# Determinants of Tourism Demand in Selected EU Med Countries: Empirical Panel Analysis

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**Abstract**
Due to its significant contribution to the prosperity and growth of economies, the tourism industry has always been the one that attracted the attention of many practitioners and researchers who have tried in different ways and from different aspects to identify the key variables that determine tourism demand. The importance of tourism is especially evident in the group of countries included in the EUrope Mediterranean (EU Med) alliance. Considering the importance and role of tourism, the main objective of this research is to examine the influence of different factors on tourism demand for selected eight countries from EU Med alliance during the period 2010-2020 with the application of a dynamic panel data model. The variables encompassed in the model, i.e., income and trade, show a statistically significant positive influence on tourist arrivals in eight countries from EU Med alliance. The results of the empirical research confirmed the positive impact of previous demand on current demand as well as its statistical significance. On the other hand, we also found that terrorism and Covid-19 negatively impact tourist demand. These results imply that for any country in the eight countries from EU Med alliance to attract more arrivals of tourists, it should invest significantly in the tourism sector in terms of upgrading tourism infrastructure, increasing trade openness and promoting a peaceful reputation and safe country.

## 1. Introduction

Tourism has become one of the most significant socio-economic phenomena in the last hundred years, from activities available only to small groups of wealthy people in the first half of the 20th century to mass after World War II, especially since 1970. Moreover, the tourism industry has been one of the most profitable sectors of economies (Shpak et al., 2022); therefore, it has made significant contributions to the income and GDP of countries (Štefko et al., 2020). Furthermore, Ribeiro and Wang (2020) confirm that tourism is an engine that leads the economic growth; thus, this

topic attracts researchers from around the world. The explanation of the causes (factors) of this accelerated growth of tourism is analyzed by (Amelung & Viner, 2006).

According to this, demographics (e.g., population growth and migration flows), culture (e.g., leisure, fashion, hedonism), economy (e.g., disposable income), technology (e.g., ICT, high-speed transport) have played a key role. system), environment (e.g., nature and climate), and institutions and policies (e.g., liberalization, world tour operators). Tourist demand is the foundation on which all business decisions related to tourism are based. Companies such as airlines, tour operators, hotels, cruise companies, and many recreational service providers, but also shop owners, are interested in tourists' demand for their products. The success of many firms depends largely or entirely on the state of tourism demand, while ultimate business failures are often the result of failure to meet market demand (Song et al., 2009).

Along with the global phenomenon of growing demand for tourism over the last decades, scientific research interest in the field of tourism has also grown. One of the most important areas of research work in tourism is modeling and forecasting tourism demand, in which both academics and practitioners are equally interested (Song & Li, 2008).

The economic impact of tourism flows on economies is often significant and acts as a driver of economic growth in small communities and large countries. The tourism sector plays an important role in contributing to each country's economy and, thus, its competitiveness among other countries (Gavurova et al., 2021).

In order to improve the effects of tourism, it is in the interest of the private sector, the authorities themselves, and policymakers to find appropriate analytical models (Brida & Scuderi, 2013).

In general, the factors influencing tourism demand can be divided into motivators and determinants. While motivation deals with psychological factors and questions about why people travel and what needs they try to meet, determinants affect demand. Factors affecting tourism demand can be economic, sociological, demographic, political, geographical, etc. (Fletcher et al., 2018).

Tourism demand is the problem of numerous studies that seek to identify its key determinants and their impact, all with the aim of better understanding and managing tourism as an economic driver. International tourist demand is most often measured in terms of the number of tourist arrivals from the emitting country to the receptive country, in terms of tourist consumption by visitors to the destination or in terms of the number of overnight stays of tourists from the country of origin in the destination. Among the explanatory variables, the population and income of the emitting country, intra-destination prices, substitute prices, tastes, marketing, expectations and persistence of habits, and various qualitative effects that appear in the models in the form of dummy variables (Song, Witt and Li, 2009). In recent years, numerous studies have been conducted in the field of modeling and forecasting tourism demand. However, tourism demand models differ greatly in terms of selected dependent and independent variables, observed periods and data, empirical methodologies, and pairs of emitting and receptive countries (Dogru, Sirakaya-Turk & Crouch, 2017). More and more authors, in addition to traditional demand variables, are introducing specific regressors as determinants of tourism demand to adapt the models to their research goals. Some studies have focused on specific forms of tourism, such as academic tourism, and variables closely related to this form of tourism appear as determinants of tourism demand (Rodríguez et al., 2012). On the other hand, numerous studies focus on various specific issues (climate, environmental, social, political, terrorism, corruption, etc.) and their impact on tourism demand. Some authors have considered the impact of climate differences between the emitting country and destination on tourism demand (Li et al., 2017), but also the impact of terrorism on tourism demand (Ulucak et al., 2020).

With this in mind, countries belonging to the economic and geographical group of countries included in the EUrope Mediterranean (EU Med) alliance were selected in this paper[1]. The reason for choosing the countries of the Mediterranean region is that, according to the authors, no research has been done so far on the basic determinants (their direction and intensity of action) of tourist demand. In 2019, the Mediterranean region welcomed more than 400 million international tourist Arrivals (ITAs) annually, one of the world's most popular destinations. The tourism sector accounts for up to 15% of regional GDP , with a 75% growth since 1995, expected to reach 626 million ITAs by 2025 according to the UN World Tourism Organization (WTO) (Fosse et al., 2021).

Given that the countries within the Mediterranean region are also defined based on economic and geographical connectivity, eight countries were selected, which account for over 80 percent of total tourism spending within the region. In the context of the geographical location and the tourist products they offer. These are Croatia, Cyprus, France, Greece, Italy, Portugal, Spain and Slovenia. Considering the characteristics of the socio-economic environment that affect international tourism demand, the selection of European countries belonging to the same tourist region to define the spatial dimension of the sample allows drawing general conclusions about the determinants of international tourism demand for the study region. According to the UNWTO (2014), the European tourist region in the period from 1990 to 2013 (and according to projections and beyond) remained the leader in international tourist arrivals by region of origin (or emitting tourist demand) in the world, with total with an average share of more than 52% for the specified period. The size of emitting tourist demand included in the sample countries represents more than 82% of the total emitting tourist demand of the European tourist region, so it can be stated that this sample of countries is also representative of the European tourist region. Precisely because of the above, it is possible to draw general conclusions about the determinants of emitting tourist demand after empirical testing in this paper. The basic hypothesis of this paper is that selected macroeconomic factors, terrorism and Covid-19  have statistically significant impact on tourism demand in the selected countries from EU Med alliance.

