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Strategic Vectors of Coastal Tourism Development as a Blue Economy Component in the International Dimension

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Abstract: The blue economy covers various scientific areas and types of socio-economic activity that are related to each other: fisheries, shipping, tourism (beach and cruise), transportation, logistics, alternative energy, ecology, water management, climate change and biosphere conservation. It was found that coastal tourism occupies an important place in the system of the Blue Economy. According to the set of indicators: The Travel and Tourism Competitiveness Index, International tourist arrivals, thousands, Travel and Tourism industry GDP, and Employment in the tourism and travel sphere, a cluster analysis has been created for leading countries. As a result of the analysis, 9 clusters have been formed, for each of which strategic vectors of development were determined. The coastline of all countries in the world is 1162.3 million km. The longest coastline belongs to Canada – 202080 km. Relative indicators per 1 km of coastline as international tourist arrivals, international tourism inbound receipts, Tourism and Travel industry GDP have been considered. It has been substantiated that the Spanish coastal tourism industry deserves special attention. There are 17 coastal areas and more than 2,000 beaches in Spain.

Keywords: blue economy; costal tourism; indicators of costal tourism development; cluster analysis; Spain.
JEL Classification: F01; F 29; L 51; Z32; R11.

Introduction

The main goal of economic activity at all managerial levels is to ensure the highest efficiency in conditions of limited resources. The higher the level of development of the country, the greater the consumption. At the same time, innovative technologies, which are owned by countries with a high level of technical development, ensure energy and resource saving in the production of goods, performance of work, and provision of services. The methods, ways and intensity of the use of resources, first of all, depend on the type of these resources and their importance in the sectoral structure of the state economy. A special role for the socio-economic development of

most countries is played by the resources of the world's oceans. Even countries that do not have access to the sea or ocean actively use water resources, such as rivers.

The world ocean is an important component of the biosphere and makes up approximately 95% of its structure. The biosphere is the natural shell of the earth, it is a self-organized, self-regulating, self-healing system that is able to maintain an ecological balance through natural processes. The world's ocean regenerates itself better than other types of natural resources. The main functions of the ocean in supporting the life of mankind are the production of oxygen, the absorption of carbon dioxide, the regulation of the global climate and temperature, it produces useful substances, is a source of a significant amount of minerals, absorbs negative emissions into the atmosphere, breaks down waste, is a source of food production, allows to transport people and goods with a sufficiently high level of efficiency, is a key resource for the development of the tourism industry, as well as a powerful source for the generation of alternative energy. These areas of activity are combined in the conceptual research direction 'Blue Economy'. This concept is quite new but is gaining more and more popularity and importance in the global environment. The Blue Economy is in the focus of attention of scientists whose research is involved in sustainable development, climate change, logistics, tourism, food security, energy, etc. The importance of this area of research is constantly growing, given the aggravation of global problems of mankind, the growth in the level of socio-economic activity throughout the world, the discovery of new opportunities based on the use of the resources of the oceans, which determines the relevance of research in this direction.

The objective of the study is the conceptual consideration of the blue economy from the standpoint of various vectors, the construction of the blue economy conceptual structure; identification of trends in the blue economy in the world and in particular in the European Union; identify the place in the blue economy structure and analyze indicators of the coastal tourism development; to make a cluster analysis and propose strategies for leading countries in terms of coastal tourism development; to diagnostic the main indicators of tourism development per 1 km of coastline and their correlation; to identify the Spain coastal tourism potential.

1. Literature Review

1.1. Conceptual Bases of the Blue Economy

The issue of the blue economy is relatively new in the theory and practice of economic relations. The urgency of its development is primarily due to increasing attention to the relationship in the system of economy, society and ecology. Scientists are currently paying special focus to the problems of the world's oceans, given its important role in ensuring livelihoods.

The importance of the seas and oceans resources for socio-economic development has been considered in their work by Bennett 2018; Botero, Fanning, Milanes, Planas 2016; Ferreira, Johnson, da Silva, Ramos 2018; Fraschetti, *et al.* 2018; Hemer, Manasseh, McInnes, Penesis, Pitman 2018; Malone, DiGiacomo, Gonçalves, Knap, Talaue-McManus, de Mora 2014; Salpin, Onwuasoanya, Bourrel, Swaddling 2018. These works consider the problems of marine resources, their types, importance for the economy.

By Michael V. B. the ocean without caring what we do towards its wellbeing, it continues to support all lives by generating oxygen, absorbing carbon dioxide, recycling nutrients and regulating global climate and temperature; it provides a substantial portion of the global population with food and livelihood and is the means of transportation for 80% of global trade; the marine and coastal fronts bestow a key resource to the tourism industry; provide all elements for tourism development of the familiar concept of 'sun, sand and sea' and help the diverse and expanding domain of nature-based tourism (Michael 2012). The relevance of the blue economy development is emphasized in the works by Pauli, G., he notes that it's time to move to a competitive business model that allows manufacturers to offer better products at lower prices while innovating in ways that not only increase profits, but also benefit the environment; this economic philosophy is called the 'blue economy' (Pauli 2010). Undoubtedly, ocean resources generate numerous benefits to the world economy and offer essential opportunities for transportation, food production, energy, mineral extraction, biotechnology, human settlement in coastal areas, tourism and recreation, and scientific research (Kaczynski 2011).

Issues of the blue economy development as a whole as a science have been considered by Eikeset, Mazzarella, Davidsdottir, Klinger, Levin, Rovenskaya, Stenseth 2018; Scientists look at the main factors in the growth of the blue economy, as well as its relationship with sustainable development. Similar issues of blue economy development, but from different points of view, are also considered by Visbeck, *et al.* 2014; Voyer, Quirk, McIlgorm, Azmi 2018; Winder, Le Heron 2017.

A new approach to understanding of the ocean importance in the economy and life has been proposed by Winder, G.M., and R. Le Heron: the BE paradigm presents the ocean through competing discourses – as a space for wealth creation in response to continued world poverty and inequality, and as a threatened and vulnerable

ecosystem in need of protection in response to profound changes resulting from climate change, pollution, over-fishing, and habitat destruction. BE conceptions have reframed the oceans in the manner of a land-based resource assemblage, rather than an inhospitable realm to be explored and feared. As such it can be managed and developed, allocated as property, opened to markets, and governed (Winder and Le Heron 2017). Today, the blue economy is a theory supported by more than 180 concrete projects already implemented, which show that with less investment you can make more money, create new jobs and compete in the global market (Brears, 2021).

1.2. Blue Economy in the Sustainable Development Context

The active development of the blue economy began after the adoption of the Concept of Sustainable Development in Rio de Janeiro in 1992. The importance of oceans for sustainable development has been recognized from the beginning of the UNCED process, Agenda 21, the Johannesburg Plan, implementation and reaffirmation of which has been documented in the Rio+20 Conference; ongoing trends of exploitation and therefore the degradation of marine and coastal ecosystems show that endeavors to date to ensure sustainable developments have been insufficient (Blue Economy, 2014; What is the Blue Economy, 2017).

The importance of the blue economy for the concept of sustainable development implementation has been considered by García-Quijano 2009; Griggs *et al.* 2013; Hays *et al.* 2016; Kern and Söderström 2018; Lundberg 2013; Ntona and Morgera 2018; Potts *et al.* 2016; Stead 2018; Virto 2018; Waiti and Lorrenij 2018; Yang, Wang, Cao, Liu, Chen 2016.

The Sustainable Development Concept has been implemented for 30 years and acquires new features in view of the new problems emergence related to the harmonization of relations between social, economic and environmental spheres. The role of the blue economy in the Sustainable Development Concept is becoming increasingly important as new vectors and opportunities to exploit the potential of the seas and oceans in specific countries and the world at large.

The blue economy is defined by the World Bank as the 'sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health' (World Bank). The World Bank administers PROBLUE, a trust fund that supports 'healthy and productive oceans' (PROBLUE), and the World Wide Fund for Nature (WWF) 'works with the EU to ensure that the blue economy's growth is tied to sustainable economies on both land and at sea' (WWF).

Table 1 shows the main concepts regarding the justification of the essence of the blue economy.

The seabed provides 32 % of the global supply of hydrocarbons and exploration is extending towards the deep sea. Technological advancements are opening new frontiers of marine resource developments ranging from bioprospecting to the mining of seabed minerals. The sea also offers vast potential for production of renewable 'blue energy' from wind, wave, tide as well as from thermal and biomass sources (Blue Economy).

The issue of the blue economy is increasingly viewed from the standpoint of governance and government regulation. These issues have been considered in papers by Christie *et al.* 2017; De Santo 2013; Ehlers 2016; Granit, Liss Lymer, Olsen, Tengberg, Nõmmann, Clausen 2017; Hassler, *et al.* 2018; Islam and Shamsuddoha 2018; Kamat 2018; Niner, Milligan, Jones, Styan 2017; Portman 2014; Russel, den Uyl, De Vito 2018; Vaidianu and Ristea 2018.

The issue of governance in the blue economy covers the problems of strategies and programs for the development of this economy's sector and its individual components; state support of priority industries and activities; risk assessment and management; motivating stakeholders in the blue economy to save resources and restore resources. An example of a comprehensive strategy for the development of the blue economy is the strategy of African countries, for which the blue economy is important.

The 2050 Africa Integrated Maritime Strategy adopted by the African Union recognizes the 'urgent imperative to develop a sustainable 'blue economy' initiative', and envisages the blue economy as the 'New Frontier of African Renaissance'; the first 'Sustainable Blue Economy' conference was held in November 2018 in Nairobi, Kenya and gathered a wide range of actors, from political and business leaders to the UN and other intergovernmental organizations, scientific experts and members of civil society (Sustainable Blue Economy).

The problems of the development of the blue economy in Ukraine in the conditions of war are studied in many works. Ukraine has significant potential for the development of various branches of the blue economy, however, in the conditions of the temporary occupation of part of the coastal territories, there is a significant threat to the potential of the blue economy (Parsyak, V., Zhukova, O., and Vashchylenko, A. 2023).

