

The impact of global crises on international tourism in the Southern and Mediterranean Europe

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Abstract: The global character of international tourism makes this industry vulnerable to the effects of global shocks of an economic or non-economic nature. Crises in international tourism are becoming more frequent. The 2009 Global Economic Crisis and the Covid-19 pandemic are the two biggest crises that have hit the international tourism market in the twenty-first century and have had a global character. This paper aims to examine and compare the impact of these crises on international tourism in the countries of the Southern and Mediterranean Europe by applying the methods of comparative analysis and cluster analysis. The study results indicated the difference in the impact of the observed crises on the international tourist traffic of the analysed countries, as well as the heterogeneity across the countries of the Southern and Mediterranean Europe themselves in terms of the impact of these global crises.

Keywords: international tourism, crisis, arrivals, receipts

JEL classification: Z30, Z32

Uticaj globalnih kriza na međunarodni turizam u Južnoj i Mediteranskoj Evropi

Sažetak: Globalni karakter međunarodnog turizma čini ovu delatnost osetljivom na delovanje globalnih potresa ekonomske ili neekonomske prirode. Krize u međunarodnom turizmu su sve učestalije. Globalna ekonomska kriza 2009. godine i pandemija Covid-19 su dve najveće krize koje su u dvadeset prvom veku pogodile međunarodno turističko tržište i koje su imale globalni karakter. Cilj rada je ispitivanje i poređenje uticaja ovih kriza na međunarodni turizam zemalja Južne i Mediteranske Evrope, primenom metoda komparativne i klaster analize. Rezultati istraživanja ukazali su na razliku u uticaju posmatranih kriza na međunarodni turistički promet zemalja analizirane grupacije, kao i na heterogenost samih zemalja Južne i Mediteranske Evrope u pogledu uticaja ovih globalnih kriza.

Ključne reči: međunarodni turizam, kriza, dolasci, prihodi

JEL klasifikacija: Z30, Z32

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1. Introduction

The dynamic growth of international tourism since the 1950s is periodically interrupted by exceptional events influenced by economic and non-economic factors, such as terrorism, epidemics or natural disasters. Given the increasing global interconnectedness, interdependence, and the resulting increased vulnerability to the effects of crises, globalization has caused crises to take on a global character (Keller & Bieger, 2010). As a global phenomenon, tourism is not immune to the adverse effects of crises. The vulnerability of international tourism is particularly noteworthy. The increasing frequency and variety of causes are the fundamental features of the crisis in international tourism, particularly since the turn of the 21st century.

The growing public awareness of international terrorism, especially after the 9/11 attacks, has significantly increased interest in the crisis-tourism nexus (Blake & Sinclair, 2003), and the ways they affect regional and global tourism demand (Araña & León, 2008). The Global Economic Crisis that spread from the United States of America (USA) to the whole world, bringing it into recession in 2009, aroused the interest of many researchers in studying its impact on tourist flows and their behavior. The effect of the Covid-19 crisis on tourism, which turned into an economic crisis, has also been the focus of research conducted by many authors. The volume of tourist movements between source and destination regions is directly influenced by such catastrophes.

The severe recession, the most intense since World War II, hit the global economy in 2009. The significant decline in world commodity exports and industrial production, the growth of unemployment and the sharp deterioration of consumer confidence in the stability of most countries, which are also the main emitting tourism markets, had a severe adverse effect on the travel and tourism sector (Smeral, 2010). The economic crisis spread from the USA to most world countries in 2008 and 2009, while in certain countries it lasted even longer, and took on the character of a global economic crisis. According to the World Bank (2023), the world's gross domestic product (GDP) declined by 3.41% in 2009, compared to 2008. Even though the roots of the crisis came from one of the world's most significant emitting tourism markets, i.e., the USA, back in 2007, international tourism was most severely impacted by the Global Economic Crisis in 2009, when it was largely of a global nature. Globally, the volume of international tourist arrivals declined by 3.8%, while international tourism receipts decreased by 5.6% in 2009 compared to 2008 (UNWTO, 2011).

Rapidly spreading throughout the economic sphere, the Covid-19 pandemic has affected almost every area of the economy and it caused a crisis that can hardly be compared to any previous one (Đokić, 2021). Economic activities were brought to a halt by rigorous blockade protocols and a lockdown. The tourism industry was one of the hardest hit. Tourism demand has always been highly elastic related to the impact of external variables. However, the tourism industry has historically demonstrated a remarkable capacity for recovery. In the years following the crisis, tourist traffic quickly surpassed or even reached the pre-crisis level. The Covid-19 pandemic, which is still a health concern today, has had the most severe negative repercussions of any crisis that has been identified so far in the modern evolution of tourism. According to the World Bank (2023), the world GDP in 2020 compared to 2019 decreased by 5.7%. In the same period, the number of international tourist arrivals decreased by 72.1%, while international tourism receipts decreased by 62.7% (UNWTO, 2022).

