b.
Fuente: elaboración propia en base a UNWTO 2022a y 2022b.

According to Figure 4, as a point of acceleration of functional possibilities of sub-regional clusters on objects of the tourism industry of the EU countries, the step under number 21 is defined. According to the similarity of the safe level of the development of the tourism industry, as well as competitiveness, countries are grouped into 7 sub-regional clusters (Table 1).

Euclidean distances between them are on average equal to 1, which indicates the objectivity of the calculations. Using the K-means method, the general level of the development of competitiveness of the EU countries in the tourism industry is determined. Thus, the average value of the Euclidean distance between selected sub-regional clusters of the EU countries in the tourism travel industry is 1.0343, which is exceeded only by clusters N^o 1 and N^o 2. High sanitary and hygienic standards, cultural wealth, and safety are the main advantages of competitiveness of the tourism industry in most European countries. We note that with the growing number of foreign tourists in Europe, international revenues from the tourism industry from 2020 are gradually declining. This is due to the beginning of the restructuring of the new tourism policy and the emergence of the threat of COVID-19 at the sub-regional level. The reason for this situation is a reduction of the cost of international travel and the reduction of purchasing power or low-cost propositions in the market. At the international level, the change in the number of tourists from North America to Asia is gradually changing the cost structure. These trends continue to develop, so the transformation of the competitiveness of the tourism industry in the European market is constantly increasing.

Despite the slight decline in security in Western and Southern Europe because of some terrorist attacks, this impact on international arrivals in the sub-regions is short-lived. The European sub-region is gradually improving its price competitiveness, compensating for the lack of public investment in the tourism industry. Despite the recent terrorist attacks and the growing threat of terrorism, indicators of the safe development of the tourism industry in France, Germany, and Belgium, have not decreased significantly.

Table 1. Euclidean distances between selected sub-regional clusters of EU countries in the tourism industry

Tabla 1. Distancias euclidianas entre grupos subregionales seleccionados de países de la UE en la industria del turismo

Cluster number	Cluster composition	Nº1	Nº2	Nº3	Nº4	Nº5	Nº8	Nº7	Hierarchy
Nº1	Great Britain Netherlands France	–	0.5136	1.5488	0.4230	0.6215	0.5525	1.3629	1.2766
Nº2	Spain Italy Germany	0.7166	–	1.2184	0.1020	0.2587	0.1926	0.8774	1.2465
Nº3	Ireland Luxembourg	1.2445	1.1038	–	1.0190	1.5570	1.4686	0.8537	1.0181
Nº4	Austria Greece Denmark Portugal Finland Sweden	0.6504	0.3194	1.0094	–	0.2704	0.1898	0.7494	0.9873
Nº5	Cyprus Malta	0.7884	0.5088	1.2478	0.5200	–	0.4156	0.7494	0.948
Nº6	Estonia Latvia Lithuania	0.7433	0.4388	1.2118	0.4357	0.6446	–	1.2197	0.8820
Nº7	Belgium Bulgaria Poland Romania Slovakia Slovenia Hungary Croatia Czech Republic	1.1674	0.9367	0.9239	0.8657	0.8657	1.1044	–	0.8808

Source: own elaboration according to UNWTO 2022a and 2022b.
Fuente: elaboración propia en base a UNWTO 2022a y 2022b.

This confirms the high resilience of the tourism industry to stressful situations and a high level of general safety. In addition, since 2020, the countries of Southern Europe have improved cultural and natural resources and strengthened the security of tourist transport infrastructure for customer service, as well as the business environment of tourism enterprises, which has increased the effectiveness of environmental sustainability indicators. In the sub-regions of Western and Northern Europe, these indicators are much

lower. However, these sub-regions provide more favorable conditions for the safe development of information technology systems and transport infrastructure in general, but at the same time do not pay enough attention to natural and cultural resources. In the Balkans and Eastern Europe, price competitiveness is a significant positive aspect, but sub-regions are still under-investing air and cultural resources. Therefore, international openness in these sub-regions has a tendency to weaken more the security of the tourism travel industry than in Western Europe. The Eurasian sub-region has more qualified and efficient human resources, providing a secure competitive advantage in pricing policy by reducing hotel and transportation costs (Tsal-Tsalko, 2021a).

