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PANEL ANALYSIS ON THE TOURISM SECTOR OF SELECTED MEDITERRANEAN COUNTRIES

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Abstract: The tourism industry is a dynamic sector for the economies of Mediterranean countries. The aim of this study is to investigate the relationships between tourism revenues, employment rates and economic growth of two selected Mediterranean countries in the 1997-2020 period. In this study, panel data analysis method was used. In the analysis of panel data regression models, it was seen that the random effects model was appropriate. The model was estimated with Driscoll/Kraay resistant standard estimators developed against deviations from the assumptions. The results show that there is a positive relationship between tourism revenues, employment rates and economic growth in the two Mediterranean countries. Accordingly, an 1% increase in tourism revenues increases economic growth by 0.54%, while a 1% increase in employment rates increases economic growth approximately 1.5 times.

Key words: tourism sector, employment, tourism receipts, panel analysis, Mediterranean Countries

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INTRODUCTION

Tourism is one of the leading sectors of the world economy. Tourism plays a vital role in countries' economic growth (Abouseada et al., 2023; Horváth et al., 2023). The efficacy of increasing tourism in promoting economic growth is not yet established. Using the cointegration and Granger causality tests, researchers Balaguer and Cantavella-Jordá (2002) for Spain, Gunduz and Hatemi-J (2005) for Turkey, Belloumi (2010) for Tunisia, and Tang and Abosedra (2014) for Lebanon discovered that tourism and economic growth are likely to be cointegrated and that tourism Granger-causes economic growth.

The tourism sector has a considerable impact on the social and economic development of nations. From an economic standpoint, the tourism sector unites and attracts a large number of producers and consumers while also facilitating the knowledge and interaction of nations and people in terms of natural, social, and cultural factors. Consumption of commodities and services created to satisfy people's needs necessitated their replacement to satisfy new demands, which in this case resulted in higher revenues (Dilber, 2007). A large employer and labor-intensive industry, tourism. It is one of the top employers worldwide for a variety of skilled jobs, allowing young people, women, and migrant workers to enter the workforce quickly (ILO, 2014). The tourist and lodging industries provide millions of people with multiple employment opportunities in a range of businesses, including accommodation, food and beverage (restaurants, dining halls, cafés, fast food outlets, bars, nightclubs, hostels, etc.), and tourism (Aynalem et al., 2016). Employment opportunities are generated in all three of these ways thanks to tourism (Vanhove, 1981; Mathieson and Wall, 1982).

According to the findings of various research, the tourist industry in developing nations is viewed as a low-wage sector (Gartner and Cukier, 2011; Thomas, 2014). The tourist and hospitality industries are often recognized for their low hourly salary rates, lengthy working hours of 50 hours per week, no breaks during peak season, and overtime without additional pay (Aynalem et al., 2016). A bigger part of the income in a labor-intensive sector like tourism and hospitality is likely to come from wages and salaries paid to employees in occupations that either directly meet the demands of visitors or indirectly profit from their spending. It is unknown if employment in the tourist industry increased as a result of job losses in the forestry sector. Yet, there may also be connections between employment in the forest industry and employment in tourism. For instance, if tourism trends well in a region, this might perhaps support the development of hotels and cottages (Lundmark et al., 2010). The majority of the study that has been done on the topic of quality of life and tourism has focused on the unidirectional link between the two, arguing that tourism numbers of visitors and earnings have a substantial impact on quality of life (Sarpong et al., 2020). Many people believe that tourism should be treated as a regional development firm because of its capacity to drive economic growth both locally and distantly (Hall and Page, 2006; Yang, 2012).

Using panel data estimate, Gökoval and Bahar (2006) looked at how much tourism contributes to economic growth in Mediterranean nations. In a research published by Hilmi et al. (2015) examined the various effects of ecotourism on employment and income in Mediterranean nations. The Mediterranean coastline is the world's top travel destination due to its abundance of natural resources, including stunning beauty, a welcoming environment for tourists, major wildlife, etc.