There are numerous academic articles investigating the impact that either the Global Economic Crisis or the Covid-19 have on tourism. However, there are still not enough studies dealing with the comparative analysis of the two mentioned crises on tourism. Furthermore, there have been no significant attempts to conduct a comparative study

between countries. Considering that only these two crises had a global character in recent history, it is understandable to compare the two. This paper is therefore the authors' attempt to address these needs and gaps. The subject of this paper is studying the impact of the Global Economic Crisis and the Covid-19 pandemic on international tourism in the Southern and Mediterranean Europe. The aim of the paper is to examine and compare the impact of these two global crises on international tourism in the countries of the Southern and Mediterranean Europe.

The remaining structure of the paper is as follows. The first part deals with the theoretical background on the effects of the Global Economic Crisis and the Covid-19 crisis on tourism. The methodological framework of the research is given in the second part. The third section, divided into two parts, contains study findings and the discussion. First, a cross-country comparison is conducted using data from two years' number of international tourist arrivals and tourism receipts for both crises (2008 and 2009, and 2019 and 2020) and data on percentage changes of these indicators. The results of the cluster analysis are then presented. The paper ends with the Conclusion.

2. Background

The Global Economic Crisis had strong negative implications for international tourism, and the reasons are all those that reduce tourism activities in the affected areas. Credit constraints activated the liquidity problem and reduced consumption, overall demand, GDP and disposable income also decreased, while unemployment increased. Consequently, the demand for tourism-related services declined. Because international and domestic tourist flows can typically be more affected than the consumption of other goods and services, the tourism industry is extremely susceptible to economic cycles. Therefore, during an economic downturn, luxury consumer spending declines significantly, which directly affects tourist arrivals and destination economies (Eugenio-Martin & Campos-Soria, 2014; Smeral, 2009). Due to its profoundly adverse consequences on the world economy overall and on tourism in particular, the Global Economic Crisis that began in the USA in 2007 was the one that received the most attention in academic public (Page et al., 2012; Smeral, 2009; Smeral, 2010; Song & Lin, 2010).

The tourism industry was significantly impacted by the decline in economic activity. Employees started to postpone, change, or cancel their travel plans because of possible layoffs and more stringent financing requirements, which considerably reduced travel budgets. Fears of recession, rising oil prices, rising inflation, and a decline in foreign demand for tourism services in the destinations led to a further decline in travel (UNWTO & ILO, 2011). Individual disposable income and consequently overall consumption were both significantly impacted by the slowdown in economic activity. Due to its high-income elasticity in these conditions, tourism consumption is especially susceptible to decisions to reduce consumption (Lanza et al., 2003; Smeral, 2012). As a result, fewer people were traveling abroad from the affected countries, significantly reducing the number of arrivals to tourist destinations (Page et al., 2012; Papatheodorou et al., 2010).

The Global Economic Crisis influenced the tourism industry by lowering sales, decreasing tourist consumption (Hociung & Francu, 2012), and altering travel behaviors. The distance and the length of travel were reduced and cheaper types of accommodation were chosen (Bronner & Hug, 2012). The crisis also resulted in travel plans being changed and canceled by tourist consumers, considerably cutting back on their travel expenses. Fear of a recession, coupled with high oil prices and growing inflation rates, resulted in further reductions in travel budgets. This has limited the international demand for tourism services. Along with fewer visitors in hotels, restaurants, and congress centers, etc., the crisis also caused a large decline in the average amount spent by each visitor (Pizam, 2009).

There are differences in how tourists are responding to the economic downturn. Some people are still interested in traveling despite the crisis, while others are unwilling to do so and would rather save money by minimizing travel expenses (Eugenio-Martin & Campos-Soria, 2014). When the crisis is of global proportions and of great intensity, more people belong to the second group. Apart from the change in tourism expenditure depending on the disposable income level, it is interesting to note that, in times of crisis, households in bad-climate regions are less inclined to reduce consumption compared to those in good-climate regions. The Global Economic Crisis undoubtedly results in a decline in foreign travel, but depending on the nation, it may also present new prospects for domestic travel by enhancing its comparative competitiveness with other locations due to new financial constraints. This can benefit the economy in terms of employment and production, minimizing leaks that can occur during a crisis (Sheldon & Dwier, 2010). However, not all regions have experienced the same change in the tourist destination. Eugenio-Martin and Campos-Soria (2014) have shown that locations with favorable climates shift between domestic and foreign tourism more frequently, whereas this is not true for countries with unfavorable climates.

The crisis caused by the Covid-19 pandemic hit the world in 2020, with the first cases of recorded in China towards the end of 2019. The pandemic negatively affected practically every economic sector, but tourism was one of the most affected due to a specificity of the crisis, as well as tourism itself as an economic activity. The coronavirus pandemic has had the substantial impact on tourism, like no other event in the history (Sigala, 2020). This especially applies to international tourism. The pandemic was accompanied by the closure of the state borders, the restriction of people's freedom of movement, and the introduction of specific restrictions, or even closure of hotels, restaurants and other tourist-oriented facilities. According to the World Tourism Organization (UNWTO, 2020), 96% of tourism destinations worldwide imposed travel restrictions, and fully or partially closed their borders to tourists. Tourists, fearing for their safety and security, canceled trips themselves or substituted for domestic ones (Stanišić et al., 2022). Although the tourism industry was considered to have remarkable resilience and the ability to respond to unexpected or unforeseen events and recover quickly, the Covid-19 pandemic has severely stressed the industry (Romagosa, 2020).

