

## Article

# Sustainable Tourism Issues in European Countries during the Global Pandemic Crisis

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**Abstract:** Sustainable economic growth can be achieved through tourism by protecting the environment, maintaining natural resources, creating employment, improving cultural diversity, and recognizing cultural heritage values. The concept of tourism sustainability is gradually growing globally and becoming a dominant aspect in modern business, as companies need to meet stakeholders' demands regarding environmental management. Sustainable tourism incorporates environmental, social, economic, and cultural issues into operations. The demand for green tourism, ethical consumption, protection of natural resources, and living close to nature is expected to increase. In particular, the latter gains more and more popularity due to the stress caused by the global pandemic and also because values have been re-evaluated at every level of society. In this paper, we explore sustainability in the tourism industry within the international context during the COVID-19 pandemic, with a specific focus on tourism in 35 European countries for the period between January 2020 and September 2021. We aimed to study the impact of tourism on sustainability based on the Eurostat database, using cluster analysis and descriptive statistics. The results indicate that tourism will recover slightly, even though the pandemic will continue, recording different effects in European countries. Furthermore, we highlight the relationship between income and tourism, the clusters on tourism being significantly different according to income. The results also identify potential recovery options to align this business area with global sustainable development goals, generate effective transformational change, and suggest how to create a viable growth process pushed by a glocal perspective.

**Keywords:** sustainable tourism; sustainability; pandemic crisis; sustainable development goals; local tourism; glocal tourism



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## 1. Introduction

The global pandemic has caused economic crises around the world [1,2], and the tourism sector has been damaged severely [3,4]. The hospitality and tourism industry suffered from total travel bans, strict restrictions, lockdowns, and new health and safety regulations aimed at preventing the spread of the new coronavirus and managing the pandemic crisis [5]. Studies indicate the impact of perceived risks on travel behaviour and tourism decision making during and after the COVID-19 pandemic [3,4,6].

Lately, attention has been shifted towards sustainability, as new generations are more concerned about sustainable society, environmental issues; hence, consumption behaviours

have become increasingly sustainable [7]. Sustainability is about consuming resources in such a way that leaves sufficient resources for future generations [8]. Sustainable development means meeting the needs of the present generation “without compromising the ability of future generations to meet their own needs” [9]. The concept includes social, economic, and natural resources being available to secure sources of livelihood.

Seventeen Sustainable Development Goals (including 169 specific targets and 232 indicators) adopted by all United Nations Member States aim to achieve a sustainable future by protecting the planet, ending poverty, and ensuring prosperity [10]. Therefore, the present challenge is to consume and manage existing resources on the planet, not solely for the short term, but also taking into consideration the long-term effects and keeping in mind the potential needs of future generations.

According to the World Tourism Organization, sustainable tourism development is relevant to all types of tourism, including mass tourism and niche tourism [11]. Sustainable tourism uses environmental resources optimally, maintains ecological processes, and helps to conserve natural heritage and biodiversity. It respects the sociocultural authenticity and traditional values of host communities as well as ensures long-term operations, provides socioeconomic benefits to all stakeholders, creating income-earning opportunities, and contributes to poverty mitigation [12].

The concept of tourism sustainability is becoming a dominant aspect in modern business as companies need to meet stakeholders’ demands regarding environmental management [13,14]. Specifically, the tourism sector is shifting towards green, ethical, and cause-related tourism; hence, tourism accountability is gradually growing globally. Sustainable tourism incorporates environmental, social, economic, and cultural issues into operations. Moreover, awareness of the natural environment, water, wildlife, climate change, and pollution caused by tourism activities has been raised. Consequently, the demand for green tourism, ethical consumption, protection of natural resources, and living close to nature is expected to increase, especially because the latter gains more and more popularity due to the stress caused by the global pandemic and also because values have been re-evaluated on every level of society.

Sustainable development in tourism addresses economic, environmental, and social aspects through policies and strategies [15]. Stakeholder engagement is an important tool to have a dialogue with local communities, indigenous people, visitors, and the government [16]. Their involvement ensures ethical and responsible behaviour in the tourism sector [17–19]. Sustainable economic growth can be achieved through tourism by protecting the environment, maintaining natural resources, creating employment, reducing poverty, sustaining cultural diversity, and recognizing cultural heritage values [20–23]. The COVID-19 crisis has brought to the attention of stakeholders the major contribution that tourism can have in the human race for sustainable development. Closure of borders and the cessation of economic activity has raised questions about the need and opportunity for national and international tourist flows. Additionally, both specialists and companies in the field have tried to find alternatives to traditional tourism that meet people’s need to explore new places and experience other cultures while respecting the restrictions imposed by the COVID-19 crisis and protect the environment.

Therefore, our research purpose was to explore sustainability in the tourism industry within the international context during the COVID-19 pandemic. In this paper, we discuss how the tourism sector is affected by the health crisis, how it will recover after the pandemic, and if it can reinvent itself to become more sustainable and align with the global Sustainable Development Goals to generate transformational change.

In this paper, we describe the important elements of sustainable tourism as well as relations between human development and the environment. We examined sustainable tourism strategies during the global pandemic crisis and analysed the preferences of young consumers regarding sustainable tourism initiatives. Thus, the main aim of the study was to identify how the coronavirus pandemic affected tourism in European countries. Furthermore, we grouped the countries and identified if there are differences between the

clusters in terms of income, highlighting if country resilience and recovery are dependent on income. For this, we used descriptive statistics, cluster analysis, and differences between cluster means. According to the empirical results, the tourism sector registered a decreasing trend in 2020, and a slightly increasing trend in 2021. The countries were grouped into five different clusters depending on the intensity with which they have been affected by the pandemic. In 2020, due to similar restrictions, there were no differences between countries according to income, but in 2021, significant differences were recorded according to income, concluding that country resilience and recovery in the event of a crisis is influenced by development level. Our research contributes to theoretical and managerial advances in sustainable tourism, suggesting how to reach improved performance and competitive advantage in this sector after the pandemic crisis, and leveraging the innovative topic of global tourism.

This paper is structured as follows. The relevant literature is reviewed in the next section, outlining challenges to address after the pandemic and highlighting the main issues of sustainable tourism. This is followed by a description of our research methods and procedures. Section 4 presents our research results with a specific focus on tourism data from Eurostat for 35 European countries for the period January 2020 and September 2021, and is followed by a discussion of the main findings. The paper ends with our conclusions, theoretical and managerial implications, the study's limitations, and future research directions.

## 2. Literature Review

Academic research has been interested in the field of sustainable tourism, especially during the pandemic, to emphasize recovery strategies and underline the future development of the industry. A review of the literature outlines the current challenges to be addressed and the imperative of adopting sustainable approaches in this field.

### 2.1. *The Impact of the Pandemic Crisis on Tourism*

COVID-19 has a significant impact on business, globally ranging from disrupted value chains to decreased international trade; however, it has also stimulated innovations [24,25]. Tourism was considered an important tool to develop economies and decrease poverty. Before the outbreak of the pandemic, the tourism sector was responsible for 10% of global GDP and created about 320 million jobs around the world [26]. The travel and tourism sector had been growing, and the economics of many countries were exclusively dependent on it [16,27]. Tourism generates a series of positive effects on regional development and, implicitly, on the development of the national economy through local employment, development of local communities, training of companies in related fields, and development of transport infrastructures world [17,22,23,28]. In some countries, tourism is considered a strategic field and even a national priority, with special economic policies being implemented to amplify the positive effects that this branch has on the development of the national economy [18,21,29] or to reduce negative externalities generated by the environment [30–32]. The negative effects of the pandemic crisis on those countries will last much longer after the pandemic until people feel safe to travel again [26].

The pandemic has also changed consumer behaviour in favour of more ethical decisions and a slow decision-making process before making a purchase, as well as expecting companies to contribute to solving the problems society is facing [33–35]. The pandemic severely impacted tourism businesses worldwide, owing to the global measures introduced to prevent the spread of the virus, and the sector seems to be one of the last to restore as travel restrictions and global recession are continuing [36].

Tourism is not anticipated to recover until 2023 [26]. International tourism has declined by 74%, airplane travel by 60%, and due to this, CO<sub>2</sub> also fell by 6% in 2020 [37]. UNWTO [38] estimated international tourism arrivals decreased around 85% in 2021, in comparison with 2019. According to the Office for National Statistics [39], monthly air passenger arrivals to the United Kingdom declined by 98%. Furthermore, accommodation

and travel agency businesses reported a turnover decline to 9.3%, and employment in accommodation went down by 21.5%.

Tourism as an important driver of economic activities contributes to the GDP of many European countries, for instance: Greece, about 7%; France, more than 7%; Portugal, 8%; and Spain, about 12% [36]. It should be noted that accommodation and food services provided employment for 144 million people, including 44 million own-account workers and 7 million employers [40]. Additionally, the travel sector in G20 countries accounts for 10% of employment and about 9.5% of the GDP, and a 6-month disruption reduced 2.5% to 3.5% of the GDP in G20 countries [26].

Georgia, as a tourism-dependent country, generated 11% of the GDP from tourism [41]. In August 2019, about 1.1 million tourists visited Georgia, while their number dramatically decreased to 44 000 during the same period in 2020. In general, international visits declined by 90% [42]. Thus, the tourism industry has been deteriorating. However, countries including Georgia decided to offer long-term permits to foreign remote workers if they bring their virtual offices, hoping to benefit from their spending in local economies. Moreover, the government policy in Georgia regarding the use of hotels as quarantine zones and so-called COVID hotels has partially helped them to survive. For this purpose, more than 100 million GEL was paid by the government to hotels in Georgia [42].

The dramatic decline in the tourism sector was noted in Poland as well, while the accommodation occupancy rate reduced by 70% and international flights by 80–90% in 2020 [43]. The annual contribution of these to the country's economy was between 4% and 5% before the pandemic [43].