Table 1. Conceptual approaches to essence of definition 'Blue Economy'

Authors	Characteristics of concepts
Craven, 1982; Sherman, 1986	Research the problem of water use.
Pauli, 2010	The blue economy is a new economic philosophy that appears in the time of moving to a competitive business model that allows producers to offer better products at lower prices and innovate in ways that not only increase profits but also benefit the environment.
Silver *et al.* 2015	Determined how the definition 'blue economy' use and locate its articulation within four human–ocean relations vectors: oceans as natural capital, oceans as good business, oceans as integral to Pacific Small Island Developing States (SIDS), and oceans as small-scale fisheries livelihoods.
Winder and Le Heron, 2017	The BE paradigm characterizes the ocean as a space for wealth formation in response to world inequality and poverty, and as a vulnerable and threatened ecosystem in need of protection against profound changes resulting from pollution, climate change, over-fishing, and habitat destruction.
Nash, 2018	Considered the blue economy through the achievement of sustainable efficiency, which is achieved by replacing what does not require the development of new industries, offers a significant number of new jobs, valuable products and social justice.
Voyer *et al.* 2018	Considered the Blue Economy as a manifestation of sustainable development thinking in which the environment is exploited for societal needs but protected at the same time.
Rao, 2020	The main focus of the blue economy is on the world's oceans, seas, and everything connected with them
Brears, 2021	The blue economy is a theory supported by more than 180 concrete projects already implemented, which show that with less investment you can make more money, create new jobs and compete in the global market
Sverdan, 2021	Considered the blue economy as a new trend in social development and noted the paradox of the green economy is that production structures receive environmental rewards for reducing emissions, even if they continue to pollute. In this case, society needs a new way of developing like a Blue Economy.
Buono, 2021	The backbone of the blue economy should be technology and industries that cannot harm the oceans.
Celine Germond-Duret, 2022	Research the acceptance and endorsement of the blue economy that based on a perception of the sea as placeless, and the diffusion of development and sustainability norms from land to sea. Author uses a horizontal reciprocity framework to characterize the projection of norms within the land–sea relationship and explain three concepts—reciprocity, horizontality and normalization.

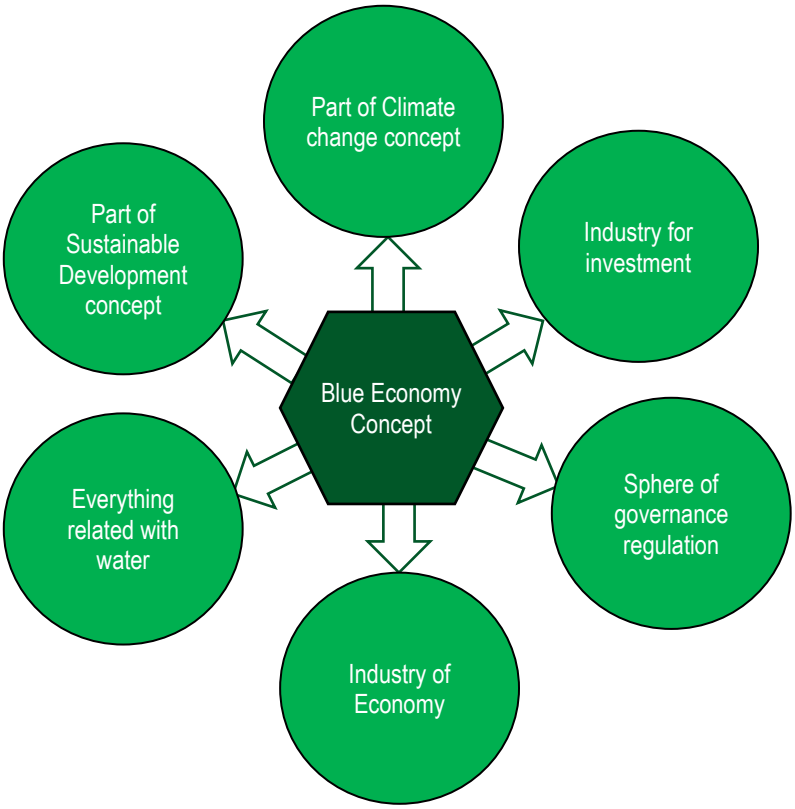
Source: summarized by authors.

The BE aims to promote economic growth, improve life and social inclusion without compromising the oceans' environmental sustainability and coastal areas since the sea's resources are limited and their physical conditions have been harmed by human actions (Office of the European Union). In recent years the term Blue Economy (BE) has become a concept closely related to maritime resources and developed economies in the oceans; its growing expansion and the emerging needs of a circular economy (an economic model oriented towards the elimination of waste generated, efficient use of resources, recycling and recovery (Mah 2021; Shojaei, Ketabi, Razkenari, Hakim, Wang 2021) herald challenges in both new and established treatments and materials (Cristiani 2017).

The blue economy encompasses many activities related to the sea and ocean resources using. At the same time, the sphere of coastal tourism deserves special attention. Tourism is an indicator of socio-economic country's development, because on the one hand it performs a reproductive function – the human capacity for work restoration, on the other hand, reflects the level of country's development. Ecotourism is gaining popularity (Walker and Weiler 2017), which emphasizes the need to green coastal areas and increase attention to compliance with environmental norms and standards (Domínguez-Tejo, Metternicht, Johnston, Hedge 2018). Thus, the importance of coastal tourism and significant prospects require the search for new ideas for the development of this industry.

Thus, the blue economy concept has been evolving over the past decades, every year it acquires new features and plays an increasingly important role in the implementation of the sustainable development concept. The concept of the blue economy is multi-vector (Figure 1).

Figure 1. Blue Economy conceptual vectors



Source: systematized by authors.

The multi-vector nature of the Blue Economy concept determines the choice of research methods, as well as priorities in conducting research in this scientific field.

2. Methodology

For research, it has been used a monographic method, which consists in a detailed study of conceptual approaches to identifying the essence, structure, indicators of the blue economy and its components development, including coastal tourism. The method of analogies has been also used to compare the studied indicators in terms of selected countries; economic and mathematical methods has been used, in particular, the method of cluster analysis for the formation of countries groups and characteristics of the blue economy role, including coastal tourism in terms of top countries clusters by tourism development indicators; correlation-regression analysis has been used for identify relationships between indicators of coastal tourism development.

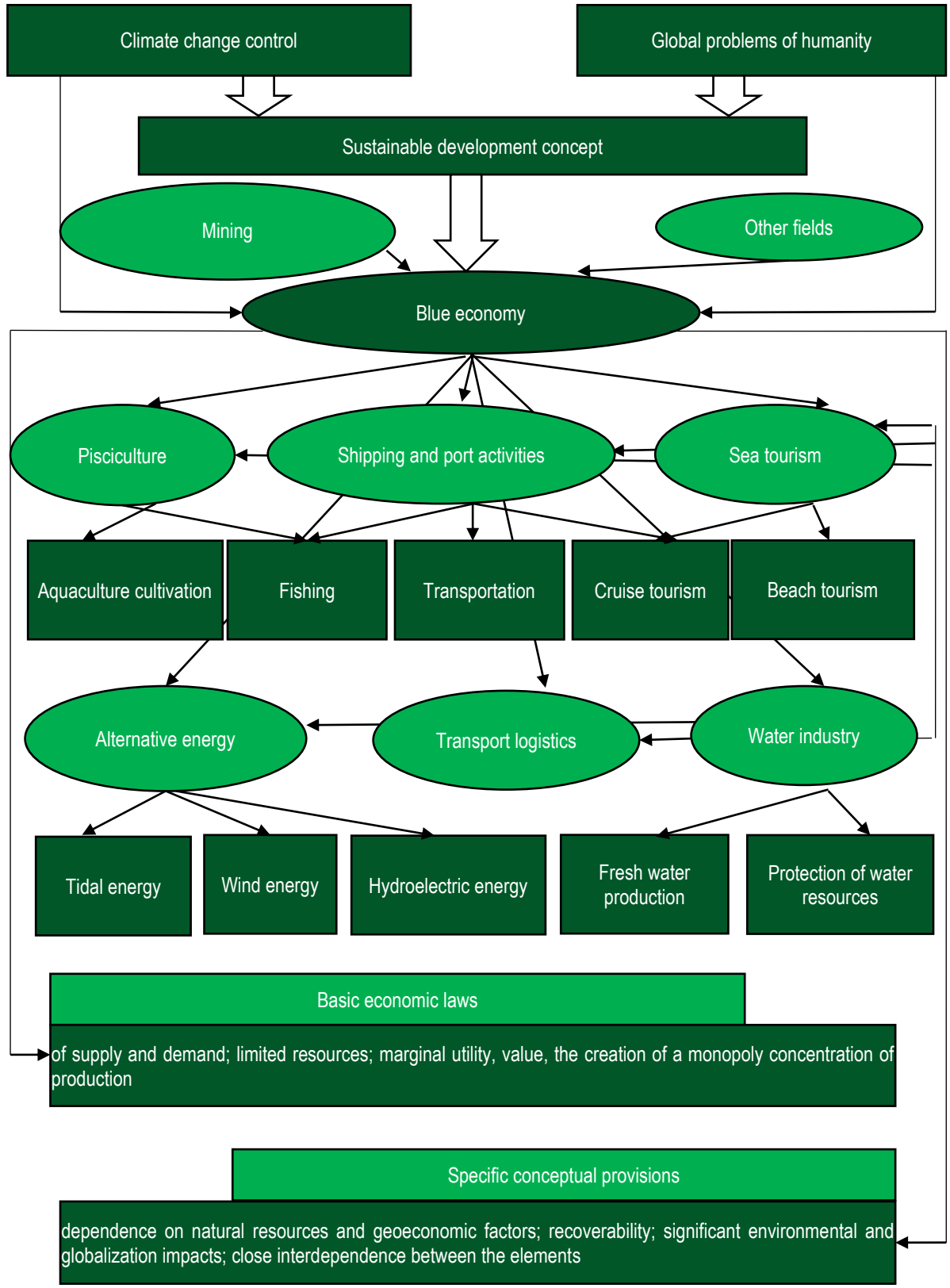
3. Application Functionality

3.1. Blue Economy Structure

3.1.1. The Concept of Understanding the Blue Economy Definition

It is expedient to consider the essence of the blue economy through the prism of several vectors. On the one hand, this is a classical economic science with a specific object of study - the world ocean and everything connected with it, on the other hand, it is a component of the concept of sustainable development, the basis of which is to ensure modern effective development without a threat to future generations based on the harmonization of relations within the economic, ecological, social subsystems. In addition, the blue economy can be considered as a generic name for several different sciences and areas of socio-economic activity that are only in contact with each other: fish farming, navigation, tourism (beach and cruise), transportation, logistics, alternative energy, ecology, and water economy that interacts with all other industries, since drinking water is used in all industries, while water resources need to be protected. It should also be noted that the blue economy is a separate vector for the study of climate change and the conservation of the biosphere (including the marine and oceanic environment) (Figure 2).

Figure 2. Conceptual model of the structure of the 'Blue Economy'



Source: systematized by authors.

Thus, Blue Economy includes traditional sectors: marine living resources; marine non-living resources; marine renewable energy; ports activities; shipbuilding and repair; maritime transport; coastal tourism; and non-traditional sectors: ocean energy; blue bioeconomy and biotechnology; desalination; marine minerals; maritime

defense, security and surveillance; research and education; infrastructure and maritime works (submarine cables, robotics, etc.).