The selected study period from 2010 to 2020 determines the defined time dimension for the above sample of countries that the empirical research will cover in this paper. The choice of this period is the result of considering the availability of statistics for that period and for all variables included in the empirical testing. In this paper, we follow Gallego et al., (2019) and the consideration of those questions and their analysis we will made with the methodology of dynamic panel data with the System GMM method.

A better knowledge of the factors that explain the tourists 'preferences to choose these countries as a destination will help policymakers design more adequate strategies to further develop this sector. Therefore, it is essential to analyze the determinants of EU Med's countries, and tourism demand for the tourism industry to apply efficient management and correspond to infrastructure development needs. The formulated model, besides traditional tourism demand determinants such as price and income, also considers investments as well as the terrorism index and COVID-19. Moreover, as the latter two determinants have been rarely investigated in general, and to the best of authors' knowledge have never been examined for (EU Med) in particular, by their inclusion into the proposed model, we directly contribute to the existing body of knowledge by shading new lights on their influence on tourism demand. Aside from being the first study in the literature that observe terrorism index and COVID-19 as determinants of tourism demand, this study also adds to the research on the demand for tourist product in less developed market. This study estimates the determinants of tourism demand in the EU Med countries. The findings of this study will identify indicators that determines

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[1] In this paper we will used the acronym EU Med  (formerly MED7; from EUrope Mediterranean) which is also referred to as "Club Med" and "Med Group", is an   of nine Mediterranean and Southern European Union member states, Croatia, Cyprus, France,  Greece,  Italy, Malta, Portugal, Slovenia and Spain. All nine countries are states of the European Union, all but Croatia are part of the eurozone (euro currency), and all except Cyprus and Croatia are part of unbounded the Schengen Area.

tourism demand in the EU Med region from economic and political side. The findings will provide an insight on most influential factors of tourism demand which may be of interest to policy makers and investors when formulating tourism development strategies. This study is important because it is the first one to conduct empirical estimation of tourism demand in the EU Med region. Moreover, the study contributes to an understanding of tourism demand in an Mediteranian region.Tourism demand forecasting would help managers and investors make operational, efficient and strategic decisions. The substantial contribution of tourism in EU Med,s countries justifies the interest in explaining the determinants of tourism demand and, therefore, the factors that influence the decision of tourists to choose the country as a destination place.

The paper is organized as follows. Section 2 briefly reviews the existing studies of the determinants of tourist demand. Section 3 introduces the empirical methodology and data. Section 4 shows the empirical results, while, Section 5 synthesizes the paper findings and offers policy-relevant recommendations.

## 2. Literature review

The field of tourist demand analysis has attracted the attention of scientists and business people, with the aim of analyzing the effects of different variables on tourist demand and enabling accurate forecasting of international tourist demand. The first (pioneering) works in this area can be found in the 1960s (Guthrie, 1961; Gerakis, 1965; Gray, 1966, cited in Song et al., 2009). Since then, research in this area has made significant progress in the diversity of research interests, the quality of theoretical settings and the improvement of methodologies used in research. Progress in research in this area has been significantly accelerated since the 1990s thanks to advances in various methodological techniques, such as econometric, which have only been introduced in tourism research in the last 20 years (Song et al., 2009).

According to Lim (2006), observing the level of tourist demand through the prism of tourist services exports or tourist services imports is a good measure of tourist demand, especially if one wants to study the influence of tourist demand on the impact of tourist consumption in both emitting and receptive countries. Lim (2006) lists other indicators of international tourism demand used in previous research, including the number of tourist nights in hotel accommodation, the length of stay of tourists, the classification of arrivals by purpose of arrival (business trips, visits to friends and relatives) and others . The tourist demand for the destination is expressed by the number of total tourist arrivals from emitting countries, and can be further analyzed according to different types or purposes of tourist arrivals. For example, Turner & Witt (2001a, 2001b) analyze international tourist travel demand (BT). More detailed research goes back to the analysis of international tourism demand differentiated according to, for example, the categories of means of transport used (Song & Li, 2008) and others.

Song & Li (2008) analyze the indicators of international tourism demand used in research over the last 20 years. They conclude that the variable of international tourist arrivals is the most popular indicator of international tourist demand when researching demand for a specific destination. Revenue from international tourism or tourist spending appears in the literature as the second most commonly used indicator of international tourism demand (Akal, 2004).

Gatt and Falzon, 2014 used the almost ideal demand system (AIDS) model developed by Deaton & Muellbauer (1980) to estimate tourism demand elasticities for a number of Mediterranean countries (Cyprus, Greece, Italy, Malta, Portugal, Spain and Turkey) in relation to tourists originating from the United Kingdom during the period 1963 to 2009. Using the restrictions imposed by theory, they find that the model is able to explain developments in market shares reasonably well, despite the large and at times sudden changes in market shares over the sample period. Their share estimates indicate that while Spain and Portugal managed to keep a stable market share over time, Malta and

especially Italy lost market share to Cyprus, Greece and Turkey. Overall, they observe that Italy and Spain have the lowest own-price elasticities, whereas Greece, Portugal, Spain and Turkey are expenditure inelastic holiday destinations. They also improve over the traditional treatment of the AIDS model in the literature by studying the stability of the estimated elasticities over time using recursive estimates. The results indicate that some elasticities are indeed time varying and highlight the potential pitfalls of assuming fixed and stable elasticities over a long period, as is customary in the tourism literature.

An interesting example of a model of tourism demand with specific factors involved in the impact of tourism demand is the authors (Li et al., 2017). They included climatic factors as explanatory variables in the standard model of tourist demand (data on climatic conditions in the visitor's domicile, data on climatic conditions in the destination and data on the difference between the climate in the destination and the climate of the visitor's home country). factors have a significant impact on the demand for tourism in 19 tourist cities in mainland China among tourists from Hong Kong. Again, the method of generalized moments over panel data was used. The dependent variable in the model, ie the demand measure, is the number of tourist arrivals from Hong Kong, and in addition to the dependent variable with time lag, among the standard explanatory variables in this model were: GDP per capita of Hong Kong; relative price indicator calculated as the ratio of the consumer price index in destination cities and Hong Kong adjusted for the exchange rate; dummy variables due to the possible impact of well-known events on tourism demand (Beijing 2008 Olympic Games, Shanghai Expo 2010, Guangzhou Asian Games 2010).