As international tourism dropped by about 80%, domestic tourism has facilitated in softening the problem [36]. For this reason, the tourism economy needs to rethink its future, move to digital transition, and use green, resilient, and sustainable strategies to recover [36]. OECD recommends governmental support to improve tourism, restore travellers' confidence, encourage the sector to adapt, promote domestic travel, strengthen international cooperation, and build sustainable tourism [36]. Furthermore, domestic tourism can motivate survival and recovery when international travel has been restricted, as it enables companies to maintain some tourism destinations [36].

The recent studies highlight a radical shift from globalization to regionalization as a distinctive characteristic of the current and post-pandemic period that is changing the nature of business on an international level [25].

## 2.2. Tourism Sustainability

Although the term sustainability is broadly used and prevalent in policy, business, and non-profit contexts, environmental destruction is continuing to reach unprecedented levels [44–48]. Sustainable tourism leads to the achievement of a positive economic impact without the negative effects of human activities on natural resources [49]. Even though it is a voluntary involvement, as members of our society, companies are called upon to respond to global challenges and contribute to the increase in societal wellbeing in a broader sense, instead of exclusively “producing economic profits for only a privileged few” [45]. Scholars emphasize the need to focus on sustainability issues while developing strategies in tourism, which includes environmental protection, stakeholder engagement, and an integrated approach that links natural, environmental, and historical resources [50]. Based on the SDGs, companies can clearly see where actions and changes are needed to move towards a sustainable perspective [45]. The SDGs and targets are interconnected and influence each other so that achieving a target contributes to accomplishing other goals [45,48].

On the one hand, tourism contributes to the economy, especially when a country depends on the sector; on the other hand, it puts pressure on the environment and natural resources of a particular region [51,52]. Since the demand for fresh food, freshwater, hotel gardens, catering, showers, laundries, etc., is growing and goods need to be provided through global supply chains, freight emissions are increasing [52], not to mention the ecological damage from cruise tourism and waste. For example, the landfill in Malta has a

height of 60 m [52], and on the artificial island Thilafushi in the Maldives, about 500 tonnes of rubbish is brought every day [53], associated with tourism activities. In Georgia, tons of waste is accumulated every year in the Kazbegi mountains that are located 3653 m above sea level, its surrounding territories, the path leading to it, and the national park located 1400 m above sea level, as a result of mass tourism activities. To mitigate this problem, hotel Altihut has been founded in this area to clean up the territory, host tourists, and increase their environmental awareness to reduce producing or storing of waste there.

Additionally, scientists confirm the negative effects of environmental pollutants on the health of the ecosystem [54]. Mass tourism can (1) increase the demand for water in a region with scarce water resources; (2) generate large amounts of waste; (3) increase pollution by using various transport means, especially when roads are not built and every car raises dust; (4) produce visual pollution because construction companies build high rises, hotels, and houses inappropriately located for the landscape and environment; (5) damage ecology because tourists and travel with a car or bicycle can disrupt birds, mammals, and plants, causing the loss of biodiversity; and (6) negatively affect the wildlife for which tourists are visiting a region due to more new hydroelectric power stations being built, since the development of the tourism industry requires more electricity and improved infrastructure [55].

Researchers suggest that sustainable tourism can be created by local communities while protecting the environment and managing a social project to improve the ecosystem and attract tourists [52]. Moreover, the tourism sector needs to take into account a relatively new paradigm, rights of nature. This means to recognize and honour that nature and its ecosystems, including animals, trees, oceans, rivers, and mountains, have rights as human beings have rights [56]. This holistic view suggests acknowledging that “nature in all its forms has the right to exist, persist, maintain and regenerate its vital cycles”, instead of treating it as a property under the law [56]. In this regard, sustainable tourism takes responsibility for protecting ecosystems while generating income by producing services to tourists. In connection with sustainability, the rights of nature paradigm aims to prohibit mitigations for financial gain, hinders overconsumption and creates a sustainable level of human use, reduces human footprints on the Earth to progress in line with developments in population and technologies, and preserves nature despite the dynamic changes in ecological processes [57].

Another concept aligned with sustainable tourism is the Blue Zone (BZ), that is, a geographical area where a great number of older people live. They are an isolated population “sharing homogeneous genetic background, traditional lifestyle and dietary habits” [58]. At present, there are four such regions identified in Okinawa, Sardinia, Costa Rica, and Greece [58]. The scientific community considers them to be effective models of healthy ageing that can be transferred. As a result, wellness and wellbeing tourism is expanding towards the Blue Zone concept to provide guests with healthy living in a more sustainable way [59].

### *2.3. Tourism Recovery after the Pandemic Crisis*

Considering the contribution of the tourism industry to the economy, it is necessary to restore the industry, especially in those countries heavily dependent on tourism as a main or even only source of income [60]. In addition to that, shorter travel distances lead to lower environmental impact; the regional or local destination can lead to stimulating restoration of the sector [36]. Moreover, during the pandemic, people have tended to stay local and travel to their own countries, which is inexpensive and affordable compared to international visits.

Furthermore, digitalization is another trend towards recovery with contactless payments, services, automation, and virtual experiences [36]. As the service sector has severely suffered during pandemic lockdowns, digital transformation is seen as a promising means, based on which a sustainability framework for business model modification can be created [61]. The research results show that recovery strategies should be based on technologi-



cal advances and digitalization with a focus on developing sustainable business models in accordance with SDGs [61].

It is worth noting that the concept of ownership of sustainability, argued by Bhattacharya [62], can create a company's quick development towards a more sustainable business. Sustainable tourism should ensure a balance between economic, environmental, and social dimensions in a destination, which is possible by preventing "excess tourists, the degradation of natural and cultural resources, and the dissatisfaction of the citizens" [63].

The research results demonstrate that turbulent times, such as the COVID-19 crisis, are also opportunities to develop new behaviours by re-evaluating consumption values, perceptions, and consumption choices as consumers have undergone changes in almost every aspect of their life, from professional to financial areas [64]. Moreover, tourists are rethinking their behaviour as a result of the current pandemic shifting their preferences towards sustainable tourism, choosing short destinations to avoid air travel, and mass tourism [65]. Recent studies show that tourists collect information about environmental issues and sustainable tourism, and they are aware of their potential influence on economic, social, and ecologically sustainable tourism [65]. Regarding tourist attractions, festivals, museums, and events, scholars suggest rethinking management approaches and looking for new models of participation while focusing on digital or smaller formats of tourism [66].

The trends of academic studies on digital technologies in tourism focus on the virtual environment, aimed at motivating consumers to visit a destination, and augmented reality relates mainly to cultural and heritage tourism [67]. The digital and virtual reality technologies seek to change the setup of the tourism industry, as digital tourism enables collaboration among nations and can extend across borders [67]. These tendencies are expected to be further developed especially after the pandemic.

Acknowledging the important role of tourism in the economy and how much it has been affected by the coronavirus crisis, the following hypotheses were formalized in order to highlight the main factors related to the tourism status:

**Hypothesis 0 (H0).**  $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

**Hypothesis 1 (H1).** *Tourism will recover in Europe, even as the pandemic continues.*

**Hypothesis 2 (H2).** *The European countries are not equally affected by the COVID-19 crisis regarding tourism.*

**Hypothesis 3 (H3).** *There are significant differences between clusters related to tourism status according to the level of development, concluding that the level of development significantly influences the tourism sector.*

### 3. Research Methods and Data Analysis

To analyse the most common words used in regard to sustainable tourism on the pandemic crisis, we used bibliometric analysis. Bibliometric analysis investigates the content in a systemic and systematic process, structuring and ordering the results obtained, converted from qualitative to quantitative.

Bibliometric methods provide quantitative analysis in the case of written publications, being related to the terms "infometrics" [68,69] and "scientometrics" [70]. This analysis involves the identification of the literature's content, i.e., within a given subject area. Therefore, the scientific production is evaluated, the results being of major importance to policy makers, scientists, or other stakeholders [71]. Bibliometric analysis is considered a state of the art methodology, including components from all scientific domains [72].

To identify the main topic of the content, we used word clouds to find the words with the highest frequency. The relationships between words can be determined by investigating which words tend to follow others immediately, or that tend to co-occur within the same documents. Both types of analyses are complementary. If the word network reveals the

word pairs that co-occur most often, the correlation network reveals which words appear more often.

In order to clusterize the countries according to the indicators reflecting the tourism status, we used cluster analysis. Cluster analysis can be very meaningful for grouping a set of objects, where the objects in the same group are more similar to each other than to those in other groups, or clusters. Hierarchical cluster analysis produces a set of categories or clusters by sequentially grouping the variables, clusters, or variables and clusters [73]. Thus, the similarity between objects is evaluated using a remote function and a wide variety of grouping algorithms [74]. The first step is represented by calculating the similarity measures between observations and between clusters after the observations are grouped into clusters [75].

The similarities between groups are identified using [76]:

1. Single-linkage clustering or the similarity of the closest pair:

$$d_{SL}(A, B) = \min_{i \in A, j \in B} d_{i, j} \quad (1)$$

This method is known also as nearest neighbour or minimum method, and implies the minimum distance between clusters or objects [77,78], its disadvantage being that the only value considered is the smallest distance between pairs [79].

2. Complete-linkage clustering or the similarity of the furthest pair:

$$d_{CL}(A, B) = \max_{i \in A, j \in B} d_{i, j} \quad (2)$$

This method is also referred to as furthest neighbour or maximum method; its principle is that it considers the furthest distance between pairs of cases [80].