Research has shown that international tourism can contribute to the spread of the pandemic. Travel increases the risk of airborne infection (Su et al., 2021), and tourists contribute significantly to the spread of viruses between destinations (Hollingsworth et al., 2006; Zhong et al., 2021). Farzanegan et al. (2020) proved that countries with more developed international tourism and a larger number of international tourists also have a higher rate of infection with the Covid-19 virus. Pandemics negatively affect tourist behavior and mental well-being (Park et al., 2019) regarding personal safety, trust, and consumption (Chebli & Ben Said, 2020). Due to the fear of contagion in hotels and restaurants (Gajić et al., 2022), and the inability to prevent virus spread while traveling (Meadows et al., 2019), many tourists canceled their trips, which led to significant financial losses for the hotel and tourism industry (Kumar & Nafi, 2020).

Numerous countries depend heavily on tourism for their economic prosperity, and the rapid spread of Covid-19 has had negative repercussions on it (Estrada et al., 2020). Due to their heavy reliance on foreign tourists, which makes them more vulnerable, major receptive tourist destinations are particularly exposed to the crisis' effects (Nicola et al., 2020; Robina-Ramirez et al., 2021). The virus's spread has prompted alarm among tourists and the broader tourism industry. Thereafter, travel plans were canceled and postponed worldwide. The data of the International Air Transport Association (IATA, 2020) indicate that the Covid-19 pandemic was expected to cause a reduction in worldwide air transport revenues of 29.3 billion US dollars in 2020. This expected decrease was the first of that level since the Global

Economic Crisis in 2009 and carriers from the Asia-Pacific area accounted for nearly 95% of the anticipated loss (Folinas & Metaxas, 2020). The situation was unprecedented. Places that only a few months ago suffered from excessive tourism (Dodds & Butler, 2019; Seraphin et al., 2018) became eerily peaceful (Milano et al., 2019). Most events of all types were postponed or canceled, while museums, hotels, and restaurants were closed. The economic effects have undoubtedly been catastrophic, particularly for travel destinations or even nations that largely rely on tourism (Ioannides & Gyimóthy, 2020).

The literature offers examples of papers that analyse the effect of the Covid-19 crisis on tourism using cluster analysis. Using the number of overnight stays in tourist destinations, Vărzaru et al. (2021) classified the European Union member states into clusters according on how the Covid-19 crisis affected the tourism. The cluster analysis led to the conclusion that travel restrictions and a general decline in travel during the pandemic had resulted in an exceptional drop in tourism, particularly in the countries most severely hit by the Covid-19 pandemic. The effect of the Covid-19 crisis on the economic indicators of tourism (contribution to GDP and employment) in the CESEE countries was examined by Stanišić et al. (2022). Using cluster analysis, the authors found that countries with higher tourism-related economic importance are more impacted by the pandemic crisis.

to the scholarly literature not only examines how the pandemic has affected consumer behavior, tourism development indicators, and tourism businesses, focusing on the delicate nature of the hotel and air transport industries, but also pays special attention to the fact that “the new circumstances represent both a challenge and an opportunity for significant changes in tourism and the establishment of a particular new, more desirable paradigm of development” (Stanišić et al., 2022, p. 157). Almost all tourist organizations define tourism success as an increase in the number of visitors. This paradigm has already been criticized in light of the Global Economic Crisis (Hall, 2009) and as the difficulties caused by overtourism, climate change, and the Covid-19 crisis have further demonstrated, this viewpoint is out of date. The Covid-19 pandemic can be seen as a chance to rethink the global model of tourism volume growth and to doubt the logic of the statement that more arrivals equal more advantages (Gössling et al., 2020). Fletcher et al. (2020) imply that despite the proclamation that the Covid-19 outbreak is over, the world does not permit tourism to resume its old levels and patterns. Excessive mass tourism harms the ecosystem by polluting the environment and depleting its resources. Despite the uncertainty generated by “the health and economic crisis in the tourism sector, one of the key effects is the consolidation of local tourism, particularly domestic tourism” (Vărzaru et al., 2021, p. 4). That is why it is important to emphasize that the Covid-19 crisis provides a chance to consider the way of tourism’s further development, with the necessity to place that development on a more sustainable basis, while minimizing its negative impacts.

3. Materials and methods

In view of the previously defined subject and aim of the research, the following hypotheses are set:

- There is a difference in the impacts of the Global Economic Crisis and Covid-19 pandemic on the international tourism of the Southern and Mediterranean Europe.
- The countries of the Southern and Mediterranean Europe are heterogeneous in terms of the impact of the Global Economic Crisis, as well as in terms of the impact of the Covid-19 pandemic on the results achieved in international tourism.

The methods used in the research are comparative analysis and cluster analysis. The former primarily aims, first of all, to identify the countries that achieve relatively significant results concerning international tourist traffic, and those with relatively modest results. In addition,

the comparative analysis enabled an overview of the impact intensity of the observed crises in individual countries belonging to the two groups. The cluster analysis enabled the formation of subgroups of countries within the two analysed group by taking into account the impact of the aforementioned crises on the two observed variables, i.e. by taking into account the percentage changes in the international tourist arrivals and the percentage changes in the international tourism receipts in the years with the most intensive impact of the observed crises compared to the previous year (2009/2008 and 2020/2019).