Luisa & Rosa. (2017) employs a gravity framework to evaluate the tourism in European Mediterranean countries. The paper analyses the destination competitiveness as a means for tourism attraction and also verifies whether more competitive countries can be used as a point of reference for the development of those lagging behind. The gravity equations are used because of their proven effectiveness in estimating other similar studies fields. This study focuses on the Mediterranean European countries, mainly due essentially, to the wide span of their positions along the TTCI ranking (Spain ranks first, whereas Montenegro is in 67th place). Results reveal that these European destinations are not efficiently exploiting their tourism capacity and they need apply policies to foster this economic activity and enable the transformation of competitiveness into greater numbers of visitors.

Unur et al.,(2019) were investigating the factors that influence the demand for tourism for 12 countries located in the Mediterranean for the period between 1995 and 2013. Contrary to the method in which the tourism demand was explained in touristsending countries with economic variables; the number of annual tourist arrivals, the gross domestic product per capita, total reserves, general government final consumption expenditure and life expectancy at birth variables are used based on the idea that the economic variables of the tourist-receiving countries might be influential on the tourism demand for the relevant country. According to the Panel Co-integration Test results, there is a long-term relationship between the number of tourist arrivals and the GDP per capita, total reserves, and life expectancy variables .

The purpose of the paper of (Mazzola et al.,2019), is to verifying the economic resilience of islands and, in particular, the role of the tourism sector in the reaction to the most recent economic crisis. The analysis concerns insular contexts, such as the greater island regions in the Mediterranean basin. Static and dynamic panel data techniques are used for a sample of 13 island economies over a period of 16 years (2000–2015). Results show that the growth factors for regional islands are similar to the ones usually considered for other regions, but the tourism-led growth hypothesis is highly supported. Tourism demand more than supply plays a role together with accessibility. The crisis has reduced the importance of tourism supply, while tourism demand and accessibility have remained crucial for growth together with other traditional engines of growth.

Ulucak et al., (2020), in order to analyse factors influencing the number of tourist visits to Turkey from the top 25 countries of origin between 1998 and 2017,employed an augmented gravity model using panel data. The results show that the gravity model is very effective in explaining the tourist arrivals to Turkey. Empirical findings suggest that per capita income of both origin country and Turkey, relative exchange rate, and globalization positively affect the demand for tourism, while it is negatively affected by consumer price index, violence/terrorism, household debt level, and bilateral distance between Turkey and the origin country.

Pervan & Jurić (2021) investigate the influence of different factors on tourism demand, this research used a panel dataset on 16 countries of origin and 9 competitor countries during the period from 2012 to 2019. As dynamic component is included in the formulated model, a first-differenced GMM estimator was applied in the research. The analysis is conducted on the sample of 16 countries of origin and 9 competitor countries during the period 2012-2019 with the application of dynamic panel data model. All variables encompassed in the model i.e., price, income, corruption, terrorism and investments, show statistically significant influence on tourist arrivals in Croatia.

## 3. Methods

### 3.1. Model Specifications

The works assessing the determinants of tourist demand are mostly related to countries where tourism is traditionally very important in the economy (Greece, Turkey, Egypt, France, etc.). Methods such as the least squares method (Soukazis and Proenka, 2005), two-phase and three-phase least squares methods (Allen & Yap, 2009), GMM method (Habibi et al., 2009) are used. ), and multiple linear regression models (VAR models), and numerous others (Dritsakis, 2004; Eilat & Einav, 2004). It is evident that the analyzes of the mentioned research were based on the use of time series, and only recently we have a more frequent use of data based on a set of time series and spatial data, ie panel data. Given the growing importance of panel data analysis for better modeling of various phenomena and thus tourism demand (Candela and Figini, 2012), the mentioned approach will be used in this paper. The exponential growth of empirical research on determinants of tourism demand using panel analysis methodology has been recorded since the beginning of the 21st century (Seetaram and Petit, 2012). Furthermore, the development of the use of panel models in the last ten years has led to the increasing use of dynamic panel models in the analysis of determinants of tourism demand. The advantage of applying panel data analysis according to Brooks (2008) is that panel analysis enables the investigation of more complex problems that cannot be addressed using time series or spatial (cross-sectional) data separately. According to Song, Witt & Lee (2009) using panel analysis, it is possible to obtain robust results in modeling over economic and social variables. In such research, which simultaneously models the spatial and temporal component of a phenomenon, panel analysis has become an unavoidable econometric technique (Škrabić Perić, 2012). The most obvious advantage of panel analysis is that conclusions are made using a larger sample, ie a larger number of observations so that there is no problem of losing a large number of degrees of freedom (Seetaram and Petit, 2012). Panel data can reduce the effect of parameter bias that occurs, for example, due to missing data or atypical values (outliers). Therefore, it can be concluded that the estimators in the panels are more robust to the incomplete specification of the model. According to Baltagi (2005), panel data allow modeling of more complex econometric models, such as temporal changes in spatial units. Additionally, panel models assume data diversity and reduce correlation between variables. Namely, if it happens that two variables within one observation unit are strongly correlated, but this correlation is not expressed among the variables of other observation units, this correlation loses its significance and

does not significantly affect the results. According to Seetaram and Petit (2012), one of the most important advantages of panel analysis is that it allows control of heterogeneity in a research sample.

Previous research has shown that past demand for a good or service can have an impact on future demand and that the nature of demand for tourism products, like many other economic relationships, can be characterized as dynamic. For this reason, in models involving dynamic specifications, estimators such as the simple and generalized least squares method (OLS and GLS) would cause biased and inconsistent estimates. Therefore, in order to overcome the mentioned problem, the procedure of generalized method of moments proposed by Arellano & Bond (1991) is applied in this paper. However, in order to obtain a consistent and unbiased estimate, the generalized method of moments requires that there is no autocorrelation of the $\varepsilon$it error (Cameron and Trivedi, 2010). For this reason, it is necessary to check by diagnostic tests whether there is a problem of autocorrelation among the first differences of residual deviations. First- and second-order autocorrelation tests are usually performed using the Arellano and Bond tests (m1 and m2 tests). If first-order autocorrelation is present among the first residual differences, parameter estimates remain consistent. On the other hand, if a second-order correlation is found among the first residual differences, the parameter estimates are not consistent. In addition, the calculation of the m2 test is possible in the case when the number of observations for each observation unit is at least 5 (Škuflić & Mlinarić, 2015).

Another diagnostic test commonly used in this type of analysis is the Sargan test, which verifies the validity of the selected instruments needed to evaluate the model by analyzing the correlation of instrumental variables with residuals. Sargan's test actually examines the pre-identification of constraints because it is assumed that the introduction of each new instrumental variable introduces a new condition, ie a constraint that needs to be met (Škuflić & Mlinarić, 2015).