The blue economy is subject to the action of classical economic laws. So, for example, supply and demand is formed in tourism, fish farming, energy. The law of limited resources is manifested in the fact that despite the renewability of water resources, their consumption is limited, which encourages the development of resource-saving technologies in the field of the 'blue economy'.

The law of marginal utility can be traced in the fact that despite the significant potential of water resources, it is impossible to provide comprehensive consumer needs, in addition, the utility in the 'blue economy' is distributed unevenly in the global context (maximum utility is primarily obtained by countries located on the coast of large seas and oceans). The law of value can be traced in its classical appearance, namely, that the production of products based on the use of the resources of the oceans, as well as the provision of related services and exchange, should be carried out on the basis of their value. The law of generation of monopoly by the concentration of production is manifested in the dominance of large companies in the field of navigation, fish farming, tourism, and energy.

In addition to classical economic laws, the development of the 'blue economy' is influenced by specific conceptual provisions specific to this industry. First of all, a characteristic feature of this area of research is the special dependence on natural resources and geoeconomic factors. In terms of the importance of natural resources, the 'blue economy' can be compared to agriculture. In both cases, transportation of necessary natural resources (water and soil) is not possible or very difficult. Whereas, for example, the problem of shortage of coal or iron ore is solved by imports.

The blue economy should develop in harmony with the ecological environment, while this area is making a global impact. Thus, pollution of a reservoir in one place will, to a greater or lesser extent, pollute the entire oceans; a change in the riverbed will affect the landscape of the territory, flora and fauna, hydropower, and the filling of other water bodies.

The 'blue economy' develops with close interaction between its elements, so that fish farming is associated with navigation, which in turn implies links with the tourism industry (including cruise), logistics systems, and aquaculture. In addition, the 'blue economy' is associated with other sectors of the national economy (complements them or competes). There is competition in the fisheries and livestock sectors, there has been a growing debate recently about the benefits of fish and seafood or meat, and consumers are constantly making the right choices to increase competition in the industry. The Blue Economy complements the tourism industry and in particular the hospitality industry. Also, the blue economy is an important part of the food industry and restaurant business and food trade, as fish and seafood are an important element of the menu of restaurants and the range of grocery stores.

Thus, in our opinion, the blue economy is an interdisciplinary field of science, based on the classical laws of economics and specific postulates, and unites all areas of management related to the active use of water resources (shipping, fisheries, maritime tourism (beach and cruise), transport, maritime transport, logistics, alternative energy using water capacity, etc.) and provides for economic activities based on the principles of sustainable development, including harmonization of environmental and economic relations to minimize harmful effects on the environment and eliminate negative climate change.

3.1.2. The Blue Economy Development in Europe Union

According to the recent data, the EU Blue Economy sectors employed close to 4.5 million people and generated around €650 billion in turnover and €176 billion in gross value added (Table 2).

For the established sectors, two sectors are particularly noteworthy: the living resources, with gross profits valued at €7.3 billion in 2018, saw a 43% rise on 2009 (€5.1 billion). Turnover reached €117.4 billion, 26% more than in 2009. Marine renewable energy (offshore wind) has also seen growing trends, with employment increasing by 15% in 2018 (compared to 2017). The Blue Economy emerging, and innovative sectors include marine renewable energy (*i.e.* Ocean energy, floating solar energy and offshore hydrogen generation), Blue bioeconomy and biotechnology, Marine minerals, Desalination, Maritime defence, security and surveillance, Research and Education and Infrastructure and maritime works (submarine cables, robotics). These sectors offer significant potential for economic growth, sustainability transition, as well as employment creation. Emerging Marine Renewable Energy will be key if the EU is to meet its European Green Deal, offshore the EU Hydrogen Strategy3 and the newly published 'Offshore Renewable Energy Strategy'4 goals. The latter proposes an increase in offshore wind capacity from 12 GW to 300 GW by 2050, complemented with 40 GW of ocean energy and other emerging technologies by 2050. The most notable sub-sector in Blue bioeconomy is the algae sector.

Although recent socio-economic data are available for only a limited number of Member States (France, Spain and Portugal), turnover for these amounted to €10.7 million. Desalination, there are currently 2309 operational desalination plants in the EU producing about 9.2 million cubic meters per day. As climate change may lead to hotter and dryer summers, certain countries must ensure water supply and hence have invested in desalination (European Commission, 2021)

Table 2. Europe Union Blue economy established sectors, main indicators, 2018

Indicators	Indicator values
Turnover	650 billion Euro
Gross value added	176 billion Euro
Gross profit	68 billion Euro
Employment	4.5 million Euro
Net investment in tangible goods	6.4 billion Euro
Net investment ratio	3.6 %
Average annual salsary	24,020 Euro

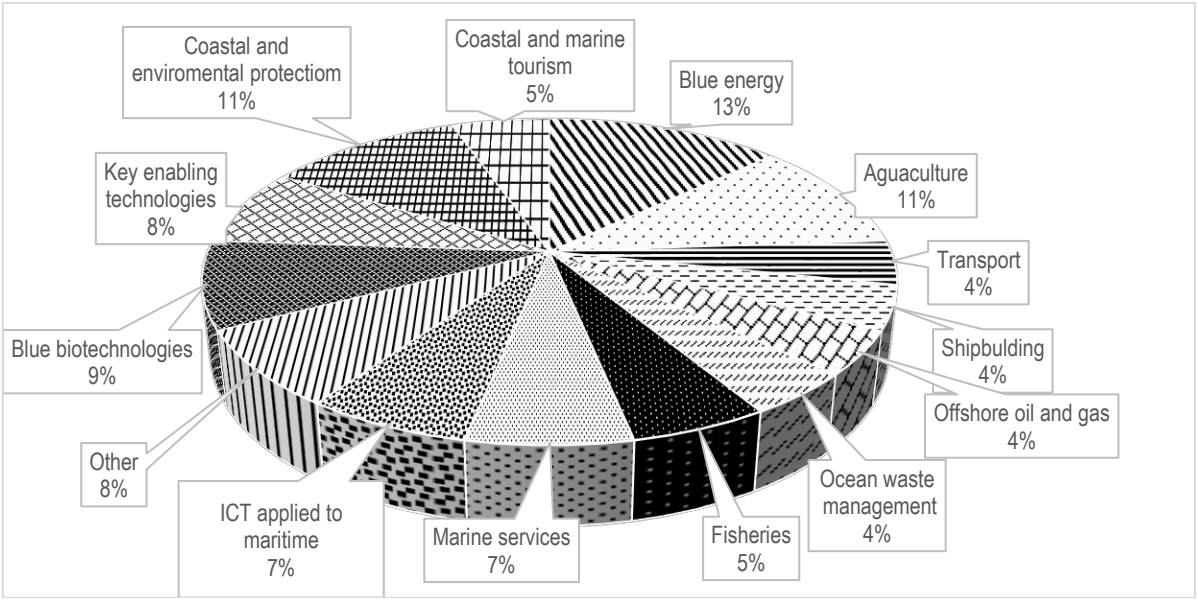
Source: Eurostat (SBS), DCF and Commission Services. European Commission (2021).
Notes: Turnover is calculated as the sum of the turnover in each sector; it may lead to double counting along the value chain. Nominal values. Direct impact only. Net investment excludes maritime transport and coastal tourism. Net investment ratio is defined as net investment to GVA.

The investment policy in the world and in particular in Europe Union plays the important role in Blu economy development. The European Investment Fund decides on the main issues related to investing in important industries in the European Union. The European Investment Fund is a specialist provider of risk finance to benefit small and medium-sized enterprises (SME) across Europe. EIF is a part of the EIB Group. Shareholders are the European Investment Bank (EIB), the European Union, represented by the European Commission, and a wide range of public and private banks and financial institutions (European Investment Fund). In 2020, the European Investment Fund (EIF) collaborated with the European Commission to launch the Blue Invest Fund initiative that will provide financing to underlying equity funds that strategically target and support the innovative Blue Economy. The Blue Invest Fund was structured under the European Fund for Strategic Investment (EFSI) Equity Product, the financial pillar of the Investment Plan for Europe, implemented by the EIF. This initiative recognizes the need for additional investment to address the challenges faced in relation to the sustainability and development of the Blue Economy and the necessary conservation of oceans, coastlines and marine life. The EIF believes that Venture Capital and Private Equity funds will play a critical role in the years to come in backing sustainable technologies and innovation that will contribute to the preservation of our oceans, seas and coastlines, precious shared resources that constitute the backbone and mainstay of the Blue Economy, a strategic high value economic sector (European Investment Fund).

EIF successfully deployed the targets reserved for the Blue Economy and ultimately surpassed the initial objective of €75 million. The investment program of Blue Economy development is directed at food security, health, and sustainability. These investments are set up to support start-ups developing innovative products, materials, and services that can contribute to enhancing marine conservation and the sustainability of the Blue Economy. The structure of investment in Blue economy is very diversified (Figure 3).

To date, Blue Invest had 545 companies verifying their eligibility for the programme, 132 companies confirmed as beneficiaries and 73 companies that have already completed the programme (55% of the participants). About 75% of the companies participating in the program are either SMEs or start-ups of under 3 years, of which a quarter are in pre-commercial phase. Most of the companies are in the Blue energy sector (12%), followed by aquaculture and coastal and environment (both at 10%), and Blue biotechnology (8%). In terms of MSs, France, the Netherlands, Ireland and Italy have the highest number of participating companies, accounting for close to 50% of the total (European Commission).

Figure 3. The structure of investment in Blue economy



Source: summarized by the author according to the data by Eurostat (SBS), DCF and Commission Services. European Commission (2021).

Gross Value-Added data show an acceleration in the growth of all sectors from 2013 onwards except for Non-living resources. The GVA generated by Coastal tourism in 2018, the largest Blue Economy sector in the EU, increased by 20.6% compared to 2009.

Table 3. Blue economy Gross Value Added

Indicators	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 to 2009, %
Living resources	14756	15242	15807	15876	15431	15872	16851	18128	18344	19100	129.4
Non-living resources	11190	11325	11935	11237	9684	8215	8422	4688	3911	4243	37.9
Ocean energy	41	115	179	205	325	437	798	1103	1432	1495	3646.3
Port activities	23126	23305	26799	23886	24175	25355	26348	27116	27349	26481	114.5
Shipbulding and repair	11263	11814	11747	10910	11060	11606	11250	12385	13515	14654	130.1
Maritime transport	26876	29966	27070	27382	29011	28695	32433	27040	31130	30047	111.8
Coastal tourism	66392	64719	58886	50924	54713	54175	56033	60353	68783	80049	120.6
Blue economy GVA	153643	156487	152424	140421	144398	144354	152135	150813	164463	176067	114.6
National GVA, billion Euro	9532.3	9848.6	10145	10205	10320.5	10555.6	10936.7	11231.2	11664.8	12046	126.4
Blue economy (% of national GVA)	1.6	1.6	1.5	1.4	1.4	1.4	1.4	1.3	1.4	1.5	93.8

Source: summarized by the author according to the data by Eurostat (SBS), DCF and Commission Services. European Commission (2021).