To study the safe development of the tourism industry and the effectiveness of the European tourism area, we determined the average national income in EU sub-regions under the influence of economic factors for 2022-2023 on the optimal criteria, which are presented by such indicators as:

1. the pace of tourist visits to the country;
2. parameter of the degree of labor intensity through the indicator of the total contribution to employment;
3. growth of labor productivity due to the rate of dynamics of direct contribution to employment, in% of GDP;
4. parameter of the degree of capital intensity through the indicator of state expenditures on tourism;
5. increase in return on assets due to the total investment in tourism, in% of GDP.
6. Table 2 shows the sub-regions of cluster N^o 1, which includes such countries as Great Britain, the Netherlands, and France.

Table 2. Optimal growth rates of national income from tourist industry in the sub-regions of the cluster N^o 1 on average for 2022-2023

Tabla 2. Tasas de crecimiento óptimas del ingreso nacional de la industria turística en las subregiones del clúster N^o 1 en promedio para 2022-2023

Cluster sub-regions	Number of tourists, thousand people	λ , %	h_p , million EUR	Q_p , in%to GDP	h_k , million EUR	b_k , in %to GDP	b_y , million EUR
Great Britain	35814.0	4	4055	11.6	1800.0	5.2	268.35
Netherlands	15828.0	5.47	664.5	8.9	600.0	2.9	115.40
France	82570.0	-2.23	2830.5	10	2300.0	6.9	189.97
Average value	44737.3	–	7550	–	4700.0	–	191.24
Amount	134212.0	–	2516.6	–	1566.6	–	573.72

Source: own elaboration according to UNWTO 2022a and 2022b.
Fuente: elaboración propia en base a UNWTO 2022a y 2022b

Table 3 shows the sub-regions of cluster N^o 2, which includes the following countries Spain, Italy, and Germany.

Table 3. Optimal growth rates of national income from tourist industry in the sub-regions of the cluster N^o 2 on average for 2022-2023

Tabla 3. Tasas de crecimiento óptimas del ingreso nacional de la industria turística en las subregiones del clúster N^o 2 en promedio para 2022-2023

Cluster sub-regions	Number of tourists, thousand people	λ , %	h_p , million EUR	Q_p , in % to GDP	h_k , million EUR	b_k , in %to GDP	b_y , million EUR
Spain	75315.0	10.47	2838.4	15.1	200.0	7.7	214.95
Italy	52372.0	3.23	3394.7	14.7	160.0	3.4	107.10
Germany	35555.0	1.67	6591.3	13.8	1900.0	3.7	199.39
Average value	54414.0	–	4274,8	–	753.3	–	173.81
Amount	163242.0	–	12824.4	–	2260	–	521.44

Source: own elaboration according to UNWTO 2022a and 2022b.
Fuente: elaboración propia en base a UNTWTO 2022a y 2022b.

Table 4 shows the sub-regions of cluster N^o 3, which includes the following countries Ireland and Luxembourg.

Table 4. Optimal growth rates of national income from tourist industry in the sub-regions of the cluster N^o 3 on average for 2022-2023

Tabla 4. Tasas de crecimiento óptimas del ingreso nacional de la industria turística en las subregiones del clúster N^o 3 en promedio para 2022-2023

Cluster sub-regions	Number of tourists, thousand people	λ , %	h_p , million EUR	Q_p , in % to GDP	h_k , million EUR	b_k , in %to GDP	b_y , million EUR
Ireland	10100.0	6.00	122.1	5.9	200.0	11.00	223.82
Luxembourg	1054.0	-3.30	15.7	6.1	100.0	6.6	622.89
Average value	5577.0	–	68.9	–	150.0	–	423.35
Amount	11154.0	–	137.8	–	300.0	–	846.71

Source: own elaboration according to UNWTO 2022a and 2022b.
Fuente: elaboración propia en base a UNTWTO 2022a y 2022b.