The initial form of the tourist demand model based on the selected variables can be expressed as:

$$D\text{EMAND}_{i,t} = f\ (D\text{EMAND}_{i,t-1}, \text{GDPPC}_{i,t}, \text{INV}_{i,t}, \text{INF}_{i,t}, \text{TRADE}_{i,t}, \text{TEROR}_{i,t}, \text{DUMMY}_{t}).$$
(1)

Furthermore, in order for the model to take a linear form and interpret the estimated parameters as coefficients of elasticity, a logarithmic transformation was performed on the original values of tourist demand, and GDPPC were ultimately expressed by natural logarithm. Therefore, the form of model (1) takes the following form:

$$ln D\text{EMAND}_{i,t} = f\ (ln D\text{EMAND}_{i,t-1}, n\text{GDPPC}_{i,t}, \text{INV}_{i,t}, \text{INF}_{i,t}, \text{TRADE}_{i,t}, \text{TEROR}_{i,t},$$
$$\text{DUMMY}_{t}) \qquad (2)$$

In addition to the above, the general form of the model of tourist demand in selected countries in this paper is expressed as:

$$Q_{i,t} = \alpha + \delta Q_{i,t-1} + \sum_{n=1}^{N} \beta_n X_{it}^n + \varepsilon_{it} \quad \varepsilon_{it} = \upsilon_i + u_{it} \tag{3}$$

where is:

$Q_{i,t}$ number of tourist arrivals from the emitting country and in year t (i = Austria,… United Kingdom; t = 2010,…, 2020);

- $\alpha$ is a constant term,;

- $\delta$ speed of adjustment of the existing state of the dependent variable according to the desired state;
- Qit-1 value of the dependent variable in the previous year, ie the number of tourist arrivals in the previous year;
- $\beta$ estimated parameters;
- *Xit* explanatory variables (income, investment, inflation, trade, terrorism, dummy);
- *εit* stands for the disturbance, in which *vi* represents the unobserved country-specific effect while *uit* denotes idiosyncratic error. (Škuflić & Mlinarić, 2015).

At the value of the term δ close to zero, there is a high speed of adjustment to the optimal level, while the value of δ close to one indicates a very slow adjustment process. The first case indicates that the industry is quite competitive, while in the second case the industry is less competitive (Athanasoglou et al., 2008).

### 3.2 Data and variables definition

The variables in this model were selected based on the studied relevant literature, previous research and in accordance with the availability of data. Each variable from the model, data sources as well as theoretically expected signs are explained below. In this paper we will analyze the demand for tourism in selected EU Med countries Croatia, Cyprus, France, Greece, Italy, Portugal, Spain and Slovenia by tourists from European and non-European countries. The most important twenty-eight emitting markets were selected according to the number of arrivals in the specified period: Austria, Australia, Bulgaria, Canada, Croatia, Czech Republic, Cyprus, Denmark, France, Finland, Germany, Hungary, Italy, Israel, Ireland, Japan, Netherlands, Norway, Portugal, Poland, Romania, Russia, Switzerland, Sweden, Spain, Slovakia, Turkey, UK and USA. Based on a sample period of 10 years, from 2010 to 2020, the data for the study are obtained from the World Bank Reports, and Vision of Humanity. Garín-Muñoz (2006) states that the use of annual data avoids potential problems that may arise due to seasonality.

Table 1. **Definition of variables**

| Variable | Abbreviation | Description | Source |
|---|---|---|---|
| International inbound tourists | DEMAND | Number of tourist arrivals in selected countries by tourists from the most important emitting markets | World Development Indicators |
| GDP per capita | GDPPC | (current US$) | World Development Indicators |
| Inflation Consumer price index | INF | Inflation as measured by the consumer price index | World Development Indicators |
| Investments | INV | Gross fixed capital formation (per cent of GDP) | World Development Indicators |
| Trade | TRADE | per cent of GDP | World Development Indicators |
|  |  | Global Terrorism Index (GTI) is a | Vision of |

| Global Terrorism Index | TEROR | complex measure consisting of four indicators: incidents, deaths, injuries and property damage | Humanity |
|---|---|---|---|

Source: World Bank Reports, and Vision of Humanity

Before presenting the potential determinants of tourist demand, it is necessary to identify the dependent variable. Following the example of Garín-Muñoz (2006) and Li H., Song and Li L. (2017), the dependent variable in the model is the number of tourist arrivals in selected countries by tourists from the most important emitting markets (DEMANDi, t ). This variable also represents a measure of tourist demand in the model. It shows the number of tourist arrivals from the emitting country in the year t (i = Austria,… United Kingdom; t = 2005, (, 2019).

Furthemore we employ the following explanatory variables:

Dependent variable with time shift. As in other dynamic models, the value of the time-dependent variable was included in the model as an explanatory variable (DEMAND, t-1). This variable represents the demand in the previous period. Garín-Muñoz (2006; 2007) explains the reasons justifying the inclusion of past spending as a regressor. The first reason is that less uncertainty is associated with staying in a destination already known to visitors, compared to traveling to an unknown foreign destination. Another reason relates to the fact that knowledge and word about the destination spreads as tourists recount events and impressions about their trip to friends and acquaintances, thus reducing uncertainty and uncertainty for potential new visitors to the same destination. Garín-Muñoz (2006; 2007) also emphasizes that it is possible that, if the impact of past demand is ignored, the impact of the relevant variables under consideration will be overestimated. According to the results of previous research, a positive sign of this variable is expected

The variable of tourist income that will be used for empirical testing will be approximated by the GDP *per capita* in the origin country as a measure for tourist's income in $ and in the observed period, ie time t (GDPPCit). GDPPC is generally a much better measure of the level of income earned by a country's residents, especially when it comes to modeling emitting tourist demand for holidays, than, for example, the more commonly used gross domestic product indicator p.c. ( Song et al., 2009.) Starting from microeconomic theory as well as from previous research, a positive sign is expected for this variable.

Furthemore, we will used a consumer price index in the selected EU Med countries as the proxy for the cost of tourism. If there  increase in the consumer price index that will produce a higher cost of tourism.

The level of investment (INVit) of all economic sectors of the host country will be represented by the percentage share of gross investment of business sector (INVbit) and household sector (INVhit) in the country and gross domestic product and time t, Given that higher investment activity a positive link between investment activity and tourism demand is expected.

Openness to international trade in goods and services (TRADE) will be approximated by the percentage indicator of the value of total trade (exports and imports) of goods and services (excluding emitting tourist demand) per capita and in time t. A positive relationship between this indicator and emitting tourist demand is expected, based on the assumption that knowing the destination within the emitting market also affects tourist demand.