Maritime transport and Port activities increased by 12% and 14.5%, respectively. Other sectors that contributed to growth were Living resources (+29%) and Shipbuilding and repair (+30%). On the other hand, Non-living resources dropped by 62 % (Table 3).

Employment is recovering since 2013. With respect to 2009, overall, 2018 figures are very similar. The highest relative expansion was observed in Maritime transport. In Shipbuilding and repair as well as in Living

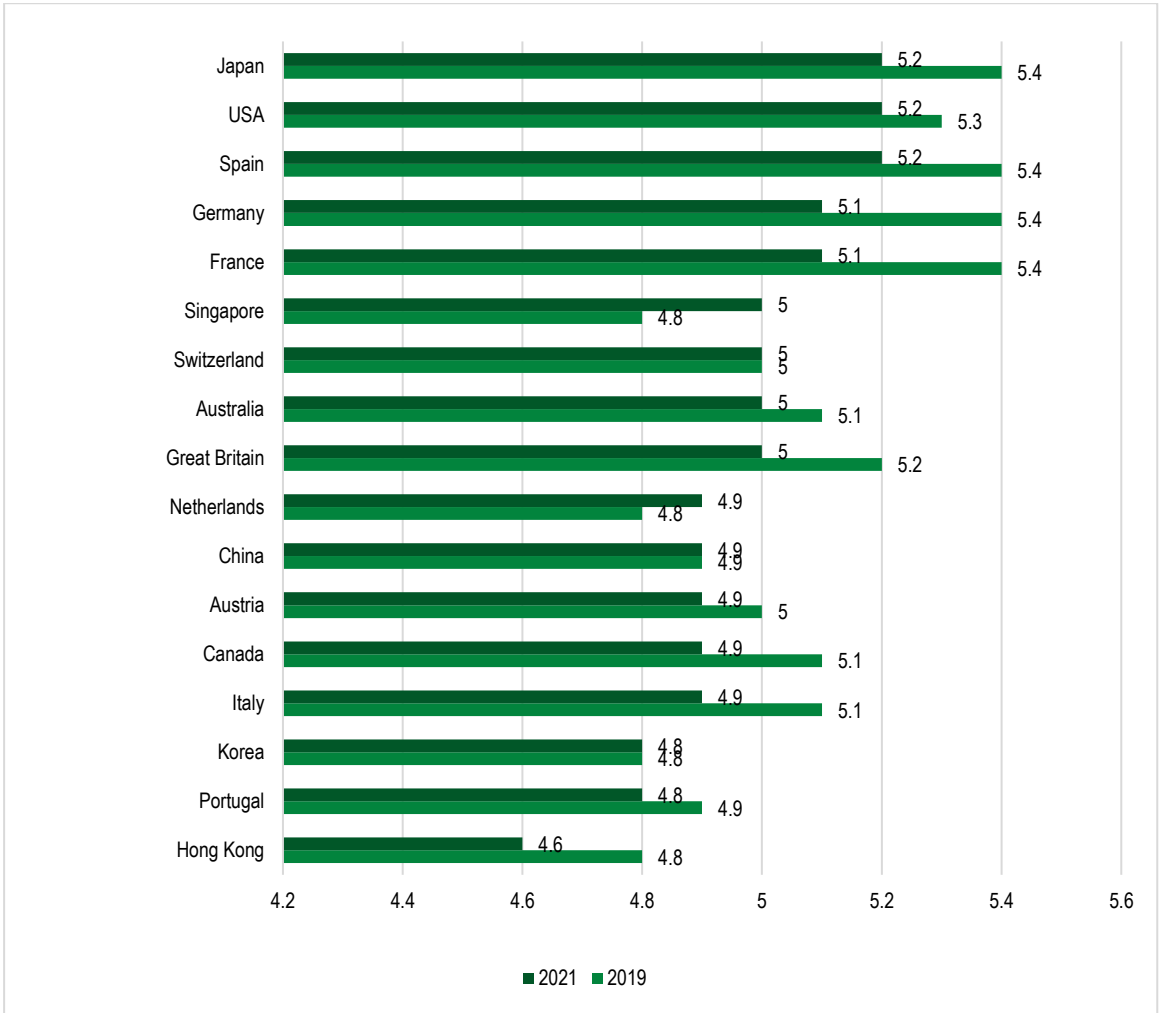
resources, employment has grown with respect to the minimum observed in 2013-2014, but it has not yet recovered to 2009 levels. In Non-living resources, a significant declining trend is seen. The sectors are also very different in their capital intensity. This is the case, for instance, for Coastal tourism compared to the Nonliving resources. Coastal tourism is labour-intensive, and often run by small or medium-sized local or family businesses; it is widespread along the entire EU coastline. This is reflected in the sector making the greatest contribution to the EU Blue Economy in terms of employment and gross value added and with its share increasing over time. However, the sector's contribution to GVA and profits are substantially lower than to employment. Within Non-living resources, the Oil and gas subsector is a highly capitalised industry that requires few employees per unit of output and is concentrated in a few geographical areas. The industry is generally comprised of large companies, which might have fewer direct links to local coastal communities. Consequently, this sector accounts for only a tiny fraction of employment (under 1% in 2018) but a substantial part of overall Blue Economy-related profits.

3.2. The Coastal Tourism Development like Important Part of the Blue Economy

3.2.1. The Worlds Trends of Tourism and Travels Development

An important place in the system of the Blue Economy is occupied by coastal tourism. If we consider coastal tourism from the point of view of globalization analysis, it is best characterized by the Travel and Tourism Competitiveness Index. This index is determined annually based on the analysis of indicators of 140 countries that characterize and ensure the development of tourism and increase the number of trips. The report on the competitiveness of travel and tourism is developed by the World Economic Forum for strategic analysis based on a comparison of indicators of countries in different regions. The maximum value of the Index is 7, such an indicator was not reached by any of the 140 countries studied (Figure 4).

Figure 4. Ranking of countries in the world according to the Travel and Tourism Competitiveness Index, 2019, 2021.



Source: compiled by the author for (The Travel and Tourism Competitiveness Report, 2019; 2021).

It is worth noting that in 2021 The Travel and Tourism Competitiveness Index in almost all countries was below potential. This is primarily due to the impact of the coronavirus pandemic. Japan tops the travel and tourism competitiveness rankings with a score of 5.2, up from 5.4 in 2019. The United States is in second place with a score of 5.2 in 2021 (5.3 in 2019). France, Germany, Spain in 2019 had the highest values of the indicator - 5.4.

In 2021, Spain's score was 5.2, while France and Germany's score was 5.1. In 2019, the United Kingdom had a value of 5.2, in 2021 this indicator decreased to 5. The position of Singapore increased from 4.8 to 5. In 2021, such countries as Switzerland and Australia had a value of 5. High rates - 4.9, have such countries as the Netherlands, China, Austria, Italy, Canada; Korea, Portugal, Hong Kong have a value of 4.8. Ukraine occupied the 78th position in this rating in 2019 with a value of 3.7, that is, it is in the second part of the rating; in 2021, this indicator was not determined for this country and a number of other countries.

Chad and Yemen rank lowest with 2.5 and 2.6 respectively in 2021, as well as most countries in the sub-Saharan Africa region. In general, the highest value of the Tourism and Travel Competitiveness Index (more than 4.4) in 2019 was achieved by European countries - 20, or 57% of the entire set of TOP-35 countries, and in 2021 this indicator (more than 4.4) was only had 32 countries, of which 21 countries (or 65.6%) are European countries.

In second place in 2019 was the Asia-Pacific region - 10 countries, or 29%, the third - North and South America - 4 countries, 11%, only the United Arab Emirates from the Middle East and North Africa in the TOP-35. European countries were among the first to develop tourism, hotel and restaurant business and related infrastructure. However, at the same time, the historical heritage of European countries is of great importance, since it is the architecture and monuments of culture and art that most attract travelers. Thanks to this, the European region is the most competitive in terms of tourism and travel.

If we consider individual components (sub-indices) in 2019, then other countries are leaders. So, for example, in terms of the favorable environment for the development of the tourism sector, Switzerland is in first place, and Finland and Hong Kong are in second and third, respectively, with an indicator of 6.1. According to the favorable environment, European countries - Germany, Luxembourg, Iceland - have high marks (6). If we consider a sample of countries with an indicator of more than 5.3 (these are 50 countries), then among them 31 countries (62%), also high positions are occupied by the countries of Asia and the Pacific - Singapore (5.9, position 7), Japan (5 .9, position 10), New Zealand (5.8, position 14), Korea and Australia (5.7, corresponding positions 19, 20). The assessment of the environment in the USA is 5.8 (16th position), Canada - 5.6 (21st position).

Ukraine ranks 65th with an indicator of 5, which is higher than, for example, in such tourist countries as Indonesia (4.8), Turkey (4.6), Egypt, Mexico (4.5). The last places in the ranking for this indicator are occupied by African countries. On the sub-index characterizing the policy and the level of favorable conditions for travel and tourism, New Zealand occupies the first place with a value of 5.1. Unlike the previous sub-index, which characterizes the favorable environment, the leadership in terms of the favorable policy and conditions for tourism and travel is held by Asian countries - Singapore, Indonesia (indicator 5, 2 and 4 positions). In third place is Luxembourg.

Costa Rica and Panama are highly rated (4.9), both in the South American region. Ukraine ranks 70th with a score of 4.5. Relatively low scores are Italy and Great Britain (4.4), respectively 75 and 77 positions. Quite low are Ukraine's estimates for the sub-index characterizing the development of infrastructure - 3.4. That provided the 73rd line in the corresponding rating.

The best tourist infrastructure is developed in the USA and Switzerland according to the 2019 index (score of 5.8), as well as in Singapore (5.7), Great Britain and Spain (5.6). This indicator characterizes air traffic, the quality of roads, the development of the transport network, maritime transport. For most African countries, this figure is less than 2, which significantly reduces the overall competitiveness index of countries in terms of development of tourism and travel. The lowest score of Ukraine (2.1) was determined by the sub-index characterizing natural and cultural resources, which provided only 89th place in the ranking.

The most attractive in terms of resources and cultural values in terms of tourism are China with an indicator of 6.1, France (5.9), Italy, Spain (5.7), Brazil and Mexico (5.6). In the regional context, according to this indicator, the countries were placed in the ranking proportionally, which emphasizes the fact that in every region of the world there are interesting sights that attract tourists.