3. Group-average clustering or the average similarity between groups:

$$d_{GA} = \frac{1}{N_A N_B} \sum_{i \in A} \sum_{j \in B} d_{i, j} \quad (3)$$

This method, also called unweighted pair group, used arithmetic averages. As an improvement to the first two methods, Sokal and Michener [81] considered the average of the distance values between pairs of cases. Its advantage is providing a more accurate evaluation of the distance between clusters [79].

For testing, if there are differences between clusters created according to tourism status regarding the country level of development, we used mean comparison.

The most common analytical method used for such determinations is analysis of variance (ANOVA). The null hypothesis ( $H_0$ ) implies all averages are not different:

$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$ . In case the null hypothesis ( $H_0$ ) is rejected in the ANOVA for the five groups, the alternative hypothesis implies that at least one average is different ( $H_1$ ). The disadvantage of this method that it does not provide detailed information regarding the differences among various combinations of groups [82].

The variables used in the analysis are arrivals at tourist accommodation establishments per capita and nights spent at tourist accommodation establishments per capita—reflecting tourism status and GDP per capita—reflecting the level of development. The data were collected since the pandemic appeared in Europe, i.e., 2020 until September 2021, for 35 European countries in Europe, the data source being Eurostat [83]. The analysis was realized using SPSS, Tableau, and VOS programme.

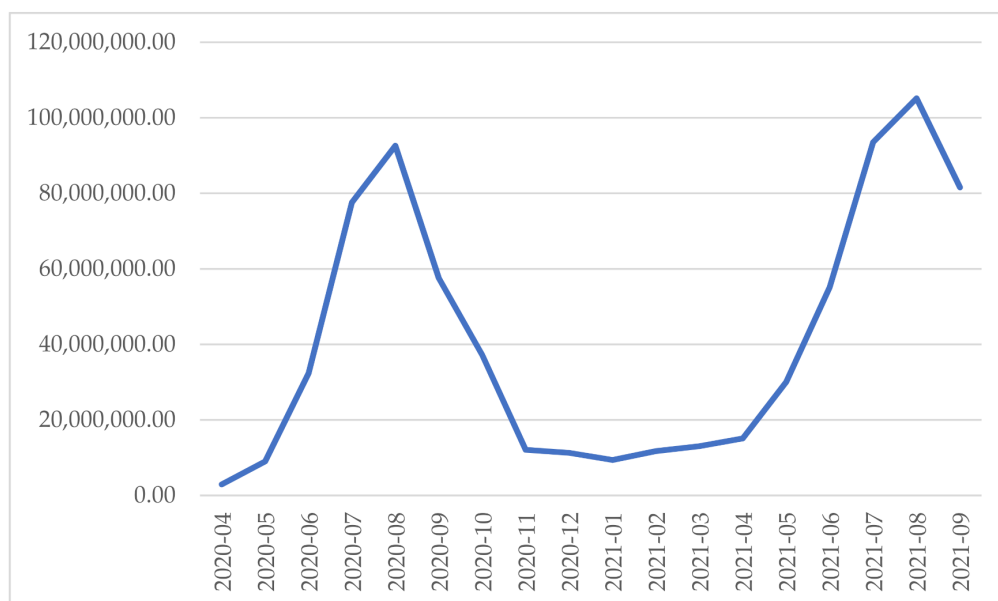
#### 4. Findings

To select the most relevant studies in the field, we used bibliometric analysis. The principal sources of scientific articles are the academic platforms: Web of Science and ResearchGate. We explored the content of 139 research articles related to sustainable tourism in the pandemic crisis. In order to highlight the structure of the scientific field, we used content analysis, inspecting the most common words and the relationships between words [84]. Additionally, the network of co-occurrences, with a frequency of at least 12 times, were considered, with a correlation degree greater than 0.5. The analysis was performed using the VOS programme.









**Figure 4.** The dynamic of arrivals at tourist accommodation establishments, 2020–2021, EU27. Source: authors based on Eurostat data [78].

This trend is explained by the trend of tourism increasing in the summer, as most of the population are on vacation; tourism is affected by seasonality but also by the pandemic context: in the cold months, the number of cases of COVID-19 is increased, leading to the increase in restrictions, including restrictions regarding travel. This aspect is reflected in the tourism situation.

In 2021, there was a small increase compared to 2020 (Figure 4), which can be explained by the appearance of the vaccine and the relatively high vaccination rate in some countries. However, the differences are not very big; there are still countries where the vaccination rate is low and the rate of illness and death are still high, although different measures are being taken. Therefore, we can conclude that the tourism status has improved due to the slight increase in the number of nights spent at tourism accommodations in 2021, confirming Hypothesis 1.

To clusterize the European countries according to tourism status (the number of nights spent by visitors at tourist accommodations and arrivals at tourist accommodations), we used a hierarchical cluster. Thus, five clusters were created, Cluster 5 registering the biggest values and Cluster 1 the smallest values according to tourism development. In 2020, the clusters were:

Cluster 1: Latvia, North Macedonia, Slovakia, Turkey, Romania, Bulgaria, Belgium, Albania, Poland, and Serbia;

Cluster 2: Finland, France, Germany, Greece, Ireland, Italy, Spain, Luxembourg, Portugal, Liechtenstein, Estonia, Denmark, and Czechia;

Cluster 3: Austria and Croatia;

Cluster 4: Cyprus, Malta, Netherlands, Norway, Slovenia, Sweden, and Switzerland;

Cluster 5: Iceland (Figure 5).

In 2021, the clusters were:

Cluster 1: Albania, Belgium, Bulgaria, Cyprus, Lithuania, Latvia, Ireland, Hungary, Czechia, Estonia, Finland, France, Germany, Poland, North Macedonia, Romania, Turkey, and Serbia;

Cluster 2: Denmark, Greece, Italy, Liechtenstein, Netherlands, Norway, Slovenia, Spain, Sweden, and Switzerland;

Cluster 3: Croatia;

Cluster 4: Malta;

Cluster 5: Iceland and Austria (Figure 6).

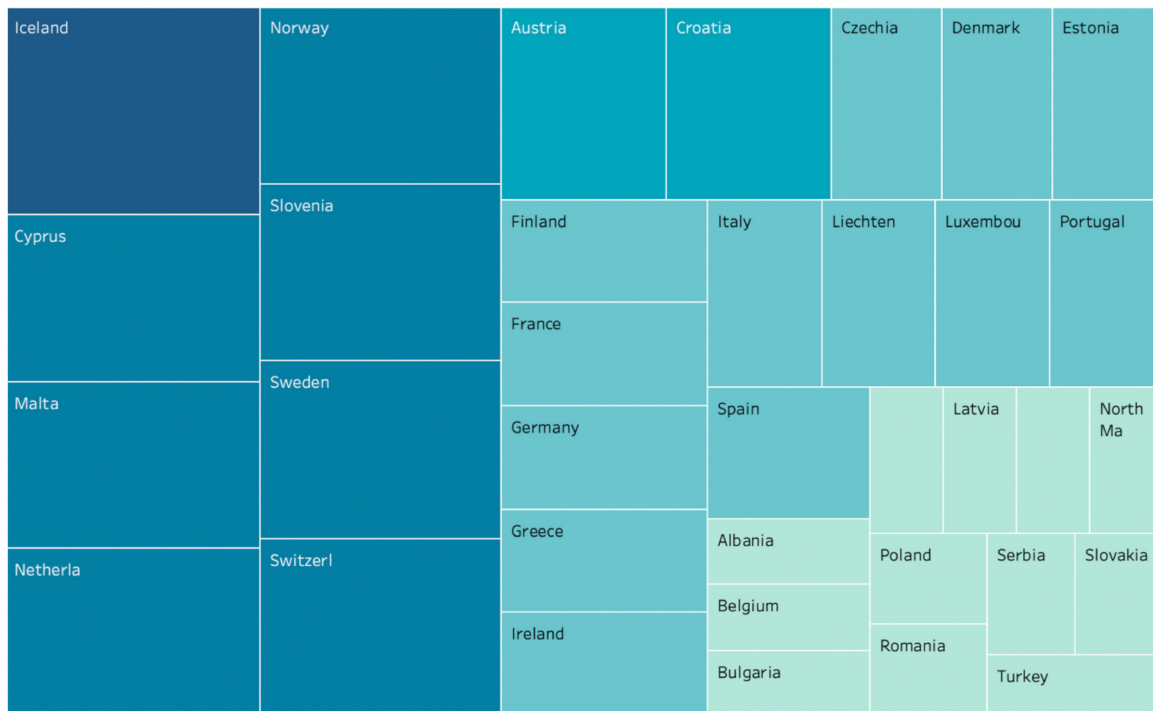


Figure 5. Cluster analysis, Europe 2020. Source authors’ elaboration.