The sources of data on international tourist arrivals and international tourism receipts are the relevant reports of the World Tourism Organization (UNWTO, 2011; UNWTO, 2022). The classification of countries within the Southern and Mediterranean Europe is also done in the same way as the World Tourism Organization does in its official reports. This resulted in Israel being included in the analysis. There are a total of 17 countries within this group. In this study, 15 out of 17 countries of the Southern and Mediterranean Europe are included in the analysis. Andorra and San Marino were omitted from the research because of the lack of data on the analysed variables in certain years.

4. Results and discussion

a) Cross-country comparison

The data on international tourist arrivals in the countries of the Southern and Mediterranean Europe in selected years, as well as the percentage change in this indicator in the year of the most intense effect of the observed crisis compared to the previous year, are shown in Table 1. The absolute data on international tourist arrivals enables an assessment of the role and significance of international tourism for the analysed countries of the Southern and Mediterranean Europe, while the percentage change of the observed variable enables an assessment of the intensity of the crisis in the selected countries.

Table 1: International tourist arrivals in the Southern and Mediterranean Europe

Country	International tourist arrivals (in thousands)					
	2008	2009	09/08 (%)	2019	2020	20/19 (%)
Albania	1,330	1,775	33.5	5,919	2,521	-57.4
Bosnia and Herzegovina	322	311	-3.4	1,198	197	-83.6
Croatia	9,415	9,335	-0.9	17,353	5,545	-68.0
Cyprus	2,404	2,141	-10.9	3,977	632	-84.1
Greece	15,939	14,915	-6.4	31,348	7,374	-76.5
Israel	2,572	2,321	-9.8	4,552	831	-81.7
Italy	42,734	43,239	1.2	64,513	25,190	-61.0
Malta	1,291	1,182	-8.4	2,753	659	-76.1
Montenegro	1,031	1,044	1.3	2,510	351	-86.0
North Macedonia	255	259	1.6	758	118	-84.4
Portugal	6,962	6,439	-7.5	24,600	6,480	-73.7
Serbia	646	645	-0.2	1,847	446	-75.9
Slovenia	1,940	1,803	-7.0	4,702	1,216	-74.1
Spain	57,192	52,178	-8.8	83,509	18,933	-77.3
Turkey	24,994	25,506	2.0	51,192	15,894	-69.0
<i>Average</i>	<i>11,268</i>	<i>10,873</i>	<i>/</i>	<i>20,049</i>	<i>5,759</i>	<i>/</i>

Source: UNWTO, 2011; UNWTO, 2022

In the first observed period (the period of Global Economic Crisis), Spain, Italy, Turkey and Greece can be singled out as countries of great importance for international tourism, i.e. with a number of international tourist arrivals that is higher than the average recorded in the Southern and Mediterranean Europe. North Macedonia, Bosnia and Herzegovina and Serbia can be singled out as countries with the lowest number of international tourist arrivals. This applies to both observed years (2008 and 2009). The greatest intensity of the impact of the Global Economic Crisis was recorded in Cyprus (10.9% decrease in international tourist arrivals), while Albania was the country with the largest positive change in this indicator in 2009 compared to 2008 (increase of 33.5%). In the year before the Covid-19 pandemic (2019), Spain, Italy, Greece, Turkey and Portugal were the most important tourist countries in the Southern and Mediterranean Europe, with the number of international tourist arrivals higher than the group average. North Macedonia and Bosnia and Herzegovina were the countries that recorded the lowest number of the international tourist arrivals in 2019. This ranking is also valid for 2020. Montenegro was the country with the largest and Albania was the country with the smallest percentage decrease in the number of the international tourist arrivals in 2020 in comparison to 2019. Table 2 shows the data on international tourism receipts in the observed years, as well as their percentage change in the year of the most intense effect of the observed crisis compared to the previous year.

Table 2: International tourism receipts in the Southern and Mediterranean Europe

Country	International tourism receipts (in USD million)					
	2008	2009	09/08(%)	2019	2020	20/19 (%)
Albania	1,720	1,816	5.6	2,332	1,129	-51.6
Bosnia and Herzegovina	913	753	-17.5	1,175	431	-63.3
Croatia	10,971	8,898	-18.9	11,753	5,569	-52.6
Cyprus	2,737	2,162	-21.0	3,260	728	-77.7
Greece	17,114	14,506	-15.2	20,351	4,933	-75.8
Israel	4,279	3,741	-12.6	7,620	2,500	-67.2
Italy	45,727	40,249	-12.0	49,596	19,797	-60.1
Malta	950	881	-7.3	1,901	392	-79.4
Montenegro	859	792	-7.8	1,230	165	-86.6
North Macedonia	262	232	-11.5	396	252	-36.4
Portugal	10,943	9,635	-12.0	20,477	8,814	-57.0
Serbia	1,114	986	-11.5	1,606	1,249	-22.2
Slovenia	2,820	2,511	-11.0	3,183	1,413	-55.6
Spain	61,628	53,177	-13.7	79,670	18,507	-76.8
Turkey	21,951	21,250	-3.2	34,305	13,330	-61.1
<i>Average</i>	<i>12,266</i>	<i>10,773</i>	<i>/</i>	<i>15,924</i>	<i>5,281</i>	<i>/</i>