Table 5 shows the sub-regions of cluster N^o 4, which includes the following countries Austria, Greece, Denmark, Portugal, Finland, and Sweden.

Table 5. Optimal growth rates of national income from tourist industry in the sub-regions of the cluster N^o 4 on average for 2022-2023

Tabla 5. Tasas de crecimiento óptimas del ingreso nacional de la industria turística en las subregiones del clúster N^o 4 en promedio para 2022-2023

Cluster sub-regions	Number of tourists, thousand people	λ , %	h_i , million EUR	Q_i , in % to GDP	h_k , million EUR	b_k , in %to GDP	b_y , million EUR
Austria	28121.0	5.21	713.2	16.1	500.0	4.1	78.11
Greece	24799.0	5.08	934.4	24.8	10.0	15.9	69.20
Denmark	10781.0	3.42	213.5	7.8	20.0	5.3	101.74
Portugal	11223.0	12.71	967.6	20.4	300.0	10.2	285.37
Finland	2789.0	6.37	227.5	9.0	20.0	3.8	278.87
Sweden	6782.0	4.63	557.6	11.1	400.0	3.3	199.26
Average value	14082.5	–	602.3	–	208.3	–	168.76
Amount	84495.0	–	3613.8	–	1250.0	–	1012.55

Source: own elaboration according to UNWTO 2022a and 2022b.
Fuente: elaboración propia en base a UNWTO 2022a y 2022b.

Table 6 shows the sub-regions of cluster N^o 5, which includes the following countries Cyprus and Malta.

Table 6. Optimal growth rates of national income from tourist industry in the sub-regions of the cluster N^o 5 on average for 2022-2023

Tabla 6. Tasas de crecimiento óptimas del ingreso nacional de la industria turística en las subregiones del clúster N^o 5 en promedio para 2022-2023

Cluster sub-regions	Number of tourists, thousand people	λ , %	h_i , million EUR	Q_i , in % to GDP	h_k , million EUR	b_k , in %to GDP	b_y , million EUR
Cyprus	3187.0	19.86	85.2	22.7	100.0	12.00	396.39
Malta	1966.0	10.26	55.4	28.3	100.0	11.2	579.95
Average value	2576.5	–	70.3	–	100.0	–	488.17
Amount	5153.0	–	140.6	–	200.0	–	976.34

Source: own elaboration according to UNWTO 2022a and 2022b.
Fuente: elaboración propia en base a UNWTO 2022a y 2022b.

Table 7 shows the sub-regions of cluster N^o 6, which includes the following countries Estonia, Latvia, and Lithuania.

Table 7. *Optimal growth rates of national income from tourist industry in the sub-regions of the cluster N^o 6 on average for 2022-2023*

Tabla 7. Tasas de crecimiento óptimas del ingreso nacional de la industria turística en las subregiones del clúster N^o 6 en promedio para 2022-2023

Cluster sub-regions	Number of tourists, thousand people	λ , %	h_p million EUR	Q_p in % to GDP	h_k million EUR	b_k in %to GDP	b_y million EUR
Estonia	3147.0	5.29	99.4	15.3	100.0	7.4	240.44
Latvia	1793.0	-11.41	79.5	8.9	100.0	6.3	339.96
Lithuania	2296.0	10.86	65.3	4.8	100.0	3.2	150.23
Average value	2412.0	–	81.4	–	100.0	–	243.54
Amount	7236.0	–	244.2	–	300.0	–	730.62

Source: own elaboration according to UNWTO 2022a and 2022b.
Fuente: elaboración propia en base a UNWTO 2022a y 2022b.