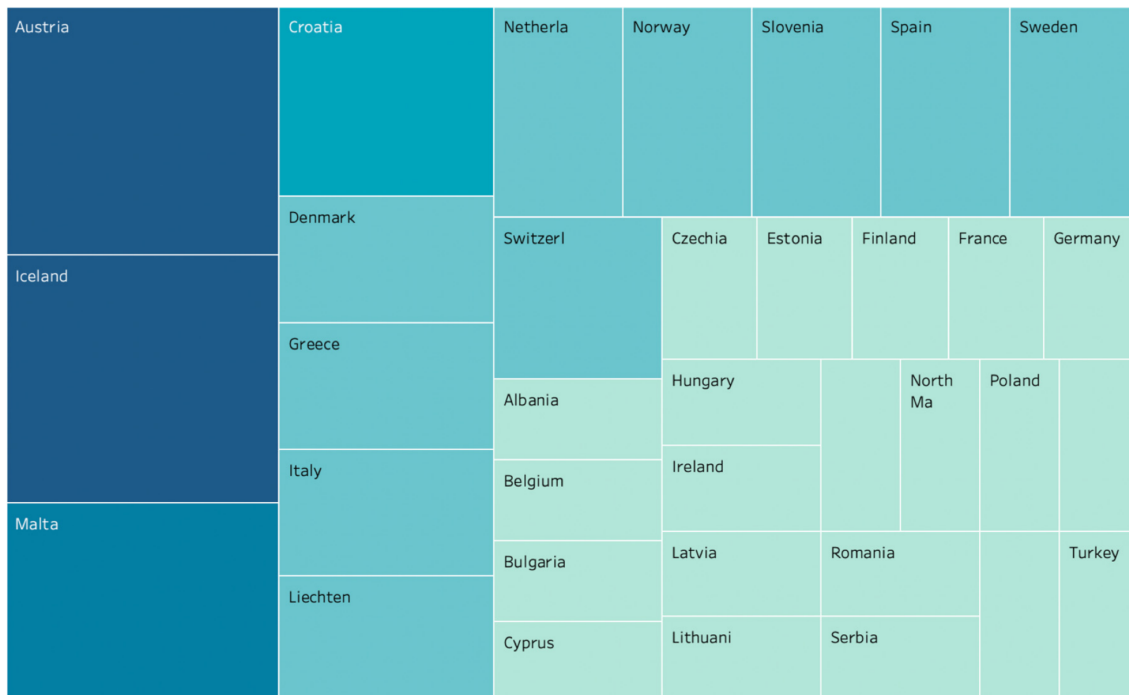


Figure 6. Cluster analysis, Europe 2021. Source: authors’ elaboration.

In 2021, Austria joined Cluster 5 along with Iceland, registering increases regarding the number of nights spent at tourist accommodations and arrivals at tourist accommodation establishments; in 2020, Austria was in Cluster 3. In Cluster 4 in 2021, only Malta remained; Netherlands, Norway, Slovenia, Sweden, and Switzerland moved to Cluster 2 due to decreases regarding the tourist situation. In the case of Cyprus, it moved to Cluster 1, the cluster with the lowest values.

Croatia remained in Cluster 3, both in 2021 and in 2020. From Cluster 2, Finland, France, Germany, Ireland, Luxembourg, Portugal, Estonia, Denmark, and Czechia moved to

Cluster 1 in 2021, registering a downward trend, and Greece, Italy, Spain, and Liechtenstein kept their place in Cluster 2. Thus, the European countries are affected differently by the coronavirus crisis from a tourism perspective, confirming Hypothesis 2.

As the resilience in crises, especially during coronavirus crisis, is explained by the level of development of the country [1,24], we performed a comparison between the five clusters regarding GDP per capita to see if there were differences from this perspective.

As it can be seen in Table 1, the significance is bigger than 0.1; therefore, there are no significant differences between the five clusters according to GDP per capita. Consequently, we concluded that the tourism status in 2020 was not the result of the country's level of development, surmising that pandemic shock and the restrictions were more powerful than the economic status. The restrictions affected people's decisions regarding activities including travel, either for vacation or work.

**Table 1.** Differences between cluster means according to GDP per capita, 2020.

		Sum of Squares	df	Mean Square	F	Sig.
GDP/capita 2020 Average Linkage (Between Groups)	(Combined)	0.090	4	0.023	0.610	0.659
	Linearity	0.042	1	0.042	1.145	0.293
	Deviation from Linearity	0.048	3	0.016	0.431	0.732
	Within Groups	1.071	29	0.037		
	Total	1.161	33			

Source: authors' elaboration.

Instead, in 2021 (Table 2), based on a slight recovery and relaxation on restrictions, between the five clusters are significant differences based on tourism and according to the GDP reflecting the level of development (considering a 10% significance). The more developed a country is, the more resilient it is in facing a crisis, consequently registering better results in terms of tourism. These results confirm Hypothesis 3 only in the case of 2021. In 2020, restrictions exceeded all the dimensions characterizing a country, the tourism being disrupted regardless of the level of development, compared to Dimian et al. [1,24], who stated that resilience in European countries is explained by income. In the case of tourism, the results do not apply to the first period of the pandemic because in 2020, there was no vaccine or other way to fight against the virus. Instead, since 2021, resilience has increased, reflected also in tourism. The increased resilience was the result of the increased income and development, which led to the discovery of the vaccine and other modalities to fight against the pandemic.

**Table 2.** Differences between cluster means according to GDP per capita, 2021.

		Sum of Squares	df	Mean Square	F	Sig.
GDP/capita 2021 Average Linkage (Between Groups)	(Combined)	1.165	4	0.291	2.462	0.067
	Linearity	0.941	1	0.941	7.953	0.009
	Deviation from Linearity	0.224	3	0.075	0.631	0.601
	Within Groups	3.430	29	0.118		
	Total	4.595	33			

Source: authors' elaboration.

Even though the coronavirus crisis has affected the entire world, including Europe in all domains, there are differences according to the population and the level of development. A developed country will always be able to better manage a crisis, affording the necessary resources. This hypothesis was also confirmed in the case of tourism. The

level of development of a country significantly influences the tourism status, even in a pandemic context. Thus, except for the year of 2020, when everything was controlled by the restrictions, impeding an independent decision on micro or macro level, the tourism sector functions in relation to the country level of development.

## 5. Discussion

The COVID-19 crisis has had a devastating impact on the tourism industry worldwide, the negative effects being felt by companies in the field and their suppliers and employees [15]. Tourism activity was affected by restrictions imposed by physical distance, health problems that have an impact on more and more people, and the decline of income due to the slowdown in economic activity [85,86].

The effects have been limited to local and regional levels because many national economies are heavily dependent on tourism activity. In Europe, the impact of the COVID-19 crisis on tourism has been dramatic given Europe's dependence on European tourism economies. Europe is the most important tourist destination in the world, and in some countries tourism is a key sector both in terms of jobs generated and revenue collected [87,88]. Countries such as Greece, Croatia, Cyprus, and Malta have a high degree of dependence and vulnerability in tourism [89].

The cut in the number of foreign tourists due to the closure of the borders and the need to maintain physical distance have generated huge losses for tourism and transport companies, some of them having major financial difficulties or even going bankrupt. The tourism industry is highly sensitive to significant shocks, due to the characteristics of tourist services, which are not basic services and which involve the mobility of consumers [90,91]. In addition, the current COVID-19 crisis and measures taken by public authorities have demonstrated the direct relationship between tourism and international relations, in the sense that tourism advances the spread of viruses and turns a local epidemic into a pandemic crisis. It can be said that tourism has generated the globalization of the health crisis and the acquisition of a pandemic such as COVID-19 [92–94]. In this context, the tourism sector registered huge damages in 2020, with 2021 being seen as an improvement, according to the measures implemented and the development level.

The pandemic might be seen as an opportunity to advance towards sustainable tourism. Taking into account the Sustainable Development Goals, tourism can make considerable contributions to the achievement of SDG 1—No poverty, SDG 8—Inclusive and sustainable economic growth, SDG 12—Sustainable consumption and production, and SDG 14—Sustainable use of oceans and marine resources [95]. It can be considered that the COVID-19 crisis has a positive impact on tourism because trends towards more sustainable business strategies accelerated [15].

One of the methods that will be considered for the development of sustainable tourism and increasing the resilience of this sector when confronted with black swan events is community-based tourism and rural tourism. This type of tourism will gain ground as it is based on the involvement of communities that will provide the necessary input and a development that takes into account local characteristics. In this way, the intensity of tourism development can be managed to ensure a balance between the economic, social and environmental aspects that this activity entails. Therefore, tourism can also be a tool to reduce poverty, by increasing wellbeing in local communities [96,97].

The pandemic might be seen as an opportunity to advance towards sustainable tourism. The crisis demonstrates the vulnerability of the tourism system and the need for the resilience of the tourism economy. Therefore, stimulating digitalization and transformation towards sustainable models are essential for the further development of the tourism sector worldwide [98,99].

The models suggested by researchers are very different. There are opinions according to which the COVID-19 crisis should generate a reset of international tourism activity and a restructuring of the hospitality industry at a macroeconomic level [100], in the sense of reducing tourism and (aviation) mass transport, with the purpose being the protection of



the environment. Consumers should all be more responsible and aware of the impact of their tourism activity and can focus on local destinations [101].

The promotion of localism in tourism can be a new dimension to promote sustainable development [102]). In addition, virtual tourism can meet the need to meet people, taking into account that some specialists consider that the need to travel is a “largely artificial need that has been created by super modern life, exacerbated by the media and stimulated by travel agencies and tour operators, and it must be revised downwards” [103].

Therefore, digitalization can provide viable solutions not only for the financial sector [83] but also for tourism. The COVID-19 crisis created an “opportunity to consider the need for the decrease of tourism” [102]. There are also specialists who draw attention to the negative impact that COVID-19 has on sustainable tourism from the perspective of companies in the field redirecting funds from CSR and sustainability programs to the natural recovery process generated by the dramatic decrease in revenues and profits [104].

This COVID-19 crisis revealed the sensitivity of the tourism sector to the pandemic crises. Until now, most scientific studies have focused on the vulnerability of tourism to terrorism, natural disasters, or economic crises. From this perspective, this study is prominent due to its degree of originality as well as its current consideration of the focus of scientific research on the impact of the COVID-19 crisis in certain economic sectors, countries, or regions.

## 6. Theoretical and Managerial Implications

From a theoretical point of view, the results of this study contribute to the understanding of the challenges the tourism industry is facing due to the pandemic crisis and tries to provide some insight in order to create the basis for a new era in this field. Over time, in fact, international tourism has been hit by numerous crises. The September 11th terrorist attacks, the 2009 financial crisis, and crises caused by medical events, such as the severe acute respiratory syndrome (SARS) outbreak (2003), and the 2015 Middle East Respiratory Syndrome (MERS), are among the black swan events that have marked international tourism. The current COVID-19 crisis is distinguished in magnitude and effects, generating not only challenges but also opportunities for both companies and public authorities. It contributes to the development of sustainable tourism as a solid solution to overcome the current crisis. Rural tourism, community-based tourism, and local tourism are intensely promoted solutions for increasing the resilience of this sector in the face of crises [105].