The Travel and Tourism Competitiveness Index is a comprehensive indicator that comprehensively characterizes the level of development of the tourism sector. Together with these indicators, it is advisable to

analyze such indicators as international tourist arrivals, thousands, TandT industry GDP, Employment in tourism and travel sphere (Table 4).

Table 4. Indicators of tourism development in the leading countries of the world

Countries	Travel and Tourism Development Index	International tourist arrivals, thousands	International tourism inbound receipts (inbound US $, millions)	TandT industry GDP, US $ million	TandT industry share of GDP, % of total GDP	TandT industry share of Employment, 1000 jobs	TandT industry share of Employment, % of total employment	Domestic TandT spending, % of internal TandT spending
Japan	5.2	4116	10700.3	76067.8	1.5	1744	2.6	94.6
United States	5.2	19445	7617	356153	1.7	4037	2.7	93.9
Spain	5.2	18958	18477.4	28183.8	2.2	830	4.3	63.2
France	5.1	89400	32564.1	52230.9	2	1177	4.2	67.1
Germany	5.1	12449	22080.2	722999.4	1.9	2874	6.4	88.4
Switzerland	5	11818	9064.8	12554.2	1.7	161	3.2	72.3
Australia	5	1828	25820.9	20896	1.5	516	4.1	91
United Kingdom	5	39418	18933.3	35732.1	1.3	1600	4.6	85.4
Singapore	5	15119	5189.1	5171.5	1.5	181	5	50
Italy	4.9	25190	19796.6	56553.9	3	1519	6.6	80.6
Austria	4.9	15091	14018.2	15702.5	3.7	272	6.1	45
China	4.9	65700	14233.3	157865	1.1	22799	3	88
Canada	4.9	2960	11258.2	15336.8	0.9	600	3.3	81.2
Netherlands	4.9	7265	9101.1	21974.6	2.4	729	9.3	78.5
Korea	4.8	2519	10527.7	10768.8	0.7	310	1.2	67.9
Portugal	4.8	6480	8855.5	7438.9	3.2	379	8	41.4
Denmark	4.7	14573	3964.9	5829.9	1.7	64	2.3	69.6
Finland	4.7	896	1264.4	3491.5	1.3	56	2.1	84.8
Hong Kong SAR	4.6	1359	2842	2792.1	0.8	149	4.1	74.5
Sweden	4.6	7616	4373.8	8287.9	1.5	111	2.2	74.4
Luxemburg	4.6	525	4780.7	2390.2	3.4	16	5.6	15.6
Belgium	4.6	2584	6588.2	6136.5	1.2	118	2.4	62
Iceland	4.5	486	638.6	650.4	3.2	12	6.2	44.3
Ireland	4.5	10951	1900.6	1641.6	0.4	54	2.4	24.3
United Arab Emirates	4.5	7165	30730.6	8711.2	2.4	263	4.3	32.8
Czech Republic	4.5	14651	3627.9	4081.7	1.7	206	4	55.9
New Zealand	4.5	3702	6291.6	6148.6	2.9	169	6.2	70.2
Greece	4.5	7217	4932.9	5892.2	3	244	6.4	54.4
Estonia	4.4	1023	588.3	678.1	2.2	20	3	44
Poland	4.4	8418	7770	5034.8	0.8	306	1.9	26.9
Cyprus	4.4	632	658.3	270.9	1.1	15	3.8	19.4

Source: compiled by the author for (The Travel and Tourism Competitiveness Report, 2021; UNWTO; World Bank, 2021).

In terms of international tourist arrivals, the leaders are such countries as France - 89400 thousand, China - 65700 thousand, the third place is occupied by the United Kingdom - 39418 thousand, this figure is significantly lower than in the two previous countries. One of the main factors behind the high rate of international tourist arrivals is interesting tourist sites, historical monuments of culture and architecture, as well as natural resources.

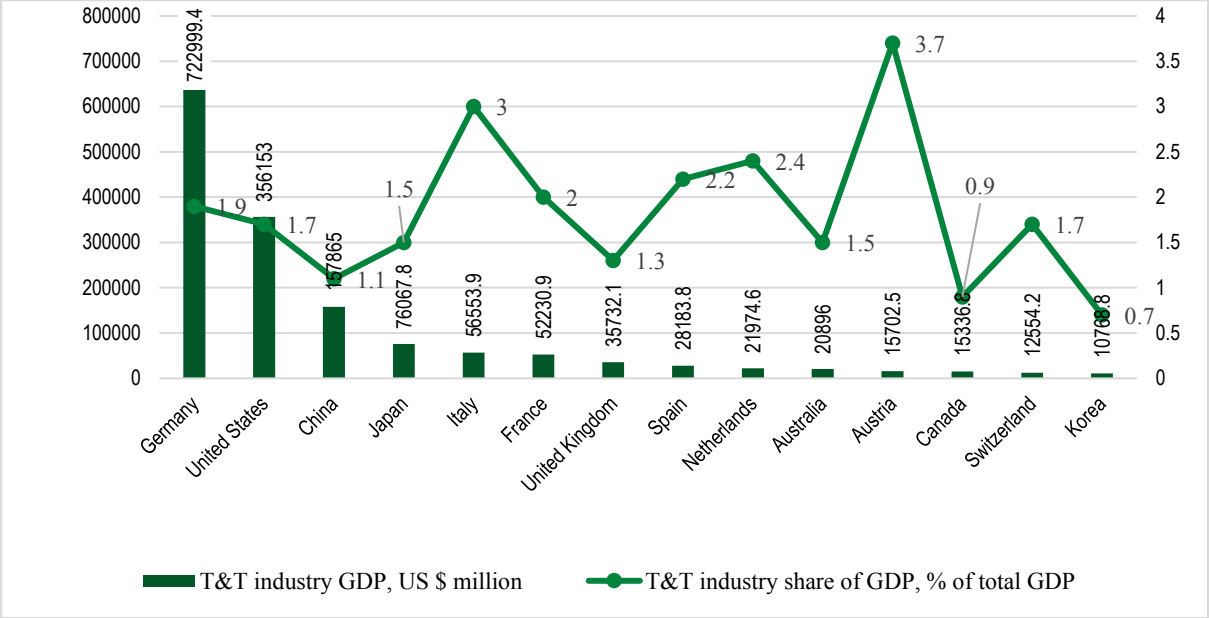
In addition, the visa regime for citizens of other countries is important, as well as the average prices for accommodation, meals, transportation costs, etc. Also, the leading countries in this indicator with a value of more than 10 million visitors include Italy, the USA, Spain, Singapore, Austria, the Czech Republic, Denmark, Germany, Switzerland, and Ireland. These countries are different in size and located on different continents, however, all these countries have a high level of socio-economic development and a balanced industrial structure.

It should be noted from the point of view of the Blue Economy that all countries in this top rating have access to the sea, which is an important factor in increasing tourist attractiveness, and also contributes to an increase in passenger transportation by sea. The number of tourists arriving in Japan (leading The Travel and Tourism Competitiveness Index) is 4116 thousand people, this is the 20th position in the ranking for this indicator.

If we consider the first 31 countries with the highest Travel and Tourism Competitiveness Index, then among them the lowest value of international tourist arrivals is Iceland (486 thousand people), Luxembourg (525 thousand people), Cyprus (632 thousand people), Finland (896 thousand people).

Assessing the indicator of international tourism inbound receipts (inbound US$, millions), it should be noted that the leader in this indicator is the United States - 76127 million dollars. The United States, with a significant margin in second and third place, are respectively France (32564.1 million dollars) and the United Arab Emirates (30730.6 million dollars). Also, in the TOP-10 according to this indicator are such countries as Australia, Germany, Italy, Great Britain, Spain – International tourism inbound receipts of more than 18 billion US dollars. The lowest of the top countries, this figure is in Cyprus, Iceland, Estonia – less than 658.3 million dollars. USA. Other rating values can be traced to such an indicator as TandT industry GDP. Thus, the leader in this indicator is Germany – 722,999.4 US$ million. This is almost twice as much as the second-ranked US ($356,153 million). In third place is China with a value of 157,865 million dollars. United States, which is 2.3 times less than in the United States. In fourth place is Japan ($76,067.8 million), half that of China (Figure 5).

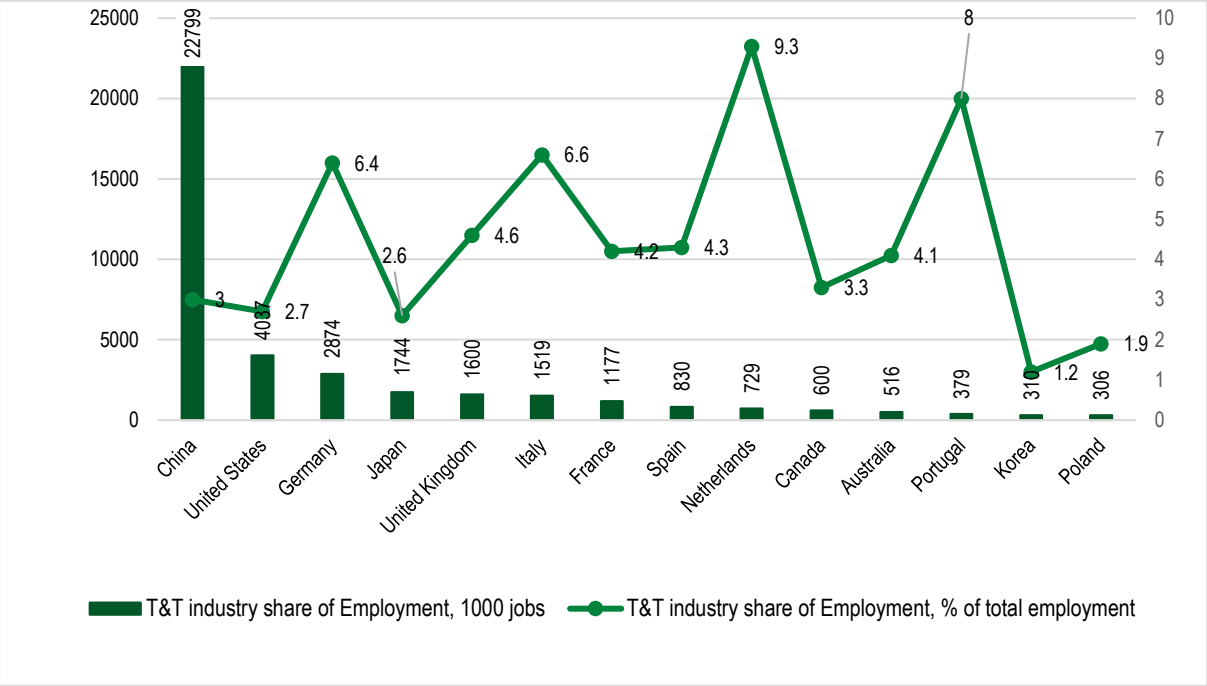
Figure 5. TandT industry GDP, US $ million and share of GDP, % of total GDP



Source: compiled by the author for (UNWTO; World Bank, 2021).