Table 8 shows the sub-regions of cluster N^o 7, which includes the following countries Belgium, Bulgaria, Poland, Romania, Slovakia, Slovenia, Hungary, Croatia, and Czech Republic.

Table 8. *Optimal growth rates of national income from tourist industry in the sub-regions of the cluster N^o 7 on average for 2022-2023*

Tabla 8. Tasas de crecimiento óptimas del ingreso nacional de la industria turística en las subregiones del clúster N^o 7 en promedio para 2022-2023

Cluster sub-regions	Number of tourists, thousand people	λ , %	h_p million EUR	Q_p in % to GDP	h_k million EUR	b_k in %to GDP	b_y million EUR
Belgium	7481.0	-10.46	285.2	6.00	500.0	2.3	143.26
Bulgaria	8252.0	-16.24	335.6	10.8	100.0	7.4	105.92
Poland	17471.0	4.44	738.2	4.5	300.0	3.0	55.95
Romania	10223.0	9.56	529.1	6.3	100.0	8.1	88.79
Slovakia	2027.0	17.78	155.7	6.1	100.0	4.0	215.11
Slovenia	3032.0	12.01	101.3	12.3	100.0	8.8	302.25
Hungary	5302.0	7.57	323.8	7.3	200.0	4.5	177.32
Croatia	13809.0	8.88	320.5	23.5	100.0	10.9	87.82
Czech Republic	9321.0	7.05	7.05	9.4	200.0	3.6	84.30
Average value	9546.4	–	322.7	–	188.8	–	147.05
Amount	76918.0	–	2904.9	–	1700.0	–	1176.42

Source: own elaboration according to UNWTO 2022a and 2022b.
Fuente: elaboración propia en base a UNWTO 2022a y 2022b.

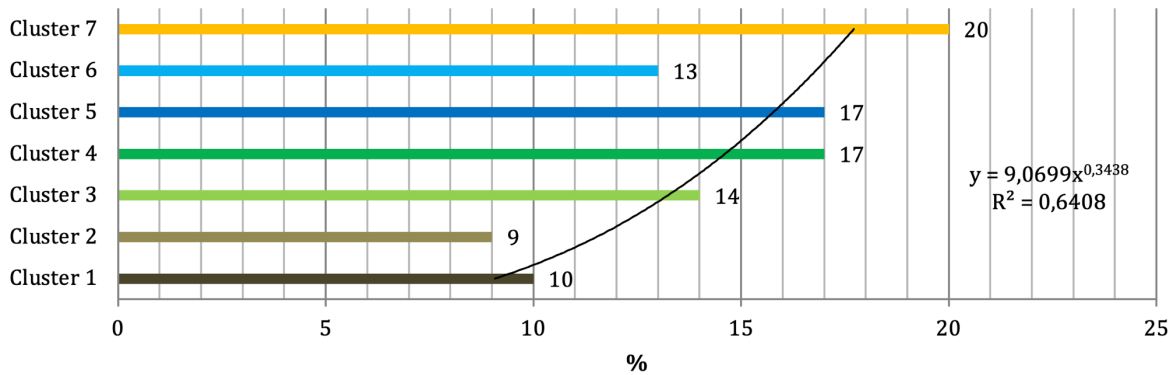
Thus, in 2022-2023, the largest amount of national income from the tourism industry will be received by Malta and Luxembourg. Significant increase in national income will be received by Finland, Slovenia, Portugal, Latvia, Cyprus, Spain, Ireland, Estonia, and Great Britain, the smallest—by Poland and Greece. In general, during the forecast period, the tourism industry in the sub-regional clusters of the EU countries will increase the revenue side of the budget by almost 6 billion EUR.

Figure 5 shows the share of each tourism sub-regional cluster in terms of the total contribution to the national income from the tourism industry.