Source: UNWTO, 2011; UNWTO, 2022

The countries that recorded a higher amount of receipts from international tourism than the group average in 2008 were Spain, Italy, Turkey and Greece. North Macedonia had the smallest amount of international tourism receipts in this year. This situation was also recorded in 2009. The greatest negative impact of the Global Economic Crisis on international tourism receipts was recorded in Cyprus (a decrease of 21.0%), while Albania was the only country with a positive change in this indicator in 2009 compared to 2008 (an increase of 5.6%). Spain, Italy, Turkey, Greece and Portugal were the countries that recorded a higher amount of international tourism receipts than the group average in 2019, while the lowest amount was recorded in North Macedonia. The Covid-19 pandemic, unlike the period

of the Global Economic Crisis, brought certain changes in this ranking of countries in 2020. The countries with the value of international tourism receipts higher than the average in 2020 were Croatia, Italy, Portugal, Greece, Turkey and Spain, while Montenegro was the country with the smallest amount. The greatest negative impact of the Covid-19 pandemic on international tourism receipts in 2020 in comparison to 2019 was recorded in Montenegro (-86.6%), and the least negative impact was recorded in Serbia (-22.2%).

b) Cluster analysis

For the classification of the countries of the Southern and Mediterranean Europe by the intensity of the impact of the observed crises, a cluster analysis is performed. The classification of countries is carried out separately according to the variables through which the impact of the Global Economic Crisis on the international tourism of the observed countries was assessed (percentage changes of international tourist arrivals and international tourism receipts 2009 compared to 2008) and according to the variables through which the impact of the Covid-19 crisis on international tourism of the observed countries was assessed (percentage changes of international tourist arrivals and international tourism receipts 2020 compared to 2019). The countries of the Southern and Mediterranean Europe are grouped into three clusters in both observed periods. The final cluster centers are shown in Table 3.

Table 3: Final cluster centres

Global Economic Crisis				Covid-19			
Variables	Cluster			Variables	Cluster		
	1	2	3		1	2	3
ITA [08/09(%)]	33.50	1.18	-7.01	ITA [20/19(%)]	-67.20	-80.15	-80.76
ITR [08/09(%)]	5.60	-9.20	-14.36	ITR [20/19(%)]	-56.33	-29.30	-75.26

Legend: ITA – international tourist arrivals; ITR – international tourism receipts

Source: Authors' research

Taking into account the clusters singled out for the first period (the period of the Global Economic Crisis), cluster 1 may be characterized as the cluster with the best results. The country/countries belonging to this cluster did not record a decrease in the international tourist arrivals and international tourism receipts under the influence of the Global Economic Crisis. Cluster 2 is a cluster of medium performance, with a still positive growth rate in the international tourist arrivals and a negative growth rate in the international tourism receipts. Cluster 3 may be characterized as the lowest performing cluster, with a negative value of both observed variables. When it comes to the clusters formed for the second period (Covid-19 pandemic period), the situation is specific. Namely, cluster 3 is also the cluster with the worst performance. However, it is not possible to clearly separate the cluster with the best and medium performance. The countries in cluster 1 are the countries with the lowest negative impact of the Covid-19 pandemic on international tourist arrivals and the medium intensity of the negative impact of the Covid-19 pandemic on international tourism receipts. The countries in cluster 2 are the countries with the least negative impact of the Covid-19 pandemic on international tourism receipts and the medium intensity of the negative impact of the Covid-19 pandemic on international tourist arrivals. The membership of the countries in the selected clusters for both observed periods is presented in Table 4.

Table 4: Cluster membership

Global Economic Crisis		Covid-19	
Cluster	Cluster membership	Cluster	Cluster membership
1	Albania	1	Albania, Croatia, Italy, Portugal, Slovenia, Turkey
2	Italy, Montenegro, North Macedonia, Serbia, Turkey	2	North Macedonia, Serbia
3	Bosnia and Herzegovina, Croatia, Cyprus, Greece, Israel, Malta, Portugal, Slovenia, Spain	3	Bosnia and Herzegovina, Cyprus, Greece, Israel, Malta, Montenegro, Spain

Source: Authors' research

Bearing in mind the membership of countries in defined clusters, Albania may be singled out as the country which, in terms of the impact of both observed crises, is in the cluster with the best performance. Bosnia and Herzegovina, Cyprus, Greece, Israel, Malta and Spain are the countries that are in the third cluster, the cluster with the lowermost results in both the observed periods. Namely, these are the countries of the Southern and Mediterranean Europe where the greatest negative impact of both observed crises on international tourism was recorded. Taking these results and the results of the conducted cross-country comparison into account, it can be concluded that the first initial hypothesis has been proven. There is a difference in the impacts of the Global Economic Crisis and the Covid-19 pandemic on the international tourism of the Southern and Mediterranean Europe. This difference is not only evident in the intensity of the impact of these crises, but is also reflected in the fact that individual countries were affected differently by the observed crises. Thus, regarding the impact of the Global Economic Crisis on international tourism, Croatia, Portugal and Slovenia are in cluster 3 (which is characterized as the cluster with the lowermost results in both periods), while these countries are located in cluster 1 when it comes to the impact of the Covid-19 pandemic on international tourism.