In this respect, we emphasize that local tourism is one of the strategies that can be put into practice in order to allow visitors to feel more comfortable when deciding to travel, spend a night in tourist accommodations, and visit new places. In fact, local tourism involves avoiding overcrowded locations and events, and permits foreign people to experience the real life of a country [106].

Given that people over 45 are the most active in terms of tourism but also the most affected by COVID-19, post-pandemic approaches require a rethinking of national tourism strategies that involve but are not only based on local tourism [84].

Having said that, nowadays, there is an increase in interest in the existing research on how it is possible to reinvent tourism [102,107–110], in particular, from stakeholders' perspectives [86,87] and in different geographical contexts [8,111]. However, there is still little discussion about how tourist destinations can simultaneously benefit from local, rural, and regional perspectives and virtual and interactive perspectives.

Therefore, this study has attempted to fill this gap by evaluating the process of tourism's reaction to the COVID-19 crisis.

Starting with the results of the bibliometric analysis, our research suggests strategies and tactics to overcome the negative effects that still affect the sector. Moreover, since the current pandemic is a prolonged crisis, our results also provide a direction for further research in the sustainable tourism field. In addition, from a managerial viewpoint, we highlight that local tourism is a specific strategy useful to destination managers.

However, sometimes it can be the case that fostering local tourism can have a double-edged sword effect on the reputation and image of a specific place, as this tourist strategy can be seen as a way to raise boundaries and to reduce the number of visitors that can access a geographical area [111].

Hence, the results of this study suggest that local tourism can, of course, be considered a solution to the existent crisis but there is the necessity to mix it with a new approach to attract visitors. In order to join the local and the global perspective, a glocal perception of tourism can be implemented in this peculiar situation: it can involve putting the virtual side of the business in action, while sustaining regional tourism [112]. For example, tourist managers and local policy makers can work together and provide customer journey touchpoints to offer to visitors—those interested in knowing several facets of a place—different kinds of information that explain culture, biodiversity, and enogastronomy, and connect these issues with others that could be found in similar locations around the globe. This glocal approach to tourism will allow for the mixing of local and regional aspects with the international side of this sector, giving a flavour to visitors of other places, traditions, cultures, and food specialities. Thus, glocal tourism opens a window to the world, leveraging digital technologies [105,113]. To spread glocal tourism, policy makers can decide to sustain it by buying digital technologies and virtual items, investing public money. These actions will help tourist managers create the right content for the right visitors, segmenting the public who will approach the new technologies into small groups characterised by similar features among them. In line with this idea, local policy makers and managers in the field can revisit and reinvent neglected areas—those that are not usually appreciated by tourists—adding these locations in the customer journey touchpoints that are able to provide virtual and interactive tours of the destination and of other related locations set in other countries. Strategic destination management acquires new values in the post-COVID-19 period in order to achieve the resumption of international tourism in safe conditions for national economies but also for tourists who are increasingly concerned about security measures against viruses. [114–116]. Green tourism or responsible tourism can be solutions that promote sustainable development in the leisure industry because economic, social, and environmental issues are balanced in the triple bottom line sustainability framework [117–121]. Therefore, the metamorphosis of international tourism must be the responsibility of both consumers and economic operators in a joint effort to minimize negative externalities and improve social and environmental performance.

## 7. Conclusions

The econometric analysis showed the complex nature of tourism. Many influential factors can be mentioned, such as the level of development of the country, the attitude of consumers toward the risks associated with national and international travel, social distance measures imposed by the authorities, the existence of the vaccine, and the resilience of national economies confronted with black swan events such as the COVID-19 crisis.

In this study, we assert that considering globalization, digitalization, and localization as opposed concepts does not reflect the current circumstances that are affecting contemporary tourism. There is the need to rethink the local and regional perspectives as being a part of the globalizing process; in fact, both approaches (global and local) can be applied in order to support the sustainable development of tourism technologies. The COVID-19 crisis has generated multiple direct effects on an economic, social, and environmental level, and there will certainly be changes in the behaviour of citizens and local companies towards foreigners given the risks posed by excessive population mobility generated by the intensification of international tourism. Locals must try to control their phobias caused by the resumption of international tourism activities, given the positive externalities involved in carrying out such activities.

For consumers of tourist services, there will be a change in behaviour in the sense that, at least in the first phase after the pandemic, local destinations will be preferred to the detriment of international ones. Tourism and airline companies must regain consumer

confidence by promoting health safety measures in the post-COVID-19 period, with an assumption of the costs generated by their implementation.

The glocalization viewpoint was not used, until now, to sustain tourism during nor after the COVID-19 crisis. Nevertheless, today, the concept of glocalization seems to be useful in understanding the dynamics of tourism, as it can aid managers and policy makers in realising that it is possible to reach different goals that seem to be unconcealable, such as:

- Preventing people from being in overcrowded places;
- Revitalise and rethink locations that seem to be less appreciated by tourists;
- Sustain the local and regional perspectives in order to find the possibility of integration between these two tourist points of view in the common target of the visitors;
- Reinvent the use of customer journey touchpoints (offering content linked not only with the place where they are installed but also with items that explain features of other international locations thematically similar to the place where local tourism is developed);
- Sustain the sustainable development.

## 8. Limitations and Future Research

In this paper, we offer several new insights. However, it should be noted that some limitations can be found in our study. First, the data were collected during a specific period of time (after the pandemic crisis); thus, the findings may not be generalizable to different contexts. Further studies need to explore how glocal tourism can be implemented in different contexts, in both developing and developed geographical areas. Second, because the bibliometric analysis studied the specified publications at one point in time, there could be certain peculiarities, which might have been different if the exploration was completed in a different period. Third, in this study, time constraints affected the primary and secondary data collection phases; in fact, we not only proposed the results of the bibliometric analysis but also presented several secondary data to sustain the research hypotheses. In this way, we tried to overcome this limitation by applying multiple data collection methods. Nevertheless, the authors believe that further studies could better explore the selected field and allow a deeper triangulation of results.

Having said that, in this paper, a research agenda is structured in order to explore and understand the development of glocal tourism that is seen as a strategy with the ability to help the spread of sustainability in this field. Thus, there is the need to:

- Explore the link between sustainability and glocal tourism. In fact, this approach to tourism will allow the development of new experiences that will surround individuals with digital content, such as communicating with different kinds of devices while enjoying local tourism. Thus, there is the need to implement glocal tourism in a sustainable way, in order to show that local and global tourism can be successfully mixed.
- Use glocal tourism to sustainably foster economic growth. Economic growth can be sustained by using digital applications as new virtual changes allow visitors and destination organisations to benefit from high-value data, content services, and many other communication items that need to be managed following a sustainable approach. This relationship between sustainability, glocal tourism, and economic growth was not yet explored.
- Reinvent local tourism based on sustainable inclusion of different kinds of visitors and boosted by digital applications. All individuals (with different needs) who are attracted by thematic tourism will use digital applications as an opportunity to continue visiting several destinations, using online tools in an effective and efficient manner, strictly linked to the places where the local tourism is developed.
- Not underestimate the importance of security while exploring new locations. This involves paying attention to the functions of authorization, encryption, authentication, and implementation of service policy agreements between various stakeholders of the destination.

- Understand the role played by virtual tours in pushing tourists to explore places that they visited based on customer journey touchpoints. This will allow users to see places that were difficult to reach before (during the pandemic), and it may also help tourists acquire wider access to different cultures, heritage, traditions, etc.
- Enhance visitors' satisfaction, mixing local and virtual sides of tourism. Glocal tourism will offer users virtual content, images, and videos of places located in different parts of the globe. People will save time and money by determining whether it is worth traveling to a destination they never considered before, due to the customer journey touchpoints.

By following the agenda, further research can address issues related to tourism, and present its important role in boosting sustainability and coordinating the two sides (local and global) of the same coin.

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## References

1. Dimian, G.C.; Apostu, S.A.; Vasilescu, M.D.; Aceleanu, M.I.; Jablonsky, J. Vulnerability and resilience in health crises. Evidence from European countries. *Technol. Econ. Dev. Econ.* **2021**, *27*, 783–810.
2. Goschin, Z.; Dimian, G.C. Healthcare under pressure: Modelling COVID-19 fatalities with multiscale geographically weighted regressions. *Kybernetes*. 2021. [[CrossRef](#)]
3. Gaffar, V.; Tjahjono, B.; Abdullah, T.; Sari, M.; Rofaida, R. Unfolding the Impacts of a Prolonged COVID-19 Pandemic on the Sustainability of Culinary Tourism: Some Insights from Micro and Small Street Food Vendors. *Sustainability* **2022**, *14*, 497. [[CrossRef](#)]
4. Fusté-Forné, F.; Ivanov, S. Robots in service experiences: Negotiating food tourism in pandemic futures. *J. Tour. Futures* **2021**, *7*, 303–310. [[CrossRef](#)]
5. Jones, T.; Nguyen, M.-H. COVID-19 early-stage social acceptance of entry restrictions for international tourists to Japan. *J. Tour. Futures* **2021**, *7*, 322–336. [[CrossRef](#)]
6. Matiza, T. Post-COVID-19 crisis travel behaviour: Towards mitigating the effects of perceived risk. *J. Tour. Futures* **2020**. ahead-of-print. [[CrossRef](#)]
7. Newsome, D. The collapse of tourism and its impact on wildlife tourism destinations. *J. Tour. Futures* **2020**, *7*, 295–302. [[CrossRef](#)]
8. Dubois, L.-E.; Dimanche, F. The futures of entertainment dependent cities in a post-COVID world. *J. Tour. Futures* **2021**, *7*, 364–376. [[CrossRef](#)]
9. Our Common Future: Report of the World Commission on Environment and Development. Our Common Future, Chapter 2: Towards Sustainable Development. UN Documents: Gathering a Body of Global Agreements. Available online: <http://www.un-documents.net/ocf-02.htm> (accessed on 28 September 2021).
10. United Nations. Take Action for the Sustainable Development Goals. Available online: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/> (accessed on 29 May 2021).
11. World Tourism Organizations: A United Nations Specialized Agency (UNWTO). Sustainable Development. 2021. Available online: <https://www.unwto.org/sustainable-development> (accessed on 28 September 2021).
12. Huete-Alcocer, N.; López-Ruiz, V.R.; Grigorescu, A. Measurement of satisfaction in sustainable tourism: A cultural heritage site in Spain. *Sustainability* **2019**, *11*, 6774.
13. Andrei, D.R.; Gogonea, R.M.; Zaharia, M.; Andrei, J.V. Is Romanian rural tourism sustainable? Revealing particularities. *Sustainability* **2014**, *6*, 8876–8888.
14. Boboc, C.; Ghita, S.; Vasile, V. Patterns in Romanian Tourism Activity—A Factorial Analysis. In *Caring and Sharing: The Cultural Heritage Environment as an Agent for Change*; Springer: Cham, Switzerland, 2019; pp. 91–101.