If we analyze the frequent tourism in the total gross domestic product, then it is insignificant. In particular, for Germany this indicator is 1.9%, for the USA - 1.7%, China - 1.1%, Japan - 1.5%. Among the top countries in tourism development, the highest share of tourism GDP is in Austria - 3.7% and Iceland - 3.2%. In Greece and Italy, this figure is 3%, Portugal - 2.9%. The lowest percentage among the studied countries in Ireland - 0.4% and South Korea - 0.7%.

Figure 6. TandT industry share of Employment, 1000 jobs and % of total employment



Source: compiled by the author for (UNWTO; World Bank, 2021).

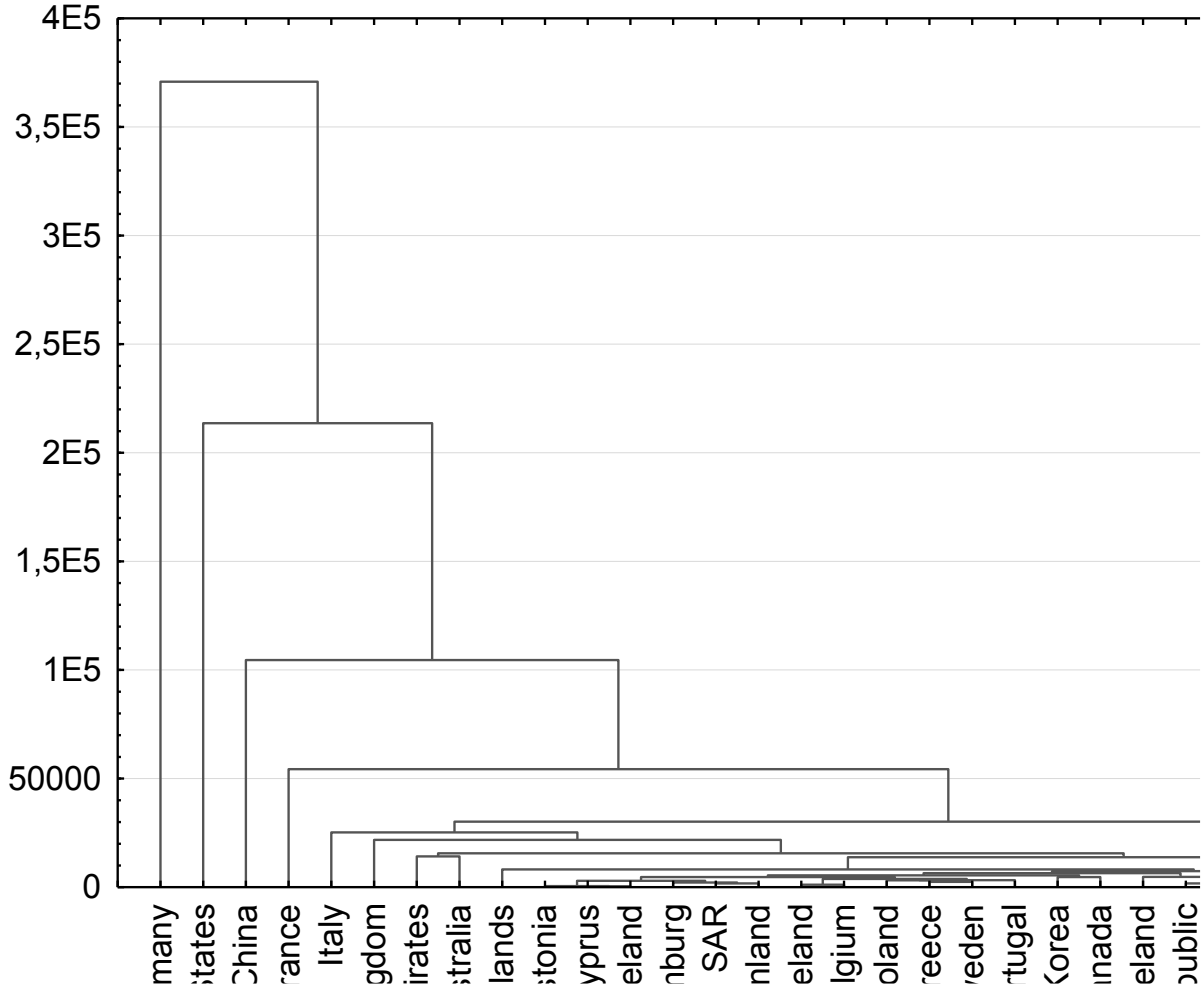
After analyzing employment in the field of tourism and travel (Figure 6), it should be noted that the highest figure for China is 22,799 thousand people, which is only 3% of the total number of employees, in the United States 4,037 thousand people are employed in this area (2.7%), in Germany – 2874 thousand people (6.4%), in Japan - 1744 thousand people (2.6%). Most of the workers employed in the tourism sector in the total number of employees in the Netherlands – 9.3% and Portugal – 8%.

Analyzing the indicator Domestic TandT spending (% of internal TandT spending), it should be noted that it is the highest for such countries as Japan, the USA, Australia – more than 90%, for Germany, China, Great Britain, Finland this indicator is more than 80%. The lowest Domestic TandT spending in such countries as Luxembourg (15.6%), Cyprus (19.4%), Ireland (24.3%), Poland (26.9%).

3.2.2. Cluster Analysis and Strategies of Leader Countries by Indicators of Coastal Tourism Development

Based on the combination of these indicators, it is advisable to conduct a cluster analysis in order to form groups of countries according to the similarity of characteristics (Figure 7).

Figure 7. Vertical hierarchical dendrogram of clustering by indicators of tourism development



Source: compiled by the authors.

To identify clusters using the cluster analysis technique, it is necessary to analyze the Euclidean distance. The calculation was made using the STATISTICA program. As a result of the analysis, it was revealed that most of the countries studied are quite similar in terms of tourism development, however, four countries are singled out separately, which it is not advisable to combine with others, therefore they form a separate cluster (Table 5).

Thus, given the results of cluster analysis, it can be concluded that the blue economy, in particular coastal tourism, plays a leading role in developing the country's potential. High rates of tourism development in those landlocked countries are due to another uniqueness that can attract tourists from around the world.

Table 5. Description of the role of the blue economy, in particular, coastal tourism in the context of clusters of top countries in terms of the level of tourism development

Clasters	Characteristic	The importance of the blue economy, in particular coastal tourism
Germany	The highest values of Travel and Tourism Development Index and TandT industry GDP, Domestic TandT spending, % of internal TandT spending. Significant number of historical and cultural monuments, developed infrastructure, including transport	Germany has access to the North and Baltic Seas. The most popular seaside resorts are Sult, Rügen, Hiddensee, Just, Borkum, St. Peter-Ording, Usedom, Amrum, Timmendorfer Strand and Prerow. Maritime tourism plays a secondary role in the development of tourism in Germany, mainly domestic tourism.
USA	The highest values of the Travel and Tourism Development Index, other indicators are above average. Attractive natural locations, cultural environment, modern architecture, shopping malls	The territory of the United States is bordered by the Pacific Ocean, the Gulf of Mexico. The beaches of California, and especially Miami, are considered some of the best in the world. Coastal tourism plays an important role.

Clasters	Characteristic	The importance of the blue economy, in particular coastal tourism
China	The highest rate of TandT industry share of Employment numbers jobs. The importance of tourism development among the top countries. Rich history and cultural heritage, natural locations. Domestic tourism predominates. Remote location for European countries reduces tourism potential.	The country is bordered by the Bohai Sea, the Yellow Sea, the East Sea and the South China Sea. The best beaches are located on the island of Hainan, Liaoning, Guangxi, Shandong. Mostly sea holidays are designed for domestic tourism, with the exception of Fr. Hainan, which has been actively developing in recent years.
France	The highest rate is International tourist arrivals. It has all kinds of tourist attractions - cultural, architectural, artistic, natural, etc.	Coastal tourism plays an important role. The main beach resorts in France: the Mediterranean coast: the Cote d'Azur (Nice, Cannes, Antibes, Juan-les-Pins, Saint-Tropez); Atlantic coast: Aquitaine region (Biarritz), Brittany region (Saint-Malo, Dinard, Cyberon, La Biel), Normandy region (Deauville, Trouville-sur-Mer, Honfleur); island of Corsica.
United Arab Emirates, Australia	Average indicators of tourism development among top countries. The most attractive are the natural locations and exotic countries	Coastal tourism is crucial in the development of tourism.
Japan, Spain, United Kingdom, Italy	The highest indicators of tourism development. All countries have a long history, developed economy, cultural, architectural heritage and natural locations	Coastal tourism plays an important role primarily for Italy and Spain, as well as for Japan (for which it is mainly domestic tourism). For the UK, coastal tourism is of secondary importance.
Singapore, Switzerland, Austria, Czech Republic	High level of socio-economic development and tourism, natural locations, cultural heritage, high level of service	Switzerland, Austria, Czech Republic have no access to the sea, Singapore has access to the sea, the main beaches are located on the island of Sentosa, but beach holidays in this country are not particularly attractive.
Portugal, New Zealand, Denmark, Sweden, Ireland, Greece, Poland	Average indicators of tourism development among top countries. Each country has its own uniqueness and how it differs from others	All countries have access to the sea, most of the coastal tourism depends on Portugal and Greece, New Zealand. Coastal tourism in Poland, Denmark and Ireland is widespread primarily among domestic tourists
Netherlands, Canada, Republic of Korea	Average indicators of tourism development among top countries, attractive due to multiculturalism, high level of globalization and level of socio-economic development	Coastal tourism plays a secondary role, in the Netherlands, Canada due to the climate, in the Republic of Korea is primarily aimed at domestic tourists