The statistical significance of the differences between the formed clusters with regard to each variable separately has been tested using an analysis of variance. The results of the testing are shown in Table 5.

Table 5: Analysis of variance

		Sum of Squares	df	Mean Square	F	Sig.
ITA [08/09(%)]	Between Groups	1534.167	2	767.084	112.535	0.000
	Within Groups	81.797	12	6.816		
	Total	1615.964	14			
ITR [08/09(%)]	Between Groups	391.687	2	195.844	11.641	0.002
	Within Groups	201.882	12	16.824		
	Total	593.569	14			
ITA [20/19(%)]	Between Groups	649.135	2	324.568	10.708	0.002
	Within Groups	363.742	12	30.312		
	Total	1012.877	14			
ITR [20/19(%)]	Between Groups	3558.606	2	1779.303	39.731	0.000
	Within Groups	537.410	12	44.784		
	Total	4096.016	14			

Legend: ITA – international tourist arrivals; ITR – international tourism receipts

Source: Authors' research

The results of the analysis of variance confirm the existence of a statistically significant difference between the formed clusters. This fact is valid for the formed clusters of countries in both observed periods and considering all variables. In this way, the second research hypothesis has been proven. The countries of the Southern and Mediterranean Europe are heterogeneous regarding the impact of the Global Economic Crisis, as well as regarding the impact of the Covid-19 pandemic on the results achieved in international tourism. This heterogeneity is manifested both in terms of the impact of observed crises on international tourist arrivals, and considering their impact on international tourism receipts.

5. Conclusion

History has repeatedly shown that crises arising out of health diseases, natural disasters, economic downturns or terrorist attacks have had an instant damaging impact on tourism activity, due to its high vulnerability to crises situations. While localized crises do not have a serious impact on global travel, the spread of any economic crisis or infectious disease around the world is sure to have catastrophic consequences for the tourism industry. This is evident from the way in which the Global Economic Crisis led to a decline in tourist movements around the world, and even more pronounced in the case of the Covid-19 crisis, which led to an almost complete cessation of international tourism results. Taking the above into account, the aim of the study was to examine and compare the effect of these two global crises on international tourism results. Additionally, the goal was, using cluster analysis, to group the countries of the Southern and Mediterranean Europe based on how strongly crises affected tourist arrivals and tourism receipts.

The research results showed that there are differences in the impact that the observed crises had on the international tourism of the Southern and Mediterranean Europe, as well as that these differences are not only reflected in the different intensities of the impact of the crises. On the one hand, it is possible to single out the country that is in the cluster with the best performance in terms of the impact of both observed crises (Albania) or countries that were extremely negatively affected by both crises (such as Bosnia and Herzegovina, Cyprus, Greece, Israel, Malta and Spain). On the other hand, for the remaining countries of the Southern and Mediterranean Europe, no such clear conclusions can be drawn about the impact of the two observed crises. The second conclusion relates to the fact that the countries of the Southern and Mediterranean Europe are heterogeneous regarding the impact of the observed crises on international tourism. In addition to this heterogeneity, the very heterogeneous structure of the observed clusters should be mentioned. Namely, individual clusters are not formed from countries whose tourism has some generally similar characteristics, for example, only from countries that are leaders in the global tourism market, or only from countries that rely heavily on tourism in their development, or only from countries in which tourism has no special significance. All this points to the difficulty of predicting the impact of crises on the countries' tourism of, regardless of the type of crisis.

The study has attempted to contribute to the existing literature and academic discussion on the negative effects of the Global Economic Crisis and the Covid-19 crisis on tourism by comparing the two. When it comes to practical implications, some significance of the results for the tourism policy makers of individual countries can be found by highlighting those countries where the crisis's detrimental effects on the analysed indicators were substantially less severe. The limitation of the paper can be reflected in the sample of countries characterized by high heterogeneity. Namely, the Southern and Mediterranean Europe consists of very different countries, both in terms of the achieved level of economic development, and in terms of the role and importance of international tourism for their overall development. In this sense, future research can be focused on comparing the impact

of observed crises on international tourism of countries with similar economic and tourist performances. In addition, there are various crises in many regions of the world today, such as war conflicts, etc., so the impact of new crises on international tourism in the Southern and Mediterranean Europe, as well as in other countries around the world, should be continuously researched, following all current global and other relevant events and challenges.

Conflict of interest

The authors declare no conflict of interest.