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Particularly for the economies on the northern side of the Mediterranean, the rise of the tourist sector has brought about economic improvements (Hilmi et al., 2015). The tourist-favored places in Mediterranean nations are safe, just as in other nations. The growth of tourism is particularly inhibited in nations where there is terrorism and political unrest. The regional impacts of terrorism on tourism in Mediterranean nations were examined by Drakos and Kutan (2003). They revealed that terrorist attacks that had place in Turkey, Greece, and Israel between 1991 and 2000 could have been instantly replaced by neighbors. Enders and Sandler (1991) discovered that terrorist attacks had a detrimental impact on the number of tourists visiting Spain. They suggested that a country's engagement in security and stability concerns had a detrimental impact on tourism.

Both the growth of tourism and the development of regions are inherently more complicated than they appear to be in statistical models. This indicates that some significant concerns are being overlooked in this discussion. Statistical models explain far more than any variance in employment change, which raises problems for the direction of future study (Lundmark et al., 2010). Yet, Mediterranean economies require a tourism development plan that integrates economic growth and environmental conservation (Hilmi et al., 2015). Since the tourism potential of Mediterranean countries is very high, there are many studies in this field (Dimitrić et al., 2019; Ren et al., 2019; Pérez-Rodríguez et al., 2020; Yıldırım et al., 2021; Bayar et al., 2023). In their study, Dimitrić et al. (2019) investigated the factors that influence the profitability of hotel enterprises across a range of Mediterranean nations. The examination of panel data models fitted with an extensive dataset spanning from 2007 to 2015 revealed that cash flow oriented toward operating income positively and statistically significantly impacted profitability. In an empirical study conducted by Ren et al. (2019), the researchers assessed the influence of tourism income on economic development and environmental degradation in a sample of eight Mediterranean countries. An examination of yearly data spanning from 1995 to 2014 has unveiled that the socioeconomic status of visitors to a nation significantly influences the progress of its economy across all sectors.

Pérez-Rodríguez et al. (2020) utilized a dynamic panel data model to investigate the extent to which tourism contributes to economic development. The analysis, which utilised quarterly GDP and tourist arrival series data from 1995 to 2019, for fourteen European countries concluded that the positive long-term correlation between tourism and economic growth is relatively tenuous. The study by Yıldırım et al (2021) tested the effects of the number of tourists and tourism revenues on carbon emissions for Mediterranean countries. Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, and Israel were among the 15 Mediterranean nations from which annual data were obtained between 2001 and 2017. Spain, Tunisia, and Turkey were also included in the collection. Carbon emissions are reduced by visitor arrivals and tourism revenues, according to the findings of the study. In their study, Bayar et al. (2023) examined the impact of terrorism, corruption, and rule of law on the tourism industry in fourteen Mediterranean-bordering nations. The findings of the causality analysis indicate that the mitigation of corruption has a transient yet noteworthy effect on the tourism industry. Cointegration analysis revealed that tourism in Albania, Algeria, Egypt, and Tunisia was adversely affected by terrorism, while tourism in Bosnia and Herzegovina, Greece, and Italy was positively impacted by reductions in corruption. Based on all this, the aim of the study is to investigate the relationships between tourism revenues, employment rates and economic growth of two selected Mediterranean countries in the period 1997-2020. In this example, analyzes were conducted using information from two Mediterranean countries.

LITERATURE REVIEW

1. Tourism growth

Using data from the 1960s to 2000s, Dritsakis and Athanasiadis (2000) conducted causality tests for Greece using the VAR model. Both the growth of tourism and the development of regions are inherently more complicated than they appear to be in statistical models. This indicates that some significant concerns are being overlooked in this discussion. Statistical models explain far more than any variance in employment change, which raises problems for the direction of future study (Lundmark et al., 2010). Özdemir and Öksüzler (2006) used the Johansen approach and VECM in Turkey's 1963–2003 sampling period to examine the causal link between tourism profits and economic development. Using the Toda-Yamamoto causality technique, Kızılgöl and Erbaykal (2008) investigated the link between tourist receipts and economic development for Turkey between 1992 and 2006. Aslan (2008) conducted in-depth research on Turkey using Johansen cointegration and Granger causality tests with error correction to analyze the causation link between tourism and economic development during the period of 1992 to 2007. Moreover, Kaplan and Çelik (2008) discovered that in the case of Turkey, an increase of one percent in tourism results in an increase in economic growth that is only three-tenths of one percent in the long term.