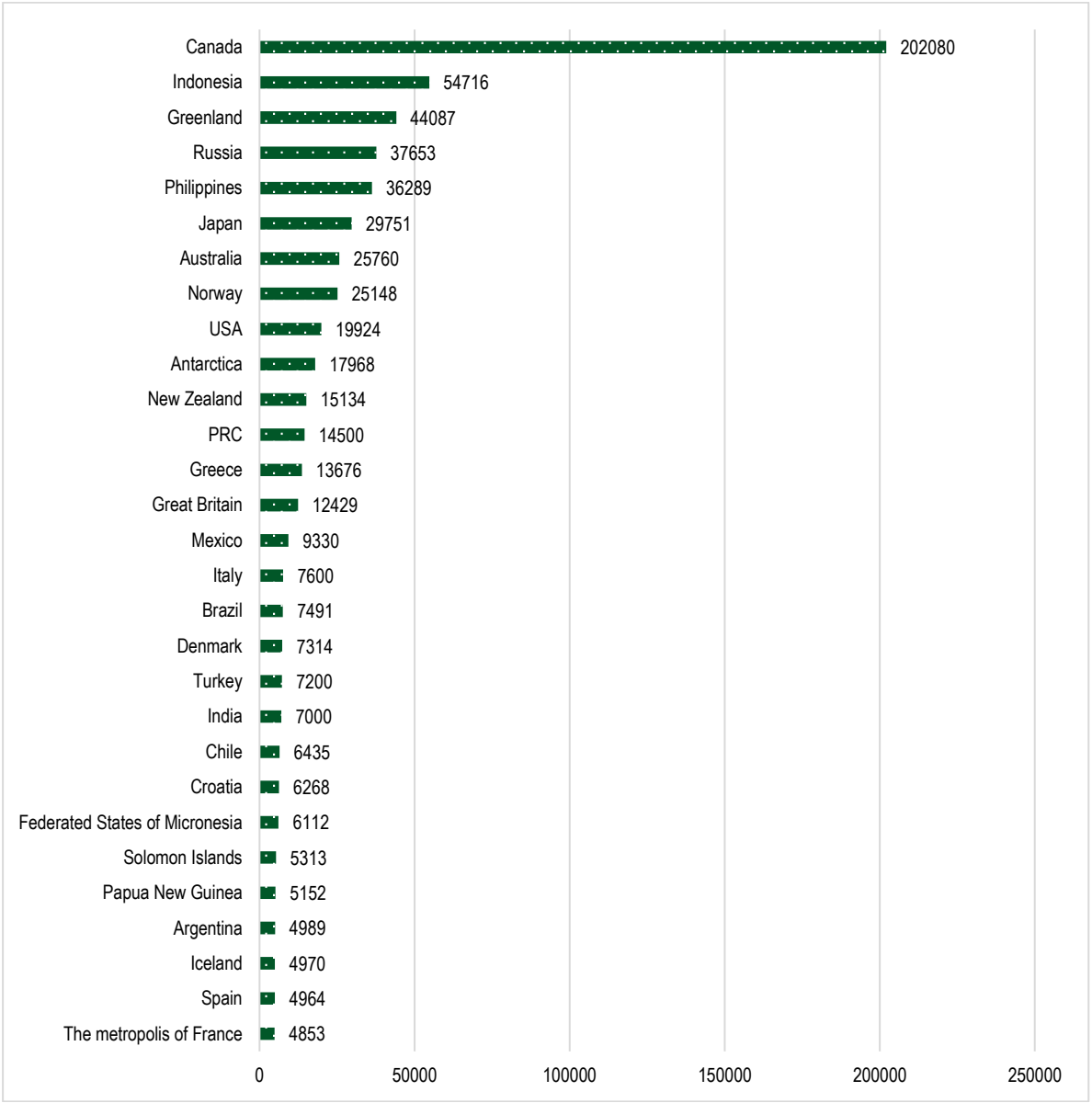
Source: generalized by the authors on the basis of cluster analysis.

2.2.3. The Main Indicators of Tourism Development per 1 Km of Coastline and Their Correlation

The coastline of all countries is 1162.3 million km according to The World Factbook. The longest coastline belongs to Canada – 202080 km, thanks to which the country has developed shipping, fisheries, mining, alternative energy, but due to geographical location and climate, coastal tourism in Canada is not very popular. In second place along the length of the coastline is Indonesia – 54,716 km. Indonesia is an island nation, with the largest islands being New Guinea, Kalimantan, Sumatra, Sulawesi and Java. The country also has a large number of rocks and coral islands. Indonesia is located between the Pacific Ocean in the northeast and the Indian Ocean in the west.

The country's borders are mostly maritime, the length of the land border is only 2830 km (Figure 8).

Figure 8. Ranking of countries in the world by the length of the coastline, km



Source: generalized by the authors according to The World Factbook.

In third place along the coastline is Greenland – 44087 km. It is the largest island on the planet, an autonomous constituent country within the Kingdom of Denmark. This country is located between the Arctic and Atlantic Oceans, east of the Canadian Arctic Archipelago. Beach tourism is not developing there due to the peculiarities of the climate, as about 80% of the country's area is covered by the second largest on the planet and the only permanent ice sheet outside Antarctica.

Among European countries, the longest coastline in Greece is 13,676 km. Greek resorts are popular all over the world, coastal tourism is developing both on the mainland and on numerous islands. One of the most popular beaches is Zakynthos, Ionian, located on the island of Zakynthos, which can only be reached by boat. Also among the top beaches in Greece are Voidokilia, which is located in Messinia, is one of the most impressive beaches in Greece, the bay is covered with silky sand and has an unusually symmetrical shape; Koukounaries is the most famous beach on the island of Skiathos, with pine plantations and a silky 1,200-meter white beach; Myrtos is located on the island of Kefalonia, the most photographed of all the beaches of Greece; Kokkini (Red) - one of the most famous and beautiful beaches of Santorini, surrounded by red rocks; Elafonisi is a small island connected to the rest of Crete by a shallow reef that can be crossed when the sea is calm; Seychelles - is one of the most beautiful beaches in Ikaria, the beach is covered with marble pebbles, emerald water and large rocks; also popular beaches in Greece include Plaka, Prasonisi, Balos, Porto Katsiki, Vai.

The presence of a developed coastline in combination with favorable weather conditions is the main prerequisite for the effective development of coastal tourism. It is advisable to consider such relative indicators per 1 kilometer of coastline as International tourist arrivals, International tourism inbound receipts, Tourism and Travel industry GDP (Table 6).

Table 6. The main indicators of tourism development per 1 km of coastline, 2021

Countries	Travel and Tourism Development Index (Y)	International tourist arrivals, thousands (X_1)	International tourism inbound receipts (inbound US $, millions) ($X_2$)	TandT industry GDP, US $ million (X_3)
Spain	5.2	3.8	3.72	5.68
United States	5.2	1.0	3.82	17.88
Japan	5.2	0.1	0.36	2.56
France	5.1	18.4	6.71	10.76
United Kingdom	5	3.2	1.52	2.87
Australia	5	0.1	1.00	0.81
Italy	4.9	3.3	2.60	7.44
Canada	4.9	0.0	0.06	0.08
China	4.9	4.5	0.98	10.89
Portugal	4.8	3.6	4.94	4.15
Korea	4.8	1.0	4.36	4.46
Ireland	4.5	7.6	1.31	1.13
United Arab Emirates	4.5	5.4	23.32	6.61
Iceland	4.5	0.1	0.13	0.13
Greece	4.5	0.5	0.36	0.43
New Zealand	4.5	0.2	0.42	0.41
Cyprus	4.4	1.0	1.02	0.42

Source: compiled by the authors for (The Travel and Tourism Competitiveness Report, 2021; UNWTO; World Bank, 2021).

For the analysis, those countries were taken that have a large coastline and a favorable climate for a beach holiday, while the Travel and Tourism Development Index values are quite high. France has the highest value of International tourist arrivals per 1 km of the coastline – 18.4 thousand people, in second place is Ireland - 7.6 thousand people, in third place - the United Arab Emirates – 5.4 thousand people. Among European countries, after France, Spain occupies the second place – 3.8 thousand people, the third – Portugal (3.6 thousand people).

As for Greece, which has the longest coastline in Europe, there are 0.5 thousand people per 1 kilometer. International tourism inbound receipts is the largest in the UAE – 23.32 million dollars. US and France – 6.71 million dollars. USA. Among European countries, this figure is also high in Portugal ($ 4.94 million) and Spain ($ 3.72 million). Tourism and Travel industry GDP per 1 km of coastline is the highest in the United States – 17.88 million dollars. USA, China – 10.89 million dollars. USA, France – 10.76 million dollars. USA. When calculating these indicators, it is necessary to take into account the fact that not all tourists are interested in the coastline and beach holidays, but in most cases, even those tourists who are indifferent to the beaches, visit them as a bonus to the main destination.

Multiple regression was used to determine the relationship between the Travel and Tourism Development Index and factor indicators per 1 kilometer of coastline, such as International tourist arrivals, International tourism inbound receipts, Tourism and Travel industry GDP. The analysis revealed that there is a moderate relationship

between performance and factor traits, as evidenced by a correlation coefficient of R = 0.621. Regarding paired correlation coefficients, the influence of each of the factors is different:

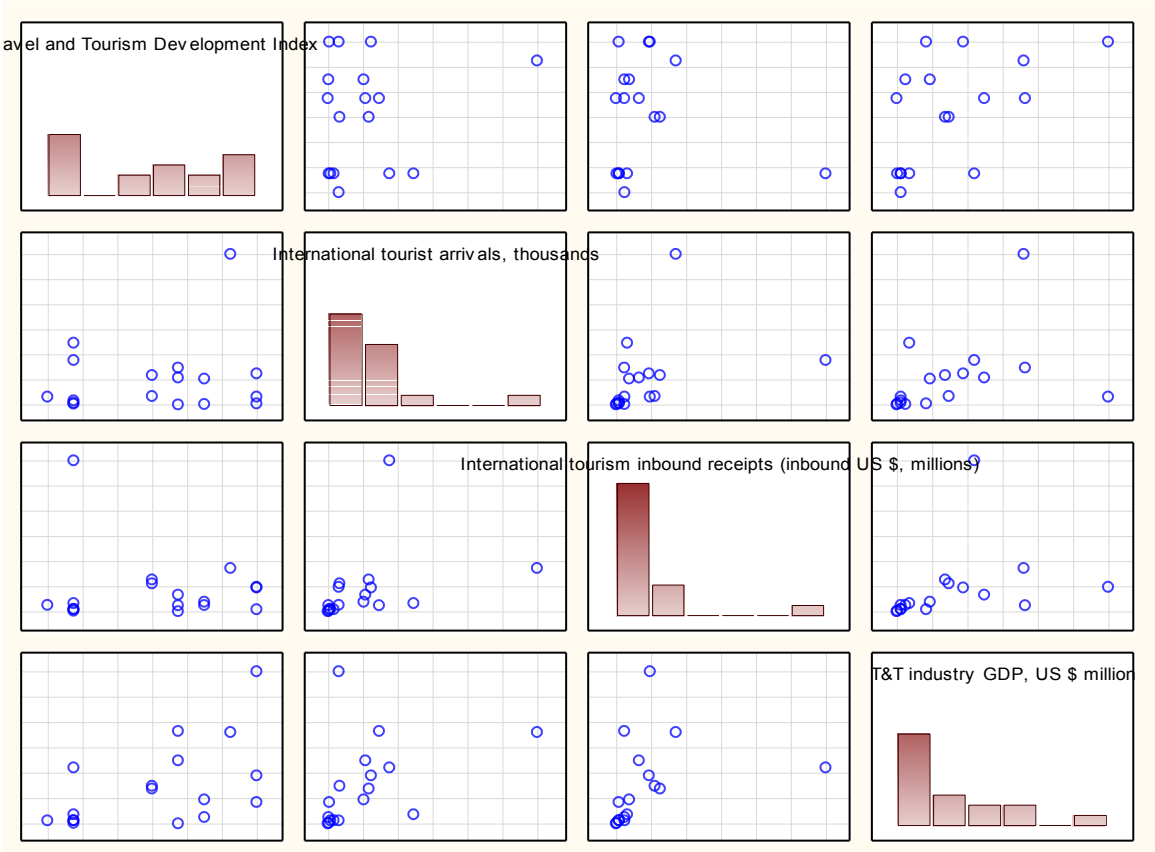
Rx_1 = 0,167;
Rx_2 = -0,12;
Rx_3 = 0,539.