References

1. Araña, J. E., & León, C. J. (2008). The impact of terrorism on tourism demand. *Annals of tourism research*, 35(2), 299–315. <https://doi.org/10.1016/j.annals.2007.08.003>
2. Blake, A., & Sinclair, M.T. (2003). Tourism crisis management: US response to September 11. *Annals of Tourism Research*, 30(4), 813–833. [https://doi.org/10.1016/S0160-7383\(03\)00056-2](https://doi.org/10.1016/S0160-7383(03)00056-2)
3. Bronner, F., & Hoog, R. (2012). Economizing strategies during an economic crisis. *Annals of Tourism Research*, 39(2), 1048–1069. <https://doi.org/10.1016/j.annals.2011.11.019>
4. Chebli, A., & Ben Said, F. (2020). The impact of Covid-19 on tourist consumption behaviour: A perspective article. *Journal of Tourism Management Research*, 7(2), 196–207. <https://doi.org/10.18488/journal.31.2020.72.196.207>
5. Dodds, R., & Butler, R. (Eds.). (2019). *Overtourism: Issues, realities and solutions*. De Gruyter.
6. Đokić, M. (2022). World economy in the time of pandemic: Consequences of COVID-19 on world output, trade and employment. *Economics of Sustainable Development*, 6(1), 57–72. <https://doi.org/10.5937/ESD2201057D>
7. Estrada, M., Park, D., & Lee, M. (2020). *How a massive contagious infectious diseases can affect tourism, international trade, air transportation, and electricity consumption? The case of 2019 novel coronavirus (2019-nCoV)*. Retrieved August 15, 2023 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3540667
8. Eugenio-Martin, J. L., & Campos-Soria, J. A. (2014). Economic crisis and tourism expenditure cutback decision. *Annals of Tourism Research*, 44, 53–73. <https://doi.org/10.1016/j.annals.2013.08.013>
9. Farzanegan, M. R., Gholipour, H. F., Feizi, M., Nunkoo, R., & Eslami Andargoli, A. (2020). International tourism and outbreak of coronavirus (COVID-19): A cross-country analysis. *Journal of Travel Research*, 60(3), 687–692. <https://doi.org/10.1177/0047287520931593>
10. Fletcher, R., Murray, I., Blázquez-Salom, M., & Asunción, B. R. (2020). Tourism, degrowth, and the COVID-19 Crisis. *Political Ecology Network*, 24.
11. Folinas, S., & Metaxas, T. (2020). Tourism: The great patient of coronavirus COVID-2019. *Munich Personal RePEc Archive (MPRA)*, 99666. Retrieved August 15, 2020, from https://mpra.ub.uni-muenchen.de/99666/1/MPRA_paper_99666.pdf
12. Gajić, T., Penić, M., & Vukolić, D. (2022). The impact of fear of COVID-19 infection on consumers' intention to visit restaurants. *Hotel and Tourism Management*, 10(1), 67–78. <https://doi.org/10.5937/menhottur2201067G>
13. Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: A rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1–20. <https://doi.org/10.1080/09669582.2020.1758708>

14. Hall, C. M. (2009). Degrowing tourism: Décroissance, sustainable consumption and steady-state tourism. *Anatolia*, 20(1), 46–61. <https://doi.org/10.1080/13032917.2009.10518894>
15. Hociung, I. G., & Francu, L. G. (2012). Globalization-tourism-communication, triangle of competitiveness on the market affected by economic crisis. *Theoretical and Applied Economics*, 7(572), 133–146.
16. Hollingsworth, T. D., Ferguson, N. M., & Anderson, R. M. (2006). Will travel restrictions control the international spread of pandemic influenza? *Nature Medicine*, 12(5), 497–499. <https://doi.org/10.1038/nm0506-497>
17. IATA (2020). *Airlines financial monitor, January-February 2020*. Retrieved August 15, 2023, from <https://www.iata.org/en/iata-repository/publications/economic-reports/airlines-financial-monitor---feb-2020/>
18. Ioannides, D., & Gyimóthy, S. (2020). The COVID-19 crisis as an opportunity for escaping the unsustainable global tourism path. *Tourism Geographies*, 22(3), 624–632. <https://doi.org/10.1080/14616688.2020.1763445>
19. Keller, P., & Bieger, T. (2010). *Tourism development after the crises*. Berlin: Erich Schmidt Verlag.
20. Kumar, S., & Nafi, S. M. (2020). Impact of COVID-19 pandemic on tourism: Perceptions from Bangladesh. *SSRN Electronic Journal*. <http://dx.doi.org/10.2139/ssrn.3632798>
21. Lanza, A., Temple, P., & Urga, G. (2003). The implications of tourism specialisation in the long run: An econometric analysis for the 13 OECD economies. *Tourism Management*, 24(3), 315–321. [https://doi.org/10.1016/S0261-5177\(02\)00065-1](https://doi.org/10.1016/S0261-5177(02)00065-1)
22. Meadows, C. W., Meadows, C. Z., Tang, L., & Liu, W. (2019). Unraveling public health crises across stages: Understanding Twitter emotions and message types during the California measles outbreak. *Communication Studies*, 70(4), 453-469. <https://doi.org/10.1080/10510974.2019.1582546>
23. Milano, C., Cheer, J. M., & Novelli, M. (Eds.). (2019). *Overtourism: Excesses, discontents and measures in travel and tourism*. Cabi
24. Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Jabir, A.A., Iosifidis, C., ... & Agha, R. (2020). The socio-economic implications of the coronavirus pandemic (COVID-19): A review. *International Journal of Surgery*, 78, 185–193. <https://doi.org/10.1016/j.ijssu.2020.04.018>
25. Page, S., Song, H., & Wu, D.C. (2012). Assessing the impacts of the global economic crisis and swine flu on inbound tourism demand in the United Kingdom. *Journal of Travel Research*, 51(2), 142–153. <https://doi.org/10.1177/0047287511400754>
26. Papatheodorou, A., Rosselló, J., & Xiao, H. (2010). Global economic crisis and tourism: Consequences and perspectives. *Journal of Travel Research*, 49(1), 39–45. <https://doi.org/10.1177/0047287509355>
27. Park, S., Boatwright, B., & Avery, E. J. (2019). Information channel preference in health crisis: Exploring the roles of perceived risk, preparedness, knowledge, and intent to follow directives. *Public Relations Review*, 45(5), 101794. <https://doi.org/10.1016/j.pubrev.2019.05.015>
28. Pizam, A. (2009). The global financial crisis and its impact on the hospitality industry. *International Journal of Hospitality Management*, 28(3), 301. <https://doi.org/10.1016/j.ijhm.2009.03.012>
29. Robina-Ramirez, R., Medina-Merodio, J. A., Moreno-Luna, L., Jimenez-Naranjo, H. V., & Sánchez-Oro, M. (2021). Safety and health measures for COVID-19 transition period in the hotel industry in Spain. *International Journal of Environmental Research and Public Health*, 18(2), 718. <https://doi.org/10.3390/ijerph18020718>