Terrorism in destinations. The terrorism is a phenomenon that affects the geo-economic and the polit-ical processes. The effect and consequences of terrorism, however, are very interesting  to be  studied  when  they  are  designed  on  the  tourism  industry. From a geo-economic point of view, the effects of terrorism are developing particularly rapidly in connection with tour-ism, as well  as  demonstrate tremendous power in the 21st century (Stankova et al., 2019). Bearing this in mind we also included in the model the impact of terrorism in destinations (TERORt). The Global Terrorism Index, published by Vision of Humanity, was chosen as a measure of terrorism in competing

countries, and is based on the Global Terrorism Database (GTD), which is the most respectable source of terrorism data today. Vision of Humanity is supported by the Institute for Economics and Peace (IEP). According to the Vision of Humanity, the Global Terrorism Index (GTI) is a complex measure consisting of four indicators: incidents, deaths, injuries and property damage. The Global Terrorism Index rates each country on a scale of 0 to 10, with 0 representing the absence of the impact of terrorism, while 10 represents the greatest measurable effect of terrorism. Countries are ranked in descending order with the worst scores at the top of the scale. As for the very definition of terrorism, the Global Terrorism Index defines terrorism as the threat or actual use of illegal force and violence by a non-state actor to achieve political, economic, religious or social goals through fear, coercion or intimidation. This definition takes into account that terrorism refers not only to the physical act of attack, but also to the psychological impact it leaves on society long after the act itself (Institute for Economics & Peace, 2020). Terrorists have often used tourists as targets because they are easy to attack and attract a lot of attention from the media. Nikšić et al., (2018) Considering the studied literature, but also the well-known practice, it is assumed that visitors will prefer safer countries, so in the case of terrorism in destinations, they will prefer to spend their vacation in other countries. Therefore, a negative sign for the global terrorism index is expected.

The rapid spread of Covid-19 has significantly affected global tourism, which has suffered serious consequences ( Estrada et al., 2020), especially attractive tourist destinations, such as France, Italy and Spain, but also countries where outbound tourism is extremely widespread, such as China and the United States (Farzanegan et al., 2020). The news that the virus has spread has caused great concern among tourists, potential tourists and the wider tourism industry. During the COVID-19 pandemic, consumer prices and the incomes of overseas tourists are still adjusting to the changed financial environment, and this has altered the price competitiveness landscape (Esquivias et al.,2021).

A global wave of cancellations and postponements of tourist and business arrangements followed. The (UNWTO, 2020) forecast for the COVID-19 crisis is a potential loss of 100 million jobs and $ 2.694 billion of world GDP due to declining travel and tourism. The recommendations given by the WTTC (targeting the Governments of the countries), which refer to the tourism sector are the following: reduction of travel barriers and facilitation of procedures (visas, etc.), easing fiscal policies (reduction of travel fees), support of the business sector (tax exemptions) and destination support (increased budget for promotion, development of tourist products, etc.). Bearing this in mind we also include a binary dummy for the emergence of the Covid-19 and assign a value of one for the 2020 and a value of zero for all other periods.

Table 1 presents the descriptive statistics for the determinants involved s of visitors from the observed sample was 65212424. The lowest number of arrivals was 2450000, while the highest number of arrivals was 217877000. The average value of net national income for all countries is about $ 24794.35 per capita , with a large range between the minimum and maximum values, ie the amount of $ 8536,433 per capita to $ 43,790.73 per capita. The standard deviation for this variable is also quite large. This was to be expected given that the tourist region of Europe includes old and new members of the European Union, which differ considerably in terms of the level of economic development. Average investments in selected countries in the observed period amounted to 19.25, while the range of trade was from a minimum of 46.69 to 154.5% of GDP. Also, the selected countries together recorded the value of the global terrorism index averaging 3.7 in the observed period. The lowest rate of terrorism (GIT) is 0.16, while the highest GIT is 8.18. Table 1:

Table 2. **Descriptive statistics**

|  | DEMAND | GDPPC | INV | INF | TRADE | TEROR |
|---|---|---|---|---|---|---|
| Mean | 65212424 | 24794.35 | 19.25367 | 2.023967 | 75.15304 | 3.703385 |
| Median | 46649000 | 25028.23 | 19.05975 | 1.114745 | 64.17706 | 3.75 |

| | | | | | |
|---|---|---|---|---|---|
| Maximum | 217877000 | 43790.73 | 29.85714 | 16.33246 | 154.5827 | 8.18 |
| Minimum | 2450000 | 8536.433 | 10.57804 | -2.097 | 46.69447 | 0.16 |
| Std. Dev. | 61991703 | 9599.879 | 4.670496 | 3.497672 | 25.8685 | 2.224985 |
| Observations | 84 | 88 | 88 | 88 | 88 | 65 |

Source:Author calculations

Before evaluating the proposed model of determinants of tourism demand, it is necessary to check the correlation between potential independent variables to identify possible problems of multicollinearity between them. Pearson's correlation coefficients in pairs were calculated for all pairs of variables and are shown in Table 2.

Table 3. **Correlation matrix**

| | DEMAND | GDPPC | INV | INF | TRADE | TEROR |
|---|---|---|---|---|---|---|
| DEMAND | 1 | 0.6696 | 0.2401 | -0.1307 | 0.4623 | -0.2727 |
| GDPPC | 0.6696 | 1 | -0.1925 | -0.4886 | -0.0460 | -0.1738 |
| INV | 0.2401 | -0.1925 | 1 | 0.7618 | -0.3153 | 0.6230 |
| INF | -0.1307 | -0.4886 | 0.7618 | 1 | -0.3084 | 0.6561 |
| TRADE | 0.4623 | -0.0460 | -0.3153 | -0.3084 | 1 | -0.6358 |
| TEROR | -0.2727 | -0.1738 | 0.6230 | 0.6561 | -0.6358 | 1 |

Source: Author calculations

According to Gujarati and Porter (2009), multicollinearity is a problem when the correlation is above 0.80. As we presented in Table 2, all correlation coefficients were found to be below this threshold, suggesting the continuation of use of all the variables included in running the regression model.

## 4. Results

Before interpreting the results, it is necessary to first perform the necessary diagnostic tests to verify the validity of the model. Also in order to get robusnest of the results we will used difference GMM. The results of the Arellano-Bond and Sargan tests can be seen in Table 3.