Thus, the optimal distribution of the total contribution of national income between sub-regional clusters of the EU countries from the tourism industry is in the range from 9 to 20%. However, according to the forecast, the largest share of income (20% or 1176 million EUR) will be received by EU countries in cluster N° 7 (Belgium, Bulgaria, Poland, Romania, Slovakia, Slovenia, Hungary, Croatia, Czech Republic), and the smallest—9% or 521 million EUR—the countries of cluster N°2 (Spain, Italy, Germany). This uniformity confirms the objectivity of the segmentation of the European tourist area and the optimal number of selected seven clusters (Tsal-Tsalko, 2021b).

Figure 5. Estimated share of the total contribution of sub-regional clusters of the EU countries to the national income from the tourism industry on average in 2022-2023, %

Figura 5. Proporción estimada de la contribución total de los clústeres subregionales de los países de la UE al ingreso nacional de la industria del turismo en promedio en 2022-2023, %



Source: own elaboration according to UNWTO 2022a and 2022b. Fuente: elaboración propia en base a UNWTO 2022a y 2022b.

The projected amount of national income from the tourism industry on average for each of the sub-regional clusters confirms the potential territorial differences between EU countries (Figure 6).

Figure 6. Estimated amount of national income from the tourism industry between sub-regional clusters of the EU countries on average for 2022-2023, million EUR

Figura 6. Cantidad estimada de ingresos nacionales de la industria del turismo entre grupos subregionales de los países de la UE en promedio para 2022-2023, millones EUR



Source: own elaboration. Fuente: elaboración propia.

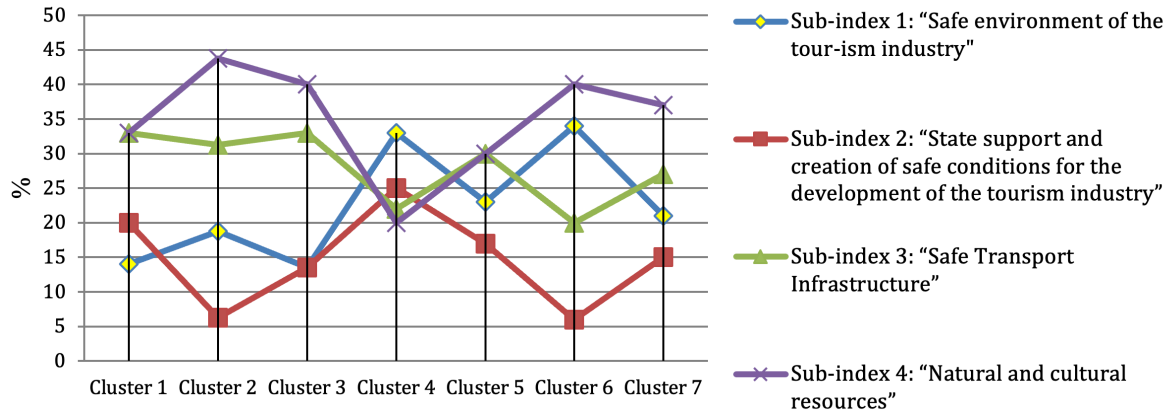
According to forecast calculations, the leader in national income in 2022-2023 is the EU countries of sub-regional cluster Nº5 (Cyprus and Malta); EU countries in sub-regional clusters Nº 3 and Nº 6 will receive on average approximately 250 million EUR in revenue from the travel tourism industry. In EU countries of sub-regional clusters, Nº1, Nº 2, Nº 4 and Nº 7 the amount of income will increase on average by 170 million EUR. Thus, the safe functioning of the European tourist area has significant territorial differences in the main indicators of the economic environment of their location, namely: the growth of national income, the share of the tourism industry in GDP, the number of international tourists, and their average travel costs.

The forecast of factor impact on the safe development of the European tourist area in the context of selected sub-regional clusters is made and the percentage of the impact of the above-analyzed sub-indices on the safe economic environment of EU countries is determined (Figure 7).