30. Romagosa, F. (2020). The COVID-19 crisis: Opportunities for sustainable and proximity tourism. *Tourism Geographies*, 22(3), 690–694. <https://doi.org/10.1080/14616688.2020.1763447>
31. Seraphin, H., Sheeran, P., & Pilato, M. (2018). Over-tourism and the fall of Venice as a destination. *Journal of Destination Marketing & Management*, 9, 374–376. <https://doi.org/10.1016/j.jdmm.2018.01.011>
32. Sheldon, P., & Dwyer, L. (2010). The global financial crisis and tourism: Perspectives of the academy. *Journal of Travel Research*, 49(1), 3–4. <https://doi.org/10.1177/0047287509353191>
33. Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research*, 117, 312–321. <https://doi.org/10.1016/j.jbusres.2020.06.015>
34. Smeral, E. (2009). The Impact of the financial and economic crisis on European tourism. *Journal of Travel Research*, 48(1), 3–13. <https://doi.org/10.1177/0047287509336332>
35. Smeral, E. (2010). Impacts of the world recession and economic crisis on tourism: Forecasts and potential risks. *Journal of Travel Research*, 49(1), 31–38. <https://doi.org/10.1177/0047287509353192>
36. Smeral, E. (2012). International tourism demand and the business cycle. *Annals of Tourism Research*, 39(1), 379–400. <https://doi.org/10.1016/j.annals.2011.07.015>
37. Song, H., & Lin, S. (2010). Impacts of financial and economic crisis on tourism in Asia. *Journal of Travel Research*, 49(1), 16–30. <https://doi.org/10.1177/0047287509353190>
38. Stanišić, T., Leković, M., & Milutinović, S. (2022). Impact of the Covid-19 pandemic on the economic effects of tourism in Central, Eastern and Southeastern Europe (CESEE) countries. *Facta Universitatis, Series: Economics and Organization*, 19(2), 155–166. <https://doi.org/10.22190/FUEO220511012S>
39. Su, Z., McDonnell, D., Wen, J., Kozak, M., Abbas, J., Šegalo, S., ... & Xiang, Y. T. (2021). Mental health consequences of COVID-19 media coverage: The need for effective crisis communication practices. *Globalization and Health*, 17(1), 1–8. <https://doi.org/10.1186/s12992-020-00654-4>
40. The World Bank (2023). *DataBank – World Development Indicators*. Washington: IBRD.
41. UNWTO & ILO (2011). *Economic crisis, international tourism decline and its impact on the poor. An analysis of the effects of the global economic crisis on the employment of poor and vulnerable groups in the tourism sector*. Madrid: UNWTO and Geneva: ILO.
42. UNWTO (2011). *Tourism Highlights 2011 Edition*. Madrid: UNWTO.
43. UNWTO (2020). *Impact assessment of the Covid-19 outbreak on international tourism*. Retrieved August 15, 2023 from <https://www.unwto.org/impact-assessment-of-the-covid-19-outbreak-on-international-tourism>
44. UNWTO (2022). *World Tourism Barometer, Statistical Annex*, 20(6). Madrid: UNWTO.
45. Vărzaru, A. A., Bocean, C. G., & Cazacu, M. (2021). Rethinking tourism industry in pandemic COVID-19 period. *Sustainability*, 13(12), 6956. <https://doi.org/10.3390/su13126956>
46. Zhong, B., Huang, Y., & Liu, Q. (2021). Mental health toll from the coronavirus: Social media usage reveals Wuhan residents' depression and secondary trauma in the COVID-19 outbreak. *Computers in human behavior*, 114, 106524. <https://doi.org/10.1016/j.chb.2020.106524>