15. Sunardi, S.; Roedjinandari, N.; Estikowati, E. Sustainable tourism model in the new normal era. *Linguist. Cult. Rev.* **2021**, *5*, 1510–1517.
16. Lincaru, C.; Pirciog, S.; Atanasiu, D.; Stroe, C.; Ciucă, V.; Grigorescu, A. Patterns of Mainly Tourism Sectors at Local Level by Employee's Characteristics Using Gis Multivariate Clustering Analysis—Romania Case Study. *Reg. Sci. Inq.* **2020**, *12*, 261–290.
17. Surugiu, C.; Surugiu, M.R. Tourism as backer for regional development. A real deal or just another hope? *EuroEconomica* **2015**, *34*, 113–132.
18. Zaman, G.; Vasile, V.; Surugiu, M.; Surugiu, C. Tourism and economic development in Romania: Input-output analysis perspective. *Rom. J. Econ.* **2010**, *31*, 40.
19. Herteliu, C.; Jianu, I.; Dragan, I.M.; Apostu, S.; Luchian, I. Testing Benford's Laws (non) conformity within disclosed companies' financial statements among hospitality industry in Romania. *Phys. A Stat. Mech. Its Appl.* **2021**, *582*, 126221.
20. Boboc, C.; Ciuhu, A.M.; Vasile, V.; Ghita, S. Cultural tourism in central region of Romania. *Chall. Knowl. Soc.* **2019**, *13*, 982–988.
21. Stefan, M.C.; Andreiana, V.A.; Vlad, M. The Development of the Mountain Tourism Services in Romania—the Macroeconomic Implications and Strategic Perspectives. *LUMEN Proc.* **2019**, *8*, 106–117.
22. Vasile, V.; Bănică, E. Cultural Heritage Tourism Export and Local Development. Performance Indicators and Policy Challenges for Romania. In *Caring and Sharing: The Cultural Heritage Environment as an Agent for Change*; Springer: Cham, Switzerland, 2019; pp. 271–290.
23. Vasile, V.; Ciuhu, A.M. Employment Profile in Tourism Sector in Romania—Skills Demand and Quality of Jobs' Perspectives in the Context of Local Heritage Valuing Using Business Innovation and ITC Support. In *Caring and Sharing: The Cultural Heritage Environment as an Agent for Change*; Springer: Cham, Switzerland, 2019; pp. 261–270.
24. Dimian, G.C.; Vasilescu, M.D.; Apostu, S.A.; Aceleanu, M.I.; Jablonsky, J. Analysis of the Europeans' Attitudes towards Vaccination in the Context of the COVID-19 Pandemic—Implications for Public Health Policy 1. *Ekon. Cas.* **2021**, *69*, 997–1016.
25. Marinov, M.; Marinova, S. (Eds.) *COVID-19 and International Business: Change of Era*, 1st ed.; Routledge: London, UK, 2020. [CrossRef]
26. Behsudi, A.; International Monetary Fund: Finance & Development. Tourism-Dependent Economies Are among Those Harmed the Most by the Pandemic. December 2020. Available online: [https://www.imf.org/external/pubs/ft/fandd/2020/12/impact-of-the-pandemic-on-tourism-behsudi.htm?fbclid=IwAR2CPDr31bXMujCGPLu8KPz9G\\_Csos1YirjdW4kRvvjAaXiZpX8N8Z\\_qPkY](https://www.imf.org/external/pubs/ft/fandd/2020/12/impact-of-the-pandemic-on-tourism-behsudi.htm?fbclid=IwAR2CPDr31bXMujCGPLu8KPz9G_Csos1YirjdW4kRvvjAaXiZpX8N8Z_qPkY) (accessed on 12 December 2021).
27. Balsalobre-Lorente, D.; Driha, O.M.; Shahbaz, M. (Eds.) *Strategies in Sustainable Tourism, Economic Growth and Clean Energy*; Springer: Berlin/Heidelberg, Germany, 2021.
28. Zaman, G.; Vasile, V.; Goschin, Z.; Rosca, E. Typology and planning of the tourism regional development in Romania. *USV Ann. Econ. Public Adm.* **2013**, *12*, 7–17.
29. Adriana, G.; Ion, C.R.; Nicoleta, F.M. The Impact of Turkey's Socio-Political and Natural Context on Tourism between 2010 and 2018. *Ovidius Univ. Ann. Econ. Sci. Ser.* **2018**, *18*, 20–26.
30. Balsalobre-Lorente, D.; Leitão, N.C. The role of tourism, trade, renewable energy use and carbon dioxide emissions on economic growth: Evidence of tourism-led growth hypothesis in EU-28. *Environ. Sci. Pollut. Res.* **2020**, *27*, 45883–45896.
31. Balsalobre-Lorente, D.; Driha, O.M.; Shahbaz, M.; Sinha, A. The effects of tourism and globalization over environmental degradation in developed countries. *Environ. Sci. Pollut. Res.* **2019**, *27*, 7130–7144.
32. Sinha, A.; Driha, O.; Balsalobre-Lorente, D. Tourism and inequality in per capita water availability: Is the linkage sustainable? *Environ. Sci. Pollut. Res.* **2020**, *27*, 10129–10134.
33. Vollero, A.; Palazzo, M.; Siano, A.; Foroudi, P. From CSR to CSI: Analysing consumers' hostile responses to branding initiatives in social media-scape. *Qual. Mark. Res. Int. J.* **2020**, *24*, 143–160. [CrossRef]
34. Palazzo, M.; Foroudi, P.; Kitchen, P.J.; Siano, A. Developing corporate communications: Insights from the Italian scenario. *Qual. Mark. Res. Int. J.* **2020**, *23*, 407–426. [CrossRef]
35. Gigauri, I. Corporate Social Responsibility and COVID-19 Pandemic Crisis: Evidence from Georgia. *Int. J. Sustain. Entrep. Corp. Soc. Responsib. (IJSECSR)* **2021**, *6*, 30–47.
36. OECD. Rebuilding Tourism for the Future: COVID-19 Policy Responses and Recovery. OECD.org, OECD Policy Responses to Coronavirus (COVID-19). 2020. Available online: [https://www.oecd.org/coronavirus/policy-responses/rebuilding-tourism-for-the-future-covid-19-policy-responses-and-recovery-bced9859/?fbclid=IwAR11G0tMATrbelfW1Q3de\\_XW-eUk4n5\\_u-ckH\\_yC-TVFzKALKuJRY7L39Kg](https://www.oecd.org/coronavirus/policy-responses/rebuilding-tourism-for-the-future-covid-19-policy-responses-and-recovery-bced9859/?fbclid=IwAR11G0tMATrbelfW1Q3de_XW-eUk4n5_u-ckH_yC-TVFzKALKuJRY7L39Kg) (accessed on 10 November 2021).
37. CCSA. *How COVID-19 Is Changing the World: A Statistical Perspective*; The Committee for the Coordination of Statistical Activities, 2021; Volume III. Available online: [https://unstats.un.org/unsd/ccsa/documents/covid19-report-ccsa\\_vol3.pdf](https://unstats.un.org/unsd/ccsa/documents/covid19-report-ccsa_vol3.pdf) (accessed on 10 November 2021).
38. UNWTO. *World Tourism Barometer*; UNWTO: Madrid, Spain, 2021; Volume 19, p. 2.
39. Office for National Statistics. Coronavirus and the Impact on the UK Travel and Tourism Industry. 2021. Available online: [https://www.ons.gov.uk/businessindustryandtrade/tourismindustry/articles/coronavirusandtheimpactontheuktravelandtourismindustry/2021-02-15?fbclid=IwAR3OF0j1uRS6ogqH\\_n1AIJjc03jP1Q5Cxmnu3bcXc6EE9f5QDp1eXi\\_u2hw](https://www.ons.gov.uk/businessindustryandtrade/tourismindustry/articles/coronavirusandtheimpactontheuktravelandtourismindustry/2021-02-15?fbclid=IwAR3OF0j1uRS6ogqH_n1AIJjc03jP1Q5Cxmnu3bcXc6EE9f5QDp1eXi_u2hw) (accessed on 18 October 2021).
40. International Labour Organization (ILO). COVID-19 and the Tourism Sector. Briefing Note. 2020. Available online: [https://www.ilo.org/sector/Resources/publications/WCMS\\_741468/lang--en/index.htm](https://www.ilo.org/sector/Resources/publications/WCMS_741468/lang--en/index.htm) (accessed on 29 October 2021).