Thus, sub-indices for Austria, Greece, Denmark, Portugal, Finland, Sweden, Estonia, Latvia, and Lithuania gain considerable importance. State support and the creation of safe conditions for the development of the tourism industry are especially important for Austria, Greece, Denmark, Portugal, Finland, Sweden, Great Britain, Netherlands, and France. The development of safe transport infrastructure is an important factor in the development of all countries of the European tourist area; however, it has the greatest impact on Great Britain, Netherlands, France, Spain, Italy, Germany, Spain, Italy, Germany, Cyprus, and Malta. The resource component of the safe development of the tourism travel industry has the greatest impact on Spain, Italy, Germany, Ireland, and Luxembourg.

Figure 7. Distribution of sub-regional clusters according to the degree of influence of sub-indices of safe development of the tourism travel industry between the EU countries on average for 2022-2023, %

Figura 7. Distribución de clústeres subregionales según el grado de influencia de los subíndices de desarrollo seguro de la industria de viajes turísticos entre los países de la UE en promedio para 2022-2023, %



Source: own elaboration. Fuente: elaboración propia.

Despite the fact that the countries of the European tourist area have some differences, in general, the greatest impact on the safe development of the tourism travel industry belongs to a resource component (35%), the second most important component is the degree of safe development of transport infrastructure (28%), the third—a safe environment for the tourism industry (22%). State support and the creation of safe conditions for the development of the tourism industry has only a 15% of the impact. At the same time, it should be noted that the tourism industry plays an important role in the context of secure economic and social development, as well as in the reproduction of structural funds of the European Union for the formation of tourism policy, which is aimed at implementing government projects to finance business structures of individual territories, the introduction of new information technologies and innovations. Ensuring the reshaping of the economy of the sub-regions for capitalizing of the sources of investment in transport infrastructure can stimulate business activity of small tourism enterprises, create new jobs and increase productivity in this tourism sector. All these actions have a positive impact on improving the security of economic activity and employment.

Conclusions

Thus, the safe development of the tourism policy of the European Union is clearly aimed at coordinating the protection of tourists and their free movement between countries, protecting them from unfair advertising, harmonization of insurance policies, and information about their social rights. In addition, the harmonization of the rules for the safe operation of enterprises in the tourism industry in different EU countries has great tourism potential. The success of the EU member states in the field of tourism in the international market is explained not only by a successful pan-European policy but also by a competent policy in the field of development and promotion of national

tourism products at the local level. The European Union provides financial security for the development of tourism infrastructure in the sub-regions. However, tourism policy in the EU sub-regions is based on the principle of full independence of the participating countries in choosing the vector of the development of the national tourism industry. Therefore, it is necessary to develop numerous programs for interregional cooperation between EU member states with different development of tourism infrastructure, which should develop and implement new technologies to increase the competitiveness of their tourism product. This will be a positive dynamic factor in increasing the number of tourists flows to EU countries.

Summarizing the combination of the above factors of tourism development and the results of the study, we can confidently state that the relevance of the listed aspects of tourism in Europe is largely due to the importance of the analysis in the context of the research potential of the tourism industry in question, which in turn naturally leads to unambiguous conclusions about the importance of the further study of the issue in diversified scientific papers due to the wide range of issues raised by the topic that requires more detailed consideration, such as economic aspects, socio-cultural and demographic subtleties of tourism potential, as well as the development of the tourism industry in certain countries.

The need for a balanced policy of both the EU as a whole and its individual sub-regions is due to the need to manage a comprehensive process of transformation of modern tourism infrastructure to form an economic and social institutional platform that generates innovation and productive interaction to ensure security and continuous improvement of tourist services through the development of recreational facilities at the local community level and the functioning of inland areas, obtaining economic benefits from tourism with increasing incentives to use the cultural, social and economic characteristics of the resort regions, the development of annual tourism policy, which provides continuous optimization of sources of satisfaction of tourists' needs.

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