Table 4. **Estimation Results**

| | Results | |
|---|---|---|
| **Explanatory variables** | **Difference GMM** | **System GMM** |
| Lagged dependent variable $logDEMAND_{t-1}$ | 0.616 *** (0.005) | 0.629*** (0.009) |
| Constant | | -0.957*** (0.034) |
| LogGDPPC | 0.067*** (0.043) | 0.054*** (0.027) |
| INV | 0.070 (0.006) | 0.001 (0.004) |

| | | |
|---|---|---|
| INF | 0.012 (0.002) | 0.011 (0.007) |
| TRADE | 0.003*** (0.009) | 0.001*** (0.004) |
| TEROR | -0.056 (0.006) | -0.104*** (0.004) |
| Dummy | -1.056*** (0.018) | -1.114*** (0.014) |
| Number of countries | 8 | 8 |
| Sargan test (p-value) | 0.535 | 0.256 |
| Arellano-Bond test [AR (1)] | 0.034 | 0.044 |
| Arellano-Bond test [AR (2)] | 0.905 | 0.968 |

Notes: Standard errors are presented in parentheses.
Source**:** Authors' calculations.

Among the first residual differences, first-order autocorrelation is present at a significance level of 0.05 because m1 (0.044) <0.05, and therefore the null hypothesis of no first-order autocorrelation is rejected. However, even with the presence of first-order autocorrelation, parameter estimates in the model may still be consistent. What is crucial is that second-order autocorrelation is not present among the first residual differences because m2 is 0.968, which exceeds the significance level of 0.05, so the hypothesis of no second-order autocorrelation can be accepted. This also makes the Arellano-Bond test criterion satisfied. The second check refers to the Sargan test whose p-value in the model is 0.256 which exceeds the significance level of 0.05 so it can be concluded that the selected instruments in the model are valid. Also diagnostic tests from difference GMM show that the model is valid.

Since the model satisfied both diagnostic tests - Arellano-Bond and Sargan test, it can be further analyzed and interpreted in accordance with the obtained results.

The estimated coefficient with the time-dependent variable ($Q_i$, t-1) is 0.5 and is statistically significant at a significance level of 1%. Taking into account the previously explained interpretation of this coefficient by Athanasoglou et al., (2008), it can be concluded that the tourism industry in the selected countries is moderately competitive. The coefficient of past demand of 0.5 also indicates the presence of consistency in the habits of tourists who gladly return to selected countries, as well as the possible effect of "word of mouth". Similar results on the positive impact of previous demand on future tourism demand can be found in Garín-Muñoz (2006, 2007), who also emphasizes the importance of providing high quality service in order to gain a good reputation among tourists and attract both old and new visitors. This result is high loyalty of tourists in the selected countries and which also recognized the recommendations of relatives and friends and previous stay as the most important sources of destination information (along the Internet).

Based on the coefficients with the above variables, it can be seen that the change in net national income p.c. in a given year for one unit leads to an increase in emitting tourist consumption of 0.054 units, for the analysis included the tourist region. Income elasticities are less than one, indicated that tourism travel is not a luxury good. The result is also consistent with the results of previous research for various proxy variables used in defining income (Lim & McAller, 2001).

The results of consumer price index (CPI) variable indicates that international demand for travel to selected EU Med countries is not sensitive to the fluctuations of this variable, because has a positive sign and is almost equal to zero but it is insignificant. These results are consistent with the findings (Khoshnevis Yazdi & Gomami, 2016).

Also as we expected we have a positive sign from trade, which mean that an increase in trade openness implies the easiness to travel and encourages tourists to come. This result is consistent with (Hanafiah et al., 2011; Rasekhi & Mohammadi, 2017).

The estimated parameter with the variable representing terrorism in destinations is -0.10% and is statistically significant at a significance level of 1%. This coefficient shows that the 1% growth of terrorist activities in selected countries (expressed by the global terrorism index) affects the demand for tourism products in such a way that in this case it falls by 0.10%.

As we expected, the COVID-19 pandemic led to significant negative changes in international tourism, and certainly in the selected countries. These changes are caused in most cases by measures taken by countries in the form of restrictions on the movement of people, and not as a result of reducing the desire of tourists to travel. In the selected countries, Spain is the country which suffered the most from the COVID-19 outbreak (OECD, Tourism Policy Responses to COVID-19, 2020).

From the results of difference GMM confirm the robusnest of the model and we got almost same results.

## 5. Discussion

In this section,we focused on comparing above-mentioned results of presented paper to other scientific papers. Knowing the main determinants of tourist demand in selected EU Med countries can be very important to assist in decisions, given the contribution of this market of origin to the country.

Based on the results, it is identified that income is the most important factor that determines tourism demand for selected EuroMed9 countries. Similar to the findings of (Hanafiah et al., 2011; Gan 2015; Soofi et al., 2018), income is identified to be positively related to the tourism demand. It implies that the increase in income per capita for selected EU Med countries causes the tourism demand to go higher. According to Soofi et al., (2018), the positive relationship income per capita is known as an indicator of the level of economic development that could promote tourism receipts. The current paper believes that the increase in the level of economic development implies the improvement in terms of infrastructure, facility, and security that attracts tourists to come to the host countries. Also developing countries with more GDP per capita take more place in the media. Their names are often mentioned along with organizations such as film and music festivals (Unur et al., 2019). The perfect example would be set for the city of Paris which is recognized and referred to as the capital of fashion by the worldwide media without any extra efforts, advertising and promotional activities of France with the annual GDP per capita of $ 42,000. As a result, the increase in the GDP per capita of a country has a positive impact on the country's image, and in this regard, the tourism demand for the country increases in the long-run (Schubert et al., 2011, p.381).