The findings of the study by Öztürk and Acaravci (2009) demonstrate that real GDP and foreign tourism do not have a particular long-term or equilibrium connection. Ztürk and Acaravci (2009) looked studied the long-term correlation between Turkey's real GDP and foreign travel from 1987 to 2007. The literature has also explored the relationship between rising relative pricing, economic growth, and tourism growth (Risso et al., 2010). In a research by Katircioglu (2010), yearly data from 1960 to 2007 were used to assess tourism-induced growth in Singapore. The literature has also explored the relationship between rising relative pricing, economic growth, and tourism growth (Risso et al., 2010).

Arslanturk et al. (2011) studied the causal association between tourist revenues and GDP in Turkey utilizing yearly data for the period 1963-2010 and employing Granger-based vector ECM. Their research focused on the relationship between tourism revenues and GDP in Turkey (VECM). A study conducted by Gautam looked at the relationship between tourism and economic development in Nepal, and the findings were interesting (2011). The authors Suresh et al. (2011) conducted research on the topic and studied the connection that exists between India's rising standard of living and its participation in global commerce. Samimi et al. (2011) used the P-VAR method to study the causality between economic growth and the development of tourism in developing nations over the time period of 1995-2009. They

focused on the period between 1995 and 2009. Using yearly time series data from Kenya, Kibara et al. (2012) investigated the dynamic link between the expansion of the tourist sector and economic growth. For Germany, Italy, Spain, Greece, Austria, England, Cyprus, the Netherlands, Portugal, and Sweden, Antonakakis et al. (2013) used a vector autoregressive model (VAR) to analyze the link between tourism and economic growth. Aslan (2014) used the panel Granger causality tests, which were recently created for the 1995–2010 period in Mediterranean nations, to examine the causative link between tourist development and economic growth. The long-term and short-term link between tourism and economic development in Sri Lanka was evaluated by Mustafa and Santhirasegaram (2014) in a research that used yearly data spanning the period of 1978-2011. The study focused on the island nation.

2. International tourism receipts

One of the most lucrative service sectors in the world, international tourism is also one of the most rapidly expanding (Suresh and Senthilnathan, 2014). The sales, earnings, and tax revenues that are brought in by tourists contribute to the general rise of income in the nations that host tourists (Fawaz and Rahnama, 2014). Part of this cash goes toward the repayment of inputs of production by local firms including salaries, rent, and interest payments, while some of it goes toward the distribution of dividends (Brida et al., 2016). In addition to its direct influence on income, the government's increased investment in tourism results in the creation of income multipliers (Suresh and Senthilnathan, 2014).

When there is adequate economic growth and a higher level of total income, economic inequality will diminish, and income distribution will become more balanced. Because of this, the revenue that is generated by tourism is very crucial for all nations, but particularly for those that rely heavily on the industry. According to the findings of a study conducted by Lorah and Southwick (2003), the preservation of the natural environment is linked to higher levels of income and employment in the western region of the United States, which has a beneficial effect on both domestic migration and international tourism. Using panel data from 42 African nations, a research by Fayissa et al. (2008) found that the profits from the tourist sector considerably contributed to the economic growth of African countries. A higher-than-average percentage of the population is employed in the tourist business in regions near to national parks (i.e. within 15 km), according to preliminary surveys conducted in Swedish mountain municipalities (Lundmark, 2009). Granger and Hsiao causality tests were used in an investigation of the causation association between revenue from tourism and GDP in Iran over the period of 1968-2007 that was carried out as part of a research that was carried out by Assadzadeh and Nasab (2012). According to the findings of a research conducted by Kreishan (2011) in Jordan between the years 1970 and 2009, there is a long-term positive and unidirectional relationship between tourism revenues and economic development. A research that was conducted by Aleemi (2015) examined the influence that tourist earnings had on the overall rate of economic development in Pakistan between the years 1981 and 2013. The links between tourism competitiveness, tourist arrivals, and tourism revenues to population diversity were looked at in a study undertaken by Bacsi (2017).