41. Economic Policy Research Center (EPRC). Economic Impacts of COVID-19 the World and Georgia. Analytical Report. 2020. Available online: [https://eprc.ge/index.php?m=11&news\\_id=216&lng=eng](https://eprc.ge/index.php?m=11&news_id=216&lng=eng) (accessed on 29 October 2021).
42. Khorbaladze, T. *The COVID-19 Pandemic and Its Impact on Georgia's Economy—Regional Analysis*; EECMD—Eastern European Centre for Multiparty Democracy: Tbilisi, Georgia, 2020. Available online: [https://eecmd.org/wp-content/uploads/2021/02/Policy-Paper\\_Economic-Development\\_Regions.pdf](https://eecmd.org/wp-content/uploads/2021/02/Policy-Paper_Economic-Development_Regions.pdf) (accessed on 18 October 2021).
43. Korinith, B.; Ranasinghe, R. COVID-19 Pandemic's Impact on Tourism in Poland in March 2020. *GeoJournal Tour. Geosites* **2020**, *31*, 987–990. [[CrossRef](#)]
44. Panait, M.; Petrescu, M.G. Quality management and social responsibility in the context of sustainable development. *Industria* **2015**, *43*, 175–189.
45. Torelli, R. Sustainability, responsibility and ethics: Different concepts for a single path. *Soc. Responsib. J.* **2020**. ahead-of-print. [[CrossRef](#)]
46. Brezoi, A.G. Ethics and corporate social responsibility in the current geopolitical context. *Econ. Insights—Trends Chall.* **2018**, *7*, 45–52.
47. Khan, S.A.R.; Yu, Z.; Panait, M.; Janjua, L.R.; Shah, A. (Eds.) *Global Corporate Social Responsibility Initiatives for Reluctant Businesses*; IGI Global: Hershey, PA, USA, 2021.
48. Sima, V. Green Policies—Determinant Vector for Competitiveness Enhancement. *Econ. Insights—Trends Chall.* **2014**, *66*, 95–106.
49. Prasetyo, J.B.; Muhammad, F.; Sugianto, D.N. An Overview of Encouraging Sustainable Tourism in the Coastal Tourism of Karang Jahe Beach: Issues and Challenges. In Proceedings of the 3rd International Conference on Energy, Environmental and Information System (ICENIS 2018), Semarang, Indonesia, 14–15 August 2018; Volume 73, p. 02015. [[CrossRef](#)]
50. Sotiriadis, M.; Shen, S. *Blue Economy and Sustainable Tourism Management in Coastal Zones: Learning from Experience*; ADBI Working Paper 1174; Asian Development Bank Institute: Tokyo, Japan, 2020; Available online: <https://www.adb.org/publications/blue-economy-sustainable-tourism-management-coastal-zones> (accessed on 14 October 2021).
51. Ungureanu, A.; Vasile, A.J. Tertialization of a Transitional Economy—An Overview of Romanian Tourism during 2005–2015. In *Tourism International Scientific Conference Vrnjačka Banja-TISC*; University of Kragujevac: Kragujevac, Serbia, 2017; Volume 2, pp. 518–537.
52. Hampton, M.P.; Jeyacheya, J. Tourism-Dependent Small Islands, Inclusive Growth, and the Blue Economy. *One Earth* **2020**, *2*, 8–10. [[CrossRef](#)]
53. Stevens, G.M.W.; Froman, N. The Maldives Archipelago. In *World Seas: An Environmental Evaluation*; Sheppard, C., Ed.; Elsevier Ltd.: London, UK, 2019; pp. 211–236.
54. Patti, T.B.; Fobert, E.K.; Reeves, S.E.; Burke da Silva, K. Spatial distribution of microplastics around an inhabited coral island in the Maldives, Indian Ocean. *Sci. Total Environ.* **2020**, *748*, 141263. [[CrossRef](#)] [[PubMed](#)]
55. Rajebashvili, G. *Impact of Mass Tourism on the Kazbegi Municipality*; Heinrich Böll Stiftung: Tbilisi, Georgia, 2020.
56. Global Alliance for the Rights of Nature (GARN). What is Rights of Nature? Available online: <https://www.therightsofnature.org/what-is-rights-of-nature/> (accessed on 18 September 2021).
57. La Follette, C. *Rights of Nature: The New Paradigm*; AAG Newsletter, American Association of Geographers: Washington, DC, USA, 2019. Available online: <http://news.aag.org/2019/03/rights-of-nature-the-new-paradigm/> (accessed on 30 May 2021).
58. Poulain, M.; Buettner, D.; Pes, G. Blue Zones. In *Encyclopedia of Biomedical Gerontology*; Academic Press: Cambridge, MA, USA, 2020.
59. Blue Zones. Borgo Egnazia Is First Hospitality Partner to Offer Blue Zones Retreats. Available online: <https://www.bluezones.com/news/borgo-egnazia-is-first-hospitality-partner-to-offer-blue-zones-retreats/> (accessed on 30 September 2021).
60. Ranasinghe, J.; Karunarathna, A.; Herath, H. After Corona (COVID-19) impacts on global poverty and recovery of tourism-based service economies: An appraisal. *Int. J. Tour. Hosp.* **2021**, *1*, 52–64. [[CrossRef](#)]
61. Gregurec, I.; Tomičić Furjan, M.; Tomičić-Pupek, K. The Impact of COVID-19 on Sustainable Business Models in SMEs. *Sustainability* **2021**, *13*, 1098. [[CrossRef](#)]
62. Bhattacharya, C.B. Taking Ownership of a Sustainable future Three CEOs offer Lessons on Their Pursuit of Sustainability. *McKinsey Quarterly*. 12 May 2020. Available online: <https://www.mckinsey.com/featured-insights/leadership/taking-ownership-of-a-sustainable-future> (accessed on 22 September 2021).
63. Borrajo-Millán, F.; Alonso-Almeida, M.-d.-M.; Escat-Cortes, M.; Yi, L. Sentiment Analysis to Measure Quality and Build Sustainability in Tourism Destinations. *Sustainability* **2021**, *13*, 6015. [[CrossRef](#)]
64. Orîndaru, A.; Popescu, M.-F.; Căescu, Ş.-C.; Botezatu, F.; Florescu, M.S.; Runceanu-Albu, C.-C. Leveraging COVID-19 Outbreak for Shaping a More Sustainable Consumer Behavior. *Sustainability* **2021**, *13*, 5762. [[CrossRef](#)]
65. Eichelberger, S.; Heigl, M.; Peters, M.; Pikkemaat, B. Exploring the Role of Tourists: Responsible Behavior Triggered by the COVID-19 Pandemic. *Sustainability* **2021**, *13*, 5774. [[CrossRef](#)]
66. Roigé, X.; Arrieta-Urtizberea, I.; Seguí, J. The Sustainability of Intangible Heritage in the COVID-19 Era—Resilience, Reinvention, and Challenges in Spain. *Sustainability* **2021**, *13*, 5796. [[CrossRef](#)]
67. Akhtar, N.; Khan, N.; Mahroof Khan, M.; Ashraf, S.; Hashmi, M.S.; Khan, M.M.; Hishan, S.S. Post-COVID 19 Tourism: Will Digital Tourism Replace Mass Tourism? *Sustainability* **2021**, *13*, 5352. [[CrossRef](#)]
68. Egghe, L.; Rousseau, R. *Introduction to Informetrics: Quantitative Methods in Library, Documentation and Information Science*; Elsevier Science Publishers: Amsterdam, The Netherlands, 1990.
69. Wolfram, D. *Applied Informetrics for Information Retrieval Research*; No. 36; Greenwood Publishing Group: Westport, CT, USA, 2003.
70. Bar-Ilan, J. Informetrics at the beginning of the 21st century—A review. *J. Informetr.* **2008**, *2*, 1–52.