Furthermore, the openness of the economy, i.e. the knowledge of destinations in the issuing country through various products and services that are subject to international (or bilateral) exchange, has a positive impact on the emission tourism demand. Confirmation of the above is visible in the statistical significance of the TRADE variable, a positive sign parameter with the above variable, which confirmed the sub-hypothesis by empirical testing The positive and significant impact of trade openness is consistent with (Hanafiah et al., 2011; Rasekhi & Mohammadi, 2017). The current paper argues that an increase in trade openness implies the easiness to travel and encourages tourists to come. In line with (Eilat & Einav, 2004; Phakdisoth & Kim, 2007), they found that trade partners are an important vehicle to expand tourism. A higher trade value means wider trade openness. Hence, we can conclude that higher trade value will affect tourist arrivals regarding the trade openness

As matter of fact, in trade aimed travels to a country, a product is bought from the country visited (import) or is sold to that country (export). With this regard, a successful business travel to a

country leads a trade stream between countries; as a result, in the scope of new trade/business negotiations or business travels between those countries, economic relations develop. This situation is an external effect of a successful commercial business travel reveals. Thus, with externality a successful business travel creates, in the trade etc. aimed travels to that country, an increase will be under consideration. The increase of trade aimed business travels from a country to other will also certainly lead to the increase of the holiday, recreation, rest, and recreation aimed travels. However, buying goods and services from a country will indirectly pioneer to the presentation and advertisement of that country in the home country. In addition, trade between countries will cause to increase of the consumers' interest to goods and services purchased and humans to be informed about products and the country, resources of that country. Hence the interest and famousness that earlier begin with the commercial relationships between countries will guide to the touristic aimed travels in the next stage (Kulendran & Wilson 2000, p. 1002). Subject to possible caveats of the study, the following are some important policy implications for selected EU Med countries in terms of tourism and trade that can be drawn from the findings. It seems that an increase in international trade even if export or import, increases will cause growth in tourism sector, which means that most of tourist arrivals are related to tourism in especially less developed countries in the sample such as Croatia and Turkey. Hence, economic policy should focus more on trade related tourism, in order to generate more foreign trade earning to selected EU Med countries. Besides, in order to increase and sustain in the growth of tourism sector, more attention should be given to the business tourism such as meetings, incentives, academicals, conferences, workshop and exhibitions.

Furthemore, the results reveal that terrorism has a negative relationship with tourism demand, given that fear of casualty from terror attacks could be limiting the preference of potential tourists in terms of choice of destination, thereby negatively affecting the general inbound tourist arrivals into the countries. This result is in line with the fact that personal safety is one of the most important elements of tourist demand. For example, in Paris, after the attacks suffered in 2015, the large shopping centre Galeries Lafayette halved the number of visitors, in the hospitality sector the occupancy rate and room revenues fell by more than 20% during the first weekend, some meetings and activities were cancelled, others confirmed, but with reinforced controls (Varani & Bernardini, 2018). The significant impact of terrorism on tourism demand has been confirmed by, (Samitas et al., 2018; Fourie et al., 2020; Ulucak et al.,2020). The results of this research also have implications for practice at the level of the tourist destination as a whole in the planning and implementation phase. In the planning phase, tourist destinations, especially those whose economy is significantly dependent on tourism (as is the case in our example), must implement crisis management strategies in order to deal with terrorist threats (Bilandžić & Lucić, 2015). It is imperative for destinations to implement crisis management with marketing efforts to regain lost tourist interest and rebuild a positive image. Once a situation is identified as a crisis, crisis management should be initiated until full recovery is achieved. Destinations that are susceptible to attacks should at least implement basic measures to prepare for a crisis in tourism.Managers should face the fact that terrorist attacks provoke a substitution effect on destination choice behaviors. Tourists will replace destinations considered unsafe due to terrorist threats with others considered safer. The physical distance of the tourists' home countries and their cultural and socio-economic traits influence this replacement behavior. In addition, managers must take into account that the substitution effect occurs between the European countries located in central areas and those located in peripheral areas. When terrorist attacks occur in the Mediteranian countries, tourists avoid those regions and choose peripheral destinations like Portugal (Seabra et al., 2020) Evidence also made it clear that the opposite effect also happens. Given the randomness of terrorist attacks, tourism managers should be prepared to alter quickly their marketing strategy, namely their market targeting strategies and promotion campaigns to prevent substitution effect. The findings from this study support the recommendation of providing continuous support for the security establishment of the nation to boost tourist confidence towards stimulating inbound arrivals. Because tourism earnings

are very crucial to the stability of the selected countries, the current finding calls for more proactive measures for curbing terrorist attacks by strengthening security not just in the public arena alone but also at major historical sites and other popular touristic areas

COVID-19 pandemic led to significant negative changes in international tourism, and certainly in the selected countries. Namely, development dynamics and trends in the Mediterranean, as in the rest of the world, have suffered a severe slowdown since 2020. In many cases, they have taken the form of a sharp reversal following the outbreak of the COVID-19 pandemic and the social and economic crisis that has ensued. The pandemic crisis has weakened economic sectors that are considered vulnerable as they are more than others influenced by different variables. The Mediterranean basin and the countries of the three continents bordering it have not been spared by the crisis, and in this context one of the hardest hit sectors has been tourism. Consequently, many of the measures adopted by national governments have focused, on the one hand, on income support for workers in the tourism sector and, on the other, on support mechanisms for the activities linked to the sector (directly or indirectly). At the same time, many Mediterranean countries, especially within the framework of multilateral and supranational initiatives, have been preparing recovery plans to tackle the post-pandemic phase and beyond. Alongside generating substantialfinancial burdens, the pandemic fostered the adoption of new routines and technologies to dynamically respond to these threats by making use of all possible organizational resources to survive the crisis and its consequences on organizational processes (Capolupo et al., 2022).

To be fully beneficial for the territories, countries and the Mediterranean region at large, sustainable and innovative tourism should therefore take into account some critical aspects such as:

-New forms of tourism, targeting not only international visitors, but also, and above all, local visitors and operators, so as to make the overall sector more resilient;

Indeed, domestic tourism is providing a much needed boost to help sustain many tourism destinations and businesses, and will continue to be a key driver of recovery in the short to medium term. - Integration and synergies with other related sectors (e.g. agriculture, fisheries, restauration, transport, infrastructures for energy efficiency, etc.) to maximise the added value of local tourism (e.g. pescatourism, ecotourism, supporting immaterial heritage such as the Mediterranean diet, underwater tourism…).

- Integrated Coastal Zone Management (ICZM) and Maritime Spatial Planning (MSP) are operational governance tools that can help local ecosystems and communities; in this sense, there is a need for promoting greater integration of policies and sectors in order to maximize and rationalize the sustainable use of local assets and marine/coastal space by tourism businesses.

- As the impacts of climate change are expected to be severe for coastal communities across the Mediterranean, sustainable tourism business models and practices are to adapt to the increased challenges that they will have to face (e.g. involving more resilient and adaptive infrastructures, services/products offered, skills and capabilities, etc.).

- Digitalisation should be properly considered given that data and market intelligence will be vital Climate friendly, while sustainable travel experiences have further boosted the demand for "slow tourism" and outdoor, nature-based destinations.

The coefficients of inflation is not statistically significant, which means that tourism in selected EU Med countries is not very sensitive to prices indicating that tourists do not perceive selected EU Med countries as an expensive destination and rising prices in selected EU Med countries will not change their decision to travel.