In a research published by Hesami et al., (2020) the effect of oil prices on tourist income in nations that significantly depended on crude oil exports from 2000 to 2017 was investigated. According to McAleer et al. (2005) and Pérez-Rodriguez and Santana-Gallego (2000), international tourist profits are acknowledged as a substantial source of income for both smaller island economies and bigger economies that are heavily dependent on tourism.

3. Employment in tourism

The capacity of a country to reduce the development gap it has with other nations and to find solutions to economic difficulties such as unemployment, balance of payments deficits, and financial and monetary macroeconomic instability is essential to the nation's development and economic progress. In this regard, the tourist industry is seen as an important contributor (Hakan et al., 2015). According to Burkart and Medlik (1981), it is challenging to properly predict how tourism would affect employment. Furthermore, according to Bahar and Kozak (2008), the high employment rate in the tourist industry is characterized by the prevalence of low-paying, transitory, part-time work, and seasonal intensity.

The significance of the tourist sector in generating female employment was examined in research by Obadic and Maric (2009). The tourist industry typically only offers temporary, low-paying jobs. Yet it should also be obvious that many people in the sector, particularly women, would be unemployed without tourism. Women can enter and leave the tourist business very readily since many occupations simply demand basic, highly transferrable skills (Obadi and Mari, 2009). In research done by Akkemik (2012), two social accounting matrices (SAM) modeling methodologies were used to analyze the impact of foreign travel on the Turkish economy. Snyman (2012) looked at how jobs in the tourist industry contribute to eradicating poverty in Namibia, Malawi, and Botswana. According to the findings of a research that was conducted by Adiyia et al. (2017), work in the tourist industry within the hotel sector generates a relatively low income when compared to other non-agricultural industries. The impact of specialization, urbanization, and diversification externalities on the growth rate of tourist employment in Brazilian towns between 2006 and 2015 was examined in research by Ribeiro et al. (2018).

RESEARCH METHODOLOGY

1. Purpose and Data Set

The urban geography of tourism destinations is always changing (Brito and Zarrilli, 2023). In this research, it was tried to determine the relationship between the economic growth in Italy and Greece, which are selected Mediterranean countries, and the tourism sector of this country. The aim of this study is to investigate the relationships between tourism revenues, employment rates and economic growth of two selected Mediterranean countries in the 1997-2020 period. In other words, it is examined whether there is an effect between the economic growth in the countries within the scope of

the research and the earnings that the tourism sector of this country brings to the country and the employment rates. In this direction, to use suitable variables and models, the literature has been examined and the variables and models used have been tried to be seen. The data set consists of annual data for the years 1997-2020. Logarithmic values of economic growth and tourism revenues used in the study are included in the analysis.

2. Analysis Method

The methodology of the study is shown in Figure 1. In studies conducted in the literature, panel data models are generally used in two dimensions, unit, and time. Since two-dimensional panel data models with single unit or single time effects do not meet the analysis needs in some cases, models with more than two time and unit dimensions were used and these models were named "Multidimensional Panel Data Models". Multidimensional panel data models provide economic results in different and broad perspectives by using a rich and high - quality data set. In multidimensional panel data models, as in this study, years are taken as time dimension, while countries are considered as unit dimensions. In the case of one time and two-unit dimensions, the three-dimensional panel data model can be represented as in Equation 1. Here, μ, γ denotes unit effects and λ stands for time effects, respectively. α is the constant term, X is the independent variables matrix, Y and u are the dependent variable and error term vectors, respectively. The two units under consideration are nested within each other (Yerdelen Tatoglu, 2016).