Thus, the closest link is between the Travel and Tourism Development Index and the third factor, the TandT industry GDP per 1 kilometer coastline. With the first factor - International tourist arrivals per 1 kilometer coastline, the connection is weak. With the second factor of International tourism inbound receipts per 1 kilometer coastline, the connection is weak and inverse, as indicated by the minus sign. It is worth noting that high prices for holidays reduce the competitiveness of resorts, and therefore negatively reflected in the Travel and Tourism Development Index. Figure 9 shows the paired relationships between the studied traits.

As a result of the analysis, a regression equation was constructed, which can be used to predict the value of the Travel and Tourism Development Index on the basis of data on the factor features that determine the result. The regression equation has the form:

$$Y = 4{,}705 + 0{,}0341X_1 - 0{,}333X_2 + 0{,}631X_3 \quad (2.1)$$

Figure 9. Matrix interpretation of pairwise dependences between the studied features of the effectiveness of coastal tourism development in the leading countries of the world.



Source: builit by the authors.

2.2.4. The Spain Coastal Tourism Potential

Considering coastal tourism in European countries, it should be noted that Italy is the EU country with the most accommodation capacity in coastal areas with 916,000 rooms, followed by Spain (67,000), Greece (585,000), France (495,000) and Croatia (345,000). From the coastal countries, the ones with the least sum are Estonia (13200 thousand), Lithuania (9900 thousand), Finland (9400 thousand), Slovenia (9100 thousand) and finally Latvia with 8500 thousand rooms. Cyprus presents the highest average number of coastal rooms per NUTS3 (76000 coastal rooms per NUTS3). the entireisland being considered one unique region. Together with Bulgaria (almost 53000), Croatia (49000) and Romania (46000) are the countries with the highest averages. The lower averages are found in Estonia (4100), Netherlands (4000) and Finland (1500 coastal rooms per NUTS3).

Spain's coastal tourism industry deserves special attention. This country ranks first along with Japan and the United States in the Travel and Tourism Development Index, along the length of the coastline, Spain ranks fourth in Europe after Greece, Italy, France. In Spain, there are 17 coastal areas: Costa Brava; Costa del Maresme; Costa del Garraf; Costa Dorada; Costa del Assar; Costa de Valencia; Costa Blanca; Costa Calida; Costa de Almeria; Costa Tropical; Costa del Sol; Costa de la Luz; Costa Basque; Costa Cantabria; Costa Birdie; Rias Altas; Rias-Bahas (Figure 10).

Figure 10. The structure of the Spanish coastline

Source: Eurostat (SBS), DCF and Commission Services. European Commission (2021).

In total, there are more than 2,000 beaches in Spain. Each coastal area of Spain has its own uniqueness. In addition to beautiful beaches and nature, the regions of Spain combine history, centuries-old traditions, culture, architecture and art.

3. Discussion

Thus, in our study, we confirmed the hypothesis that the blue economy is a prospective research area. The blue economy has untapped potential that emphasizes the need for in-depth research in this area. We support the view that the blue economy is an important element of the sustainable development concept. However, we believe that its development goes far beyond this concept. It is expedient to consider the Blue Economy from the point of view of the classical economy, as well as a separate scientific field, covering shipping, fisheries, maritime tourism (beach and cruise), transport, sea transportation, logistics, alternative energy using water power. Considering the point of view of scholars on the important role of public administration in the blue economy, we agree with this thesis and consider that one of the main areas of government regulation is investment support for this area development. At the same time, it is important to grant funding for priority development areas in the sectoral context, as well as research projects.

Scholars' views on the important role of coastal tourism as a component of the blue economy have been developed. Methodological approaches to assessing the tourism sector, its potential and the sea or ocean coast role for this industry have been further developed. Methods of cluster and correlation-regression analysis were used to form strategies for the development of coastal tourism for each countries group. The important role of Spain in the development of coastal tourism and its potential have been identified.

Conclusions and Implications

The blue economy is an important area of modern research aimed at studying the resources and potential of the seas and oceans in the livelihood and development of socio-economic systems. The blue economy development is based on classical economic laws, as well as on specific laws that are characteristic only of the blue economy research field. The blue economy unites all areas of management related to the active use of water resources, including shipping, fisheries, maritime tourism (beach and cruise), transport, maritime transport, logistics, alternative energy using water capacity, etc.

The blue economy development is closely linked to the sustainable development concept, the relevance of which is growing every year due to increasing anthropogenic pressure. The main prerogative for the development of this area is the harmonization of relations between the economy, society and nature. That is, the use of resources from the world's oceans must be economical and efficient without endangering future generations.

An important place in the development of the Blue Economy is occupied by coastal tourism. To determine its role in the tourism industry, The Travel and Tourism Competitiveness Index was analyzed. The first place in the ranking of the level of The Travel and Tourism Competitiveness Index is occupied by Japan with the indicator, in second place is the United States, followed by France, Germany, Spain, and in 2019 these countries had the highest values.

Based on the analysis of indicators: Travel and Tourism Development Index, International tourist arrivals, International tourism inbound receipts, tourism and travel industry GDP, tourism and travel industry share of GDP, tourism and travel industry share of Employment, Domestic tourism and travel spending, built a cluster model, as well as the strategic vectors of development of leading countries in the field of coastal tourism.

The main indicators of tourism development per 1 km of coastline have been analyzed. Multiple regression was used to determine the relationship between the Travel and Tourism Development Index and factor indicators per 1 kilometer of coastline, such as International tourist arrivals, International tourism inbound receipts, Tourism and Travel industry GDP.

Analyzing the potential of the coastline globally, it was found that the longest coastline belongs to Canada - 202080 km, the country has developed shipping, fisheries, mining, alternative energy, but coastal tourism in Canada is not popular due to climate. In second place along the length of the coastline is Indonesia - 54,716 km. This country is one of the most attractive in the world for coastal holidays.

Spain has significant potential for the development of coastal tourism. It has 17 coastal areas and more than 2,000 beaches. For the effective development of coastal tourism in Spain, first of all it is necessary to pay attention to the development of tourist infrastructure, take into account environmental trends in tourism and consumption, expand the target audience, develop an effective marketing strategy at the level of individual tourism businesses and the coastal region. countries as a whole.

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Credit Authorship Contribution Statement

The authors contributed equally to this work.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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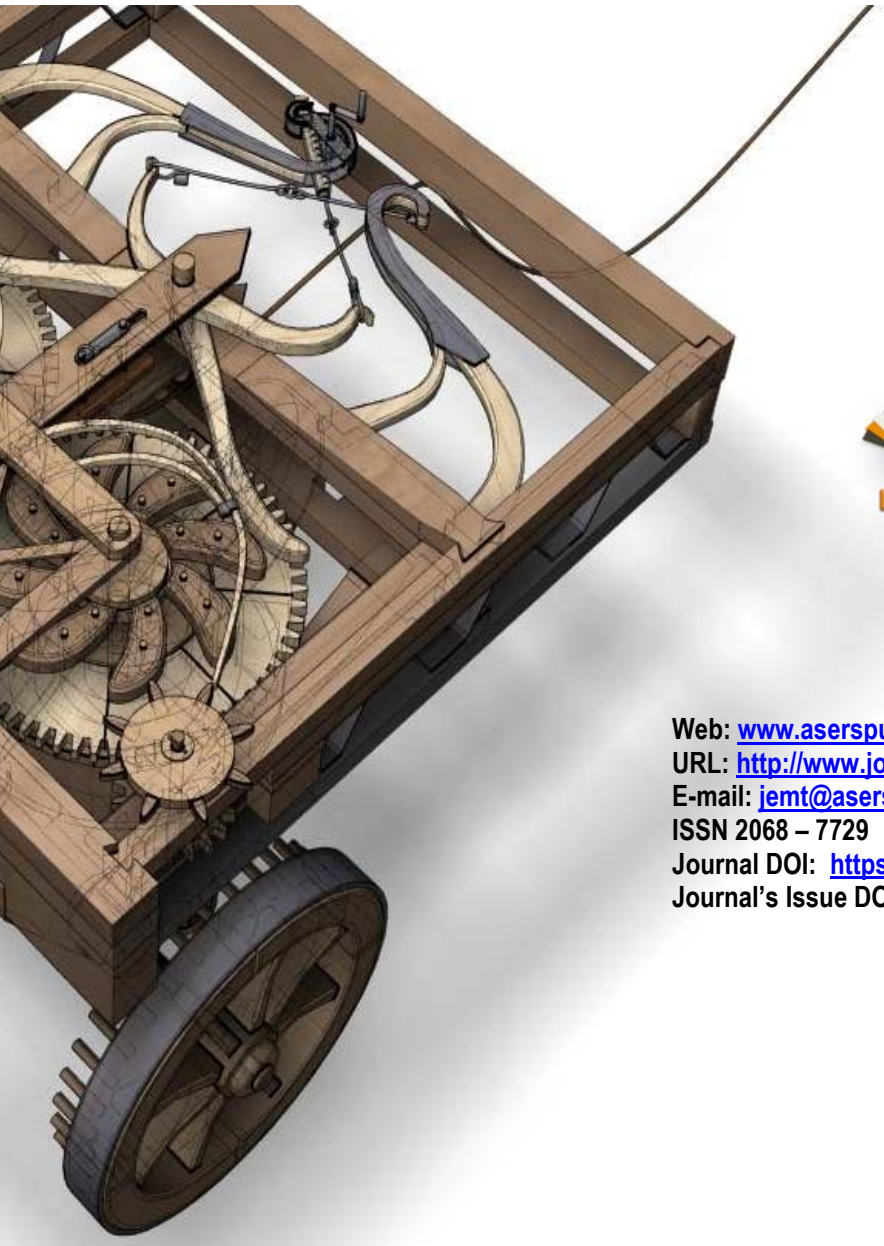

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