The last estimated parameter refers to variable investment in selected EU Med countries, which amounts to 0.001%. As for the statistical significance of this coefficient, it is not statistically significant. On the basis of this result, it can be concluded that the demand for Croatian tourist products is weakly sensitive to changes in foreign supply, because a 1% increase in capital investment would imply only 0.001%. growth in tourist demand. However, it is important to emphasize that in practice investment

refers to a much wider set of different investments, including infrastructure investments, construction works, investments in human resources and many others, while this model, due to simplification, only takes into account a narrower area of investments that are related in the activities of providing accommodation and preparing and serving food (hotels and restaurants). Therefore, the low value of the coefficient can be explained by the fact that the impact of only part of the relevant investments was observed.

The research in this paper tried to overcome the mentioned limitations in the previous work of research. However, given the complexity of the research area, it is possible to identify limitations within this paper's research, and also give guidelines for future research.

The limitations of the research are manifested in:

- the impossibility of including a larger number of countries in the research sample and a longer period of time for which hypotheses were empirically tested;

- the need to investigate in more detail the social preferences of the broadcast market and define additional variables that explain it;

- it is necessary to define another proxy variable that can replace the investment variable in research and development and which can be significant in determining the emissive tourist demand;

- eventual methodological shortcomings that arise from the chosen estimator of dynamic panel models in empirical hypothesis testing.

On the given limitations of the first part of the research, it is possible to present guidelines for future research related to:

- the increase includes the number of countries and the time period of the analysis in which the socio-economic environment and its influence on the emitting touristic demand will be determined;

- an empirical investigation of other socio-economic variables on the emission market that determine tourism demand, such as the degree of urbanization, literacy rate of the population, residential structures by age and sex, etc., then determining expectations in the economy based on the consumer confidence index or similar;

- replace research and development with new indicators such as the number of patents approved for a certain period per capita of the emitting country;

- the use of other 'possible' estimators of dynamic panel models in testing new determinants of emissive tourist demand.

## 6. Conclusion

Tourism is an important engine for growth and economic development, which coincides with the fact that the least competitive countries are the most disadvantaged areas. Given this scenario, it is not difficult to argue that the latter should orient their efforts to reproduce the positive aspects of the more prosperous countries. Their public and private policies should be directed towards improving safety, health, businesses, and other general aspects so that these factors can generate a greater number of international visitors.

Due to the exceptional importance of the tourism industry for selected countries, it is important to frequently conduct various analyses and empirical research to better understand the decision-makers and tourism actors in practice the nature of tourism demand and adapt accordingly.

This paper establishes a new model of foreign tourist demand in the Mediterranean region (Croatia, Cyprus, France, Greece, Italy, Portugal, Spain and Slovenia) using panel data and the generalized method of moments (GMM).

One of the main conclusions of the study looking at the period from 2010 to 2020 is the significant value of the lagged dependent variable (0.629), which shows that habitat persistence is important to explain the tourist demand in selected countries from EU Med alliance. This result can be

interpreted as high consumer loyalty to the destination and/or as an important word-of-mouth effect in the consumer's decision to favor the destination. Also, according to the survey results, we have a positive relationship between tourist demand and GDPPC. Furthermore, the increase in the level of economic development implies the improvement in terms of infrastructure, facilities, and security that attracts tourists to come to the host countries. Trade openness has a positive impact on Tourism demand, So that by a 1% increase in trade openness in selected EU Med countries, the incentive to travel to these countries has increased, and as a result, tourism demand will increase by 0.001%. The coefficient for terrorism in destinations shows that the 1% growth of terrorist activities in selected countries (expressed by the global terrorism index) affects the demand for tourism products in such a way that in this case, it falls by 0.10%.

Based on the analysis of the impact of the Covid-19 pandemic on selected EU Med countries, we can conclude that selected EU Med countries in all segments of tourism achieved a large decline and losses in 2020. It follows that in the field of tourism, in the next few years, the battle for each guest will be very fierce because selected EU Med countries are not the only ones returning to the tourism scene. If we work on good communication with the guest and provide an interesting and attractive offer, in the fight for the market, we can expect to come out as winners in the next few years. How and how quickly selected EU Med countries will recover from the pandemic crisis remains to be seen. Unfortunately, we cannot know what else awaits us in the fight against the coronavirus. Many questions, such as – what the world will look like one day, whether we will be able to return to what was once considered "normal," what this crisis will bring us in the future, in which areas rapid changes will be needed and what kind of consequences await us "- he will look for his answers for some time to come. Finally, the results of the empirical analysis also revealed that all countries in the Mediterranean region need to allocate resources for the continuous improvement of the quality of their infrastructure and the services offered, regardless of their position in the ranking. Policymakers should integrate transport policies in tourism planning, especially in countries with weak infrastructures. Thus, for instance, it is necessary to avoid strikes, which entail endless and tedious delays and create a bad image for the country at the international level, decreasing potential future visits to that particular country. Countries like Croatia, Cyprus, and Slovenia, among others, should enhance their primary focus of attraction, unknown places that give them a unique appeal. They are countries with many unexploited natural and cultural resources and, to some extent, exotic places for visitors from more cosmopolitan areas. Policymakers must focus their competitive strategies on improving these places' marketing, which would help to sell tour packages with rich natural content like the Plitvice Lakes National Park in Croatia (UNESCO World Heritage site), or other places in Slovenia like Like Bled.

This study does not have significant limitations, but their removal will contribute to more robust results. First, there is no data for the selected determinants over a longer period, and we have some observations missing in the selected period. Secondly, the selected variables fail to catch the effects of supply factors as potential determinants in explaining tourism inflows in selected EU Med countries. Thirdly the impossibility of including a larger number of countries in the research sample and a longer period of time for which hypotheses were empirically tested; Fourthly the need to investigate in more detail the social preferences of the broadcast market and define additional variables that explain it; Fifthly it is necessary to define another proxy variable that can replace the investment variable in research and development, and which can be significant in determining the emissive tourist demand; Sixthly eventual methodological shortcomings that arise from the chosen estimator of dynamic panel models in empirical hypothesis testing.

The future avenues of research on the phenomenon of tourist demand should invest the impact of other potentially relevant determinants, which are not strictly economic (related to quality, experience, appreciation of culture, nature, safety, and human resources), which may allow finding more determinants on tourism demand. Also, further researchers can use methods such as two- or three-least squares or panel cointegration models. Future research on this topic for a more detailed

analysis of the impact of investment on tourism demand should include the observation and investments such as construction, infrastructure, investment in human resources, and many others.

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