71. Ellegaard, O.; Wallin, J.A. The bibliometric analysis of scholarly production: How great is the impact? *Scientometrics* **2015**, *105*, 1809–1831.
72. Glanzel, W. *Bibliometrics as a Research Field a Course on Theory and Application of Bibliometric Indicators*. 2003. Available online: [https://www.researchgate.net/publication/242406991\\_Bibliometrics\\_as\\_a\\_research\\_field\\_A\\_course\\_on\\_theory\\_and\\_application\\_of\\_bibliometric\\_indicators](https://www.researchgate.net/publication/242406991_Bibliometrics_as_a_research_field_A_course_on_theory_and_application_of_bibliometric_indicators) (accessed on 12 June 2021).
73. Bridges, C.C. Hierarchical Cluster Analysis. *Psychol. Rep.* **1996**, *18*, 851–854.
74. Dobre, I.; Davidescu, A.A.; Apostu, S.A. Analysing food security at European level. *Econ. Comput. Econ. Cybern. Stud. Res.* **2020**, *54*, 173–185. [\[CrossRef\]](#)
75. Boccard, J.; Rudaz, S. Mass spectrometry metabolomic data handling for biomarker discovery. In *Proteomic and Metabolomic Approaches to Biomarker Discovery*; Academic Press: Cambridge, MA, USA, 2013; pp. 425–445.
76. Nguyen, T.A.D.; Jones, Z.R.; Leto, D.F.; Wu, G.; Scott, S.L.; Hayton, T.W. Ligand-exchange-induced growth of an atomically precise Cu<sub>29</sub> nanocluster from a smaller cluster. *Chem. Mater.* **2016**, *28*, 8385–8390.
77. Florek, K.; Lukaszewicz, J.; Perkal, J.; Steinhaus, H.; Zubrzycki, S. Sur la liaison: Division des points d'un ensemble fini. *Colloq. Math.* **1951**, *2*, 282–285.
78. Sneath, P.H.A. The application of computers to taxonomy. *J. Gen. Microbiol.* **1957**, *17*, 201–226.
79. Yim, O.; Ramdeen, K.T. Hierarchical cluster analysis: Comparison of three linkage measures and application to psychological data. *Quant. Methods Psychol.* **2015**, *11*, 8–21.
80. Sokal, R.R.; Michener, C.D. A statistical method for evaluating systematic relationships. *Univ. Kans. Sci. Bull.* **1958**, *38*, 1409–1438.
81. Sokal, R.R.; Sneath, P.H.A. *Principles of Numerical Taxonomy*; W. H. Freeman: San Francisco, CA, USA, 1963.
82. Lee, S.; Lee, D.K. What is the proper way to apply the multiple comparison test? *Korean J. Anesthesiol.* **2018**, *71*, 353.
83. Eurostat Data. Available online: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Tourism\\_statistics\\_-\\_nights\\_spent\\_at\\_tourist\\_accommodation\\_establishments](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Tourism_statistics_-_nights_spent_at_tourist_accommodation_establishments) (accessed on 20 September 2021).
84. Vasile, V.; Panait, M.; Apostu, S.A. Financial inclusion paradigm shift in the postpandemic period. digital-divide and gender gap. *Int. J. Environ. Res. Public Health* **2021**, *18*, 10938.
85. Islam, M.M.; Fatema, F. COVID-19 and sustainable tourism. *Asian Bus. Rev.* **2020**, *10*, 53–60.
86. Sharma, G.D.; Thomas, A.; Paul, J. Reviving tourism industry post-COVID-19: A resilience-based framework. *Tour. Manag. Perspect.* **2021**, *37*, 100786.
87. Bulin, D.; Gheorghie, G.; Tenie, I.P. EU Most Vulnerable Economies from the Tourism Sector Perspective: A Macroeconomic Approach. *Glob. Econ. Obs.* **2021**, *9*, 48–54.
88. Khalid, U.; Okafor, L.E.; Burzynska, K. Does the size of the tourism sector influence the economic policy response to the COVID-19 pandemic? *Curr. Issues Tour.* **2021**, *24*, 2801–2820.
89. Okafor, L.E.; Khalid, U.; Burzynska, K. Does the level of a country's resilience moderate the link between the tourism industry and the economic policy response to the COVID-19 pandemic? *Curr. Issues Tour.* **2022**, *25*, 303–318.
90. Chang, C.L.; McAleer, M.; Ramos, V. A charter for sustainable tourism after COVID-19. *Sustainability* **2020**, *12*, 3671.
91. Palacios-Florencio, B.; Santos-Roldán, L.; Berbel-Pineda, J.M.; Castillo-Canalejo, A.M. Sustainable Tourism as a Driving force of the Tourism Industry in a Post-COVID-19 Scenario. *Soc. Indic. Res.* **2021**, *158*, 991–1011.
92. Nav Navarro-Drazich, D.; Lorenzo, C. Sensitivity and vulnerability of international tourism by COVID crisis: South America in context. *Res. Glob.* **2021**, *3*, 100042.
93. Chica, M.; Hernández, J.M.; Bulchand-Gidumal, J. A collective risk dilemma for tourism restrictions under the COVID-19 context. *Sci. Rep.* **2021**, *11*, 5043. [\[PubMed\]](#)
94. Saha, J.; Haldar, S.; Bhattacharya, S.; Paul, S. Tourism in retrospect of COVID-19 on global perspective using analytical hierarchy process. *Spat. Inf. Res.* **2021**, *29*, 981–995.
95. Rasoolimanesh, S.M.; Ramakrishna, S.; Hall, C.M.; Esfandiari, K.; Seyfi, S. A systematic scoping review of sustainable tourism indicators in relation to the sustainable development goals. *J. Sustain. Tour.* **2020**, 1–21. [\[CrossRef\]](#)
96. Kala, D.; Bagri, S.C. Barriers to local community participation in tourism development: Evidence from mountainous state Uttarakhand, India. *Tour. Int. Interdiscip. J.* **2018**, *66*, 318–333.
97. Robina-Ramírez, R.; Sánchez, M.S.O.; Jiménez-Naranjo, H.V.; Castro-Serrano, J. Tourism governance during the COVID-19 pandemic crisis: A proposal for a sustainable model to restore the tourism industry. *Environ. Dev. Sustain.* **2021**, 1–22. [\[CrossRef\]](#)
98. Gretzel, U.; Fuchs, M.; Baggio, R.; Hoepken, W.; Law, R.; Neidhardt, J.; Xiang, Z. e-Tourism beyond COVID-19: A call for transformative research. *Inf. Technol. Tour.* **2020**, *22*, 187–203.
99. Melnychenko, S.; Tkachenko, T.; Dupliak, T. Digitalisation as a tool of tourism recovery in European Union in post-COVID-19. *Financ. Credit Act. Probl. Theory Pract.* **2021**, *6*, 427–436.
100. Polukhina, A.; Sheresheva, M.; Efremova, M.; Suranova, O.; Agalakova, O.; Antonov-Ovseenko, A. The Concept of Sustainable Rural Tourism Development in the Face of COVID-19 Crisis: Evidence from Russia. *J. Risk Financ. Manag.* **2021**, *14*, 38.
101. Butcher, J. COVID-19, Tourism and the advocacy of degrowth. *Tour. Recreat. Res.* **2021**, 1–10. [\[CrossRef\]](#)
102. Latouche, S. *Farewell to Growth*; Polity: Cambridge, UK, 2009.
103. Jones, P.; Comfort, D. The COVID-19 crisis, tourism and sustainable development. *Athens J. Tour.* **2020**, *7*, 75–86.
104. Ivona, A.; Rinella, A.; Rinella, F. Glocal Tourism and Resilient Cities: The Case of Matera “European Capital of Culture 2019”. *Sustainability* **2019**, *11*, 4118.

105. Salazar, N.B. Tourism and glocalization “local” tour guiding. *Ann. Tour. Res.* **2005**, *32*, 628–646.
106. Leitão, N.C.; Lorente, D.B. The linkage between economic growth, renewable energy, tourism, CO<sub>2</sub> emissions, and international trade: The evidence for the European Union. *Energies* **2020**, *13*, 4838.
107. Bănescu, C.; Boboc, C.; Ghiță, S.; Vasile, V. Tourism in Digital Era. In Proceedings of the 7th BASIQ International Conference on New Trends in Sustainable Business and Consumption, Foggia, Italy, 3–5 June 2021; Pamfilie, R., Dinu, V., Tăchiciu, L., Pleșea, D., Vasiliu, C., Eds.; ASE: Bucharest, Romania, 2021; pp. 126–134. [[CrossRef](#)]
108. Surugiu, C.; Surugiu, M.; Mazilescu, R. Social Media and Destination Marketing: Today Advancements for Tourism Future. *Manager* **2019**, *29*, 83–90.
109. Vasile, V.; Surugiu, M.R.; Login, I.A. Heritage entrepreneurship and ecotourism. A new vision on ecosystem protection and in-situ specific activities for cultural heritage consumption. *Rev. Romana Econ.* **2016**, *42*, 140–154.
110. Salazar, N.B. Studying local-to-global tourism dynamics through glocal ethnography. In *Fieldwork in Tourism*; Routledge: London, UK, 2010; pp. 191–201.
111. Servon, L.J.; Pink, S. Cittaslow: Going glocal in Spain. *J. Urban Aff.* **2015**, *37*, 327–340.
112. Bom, A.K. When heritage tourism goes glocal—The Little Mermaid in Shanghai. *J. Herit. Tour.* **2012**, *7*, 341–357.
113. Palazzo, M.; Voller, A.; Vitale, P.; Siano, A. Urban and rural destinations on Instagram: Exploring the influencers’ role in #sustainabletourism. *Land Use Policy* **2021**, *100*, 104915.
114. Marinello, S.; Butturi, M.A.; Gamberini, R.; Martini, U. Indicators for sustainable touristic destinations: A critical review. *J. Environ. Plan. Manag.* **2021**, 1–30. [[CrossRef](#)]
115. Pillmayer, M.; Scherle, N.; Volchek, K. Destination Management in Times of Crisis-Potentials of Open Innovation Approach in the Context of COVID-19? In *Information and Communication Technologies in Tourism 2021*; Springer: Cham, Switzerland, 2021; pp. 517–529.
116. Gössling, S.; Higham, J. The low-carbon imperative: Destination management under urgent climate change. *J. Travel Res.* **2021**, *60*, 1167–1179.
117. Markose, N.; Vazhakkatte Tazhathethil, B.; George, B. Sustainability Initiatives for Green Tourism Development: The Case of Wayanad, India. *J. Risk Financ. Manag.* **2022**, *15*, 52.
118. Saseanu, A.S.; Ghita, S.I.; Albastroiu, I.; Stoian, C.A. Aspects of Digitalization and Related Impact on Green Tourism in European Countries. *Information* **2020**, *11*, 507.
119. Claudio, B.; Valeria, S.; Marzia, I. Food and Religion in Sicily—A New Green Tourist Destination by an Ancient Route from the Past. *Sustainability* **2021**, *13*, 6686.
120. Ibnou-Laaroussi, S.; Rjoub, H.; Wong, W.K. Sustainability of green tourism among international tourists and its influence on the achievement of green environment: Evidence from North Cyprus. *Sustainability* **2020**, *12*, 5698.
121. Nassani, A.A.; Yousaf, Z.; Radulescu, M.; Haffar, M. Environmental Performance through Environmental Resources Conservation Efforts: Does Corporate Social Responsibility Authenticity Act as Mediator? *Sustainability* **2022**, *14*, 2330.