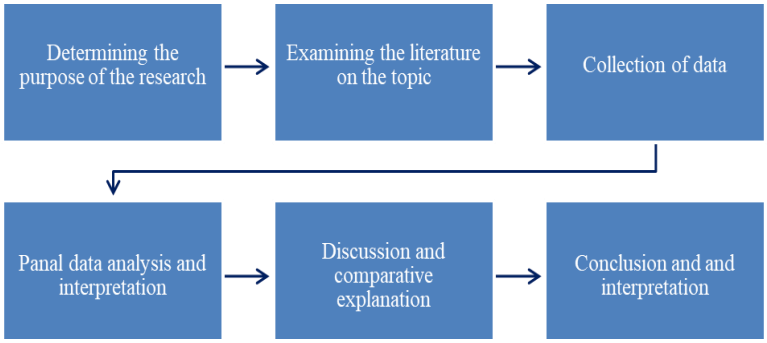

Figure 1. Research flow chart (Source: developed by authors)

$$Y_{ijt}=\alpha+\beta X_{ijt}+\mu_i+\gamma_i+\lambda_t+u_{ijt} \quad (1)$$

$$(i=1...N,\ t=1...T,\ j=1...M)$$

Multidimensional panel data models, like two-dimensional models, are studied under fixed and random effects. Multidimensional models, which are considered with the fixed effects assumption, can be used as shadow variable least squares estimator and in-group estimator, as in two-dimensional panel data models. In the multidimensional random effects model, generalized least squares and maximum likelihood methods are used. In panel data analysis, the relationship between the variables, the error terms in the regression equation and the assumptions about the properties of the constant terms; It can be tested using three models: random, fixed, and joint effects. In this study, the relationship between these variables, random and fixed effects were estimated using panel data techniques. The main hypothesis of the fixed effects model is that the differences between economic units can be captured by the differences in the fixed term and individual effects are related to the independent variables. From this point of view, it is accepted that each economic unit in the panel has a fixed term that does not change with time and shows the effects of the variables excluded from the model (Greene, 2000; Stock and Watson, 2007). In the random effects model, which can also be called the error components model, the constant term is accepted as a random variable, unlike the fixed effects model. In other words, in this approach, it is accepted that individual differences between economic units occur randomly (Gujarati, 2003).

After the fixed and random effects model analysis in panel data applications, the path followed in the application is to decide which of these two models will be more appropriate. Appropriate model selection can be made with the Breusch-Pagan (1980), Hausman and Rhausman tests. In this study, which of the panel data approaches is appropriate was decided by the Hausman test? In the Hausman test, it is tested whether the error components are related to the independent variables in the model (Gujarati, 2003; Maddala, 2001). If the H_0 hypothesis, which claims that there is no relationship between εi and the independent variables (X_i), is rejected, the fixed effects model is decided, and if not, the random effects model is the appropriate model. In the study, which analyzes the relationship between economic growth, tourism revenues and employment rates, annual data covering the period 1997-2020, from two selected Mediterranean countries, were used.

ANALYSES AND RESULTS

Before the analysis, the summary statistical table of the data set was analyzed. Logarithmic values of economic growth and tourism revenues are considered in the analysis. After there were no problems with the statistical table between the data set, the necessary model for analysis was established.

As stated in Equation 1, LGDP is the dependent variable in the study and β_0, β_1Ltourismrevenu, $\beta_2$employmentrate and μ are the independent variables. The model for the analysis is as described in Equation 2.

$$LGDP=\beta_0+\beta_1 Ltourismrevenue+\beta_2 employmentrate+\mu \quad (2)$$

LGDP– logarithmic value of the standard measure of the value added created through the production of goods and services in a country during a certain period; β_0 – is a constant term; β_1Ltourismrevenue – refers to tourism revenues; $\beta_2$employmentrate – shows unemployment rates; μ – represents the unit effects present in the model.

After determining that there are unit and/or time effects as a result of the LR test, it is necessary to decide whether the current effect is constant or random (Table 1). One of the most important differences between fixed and random effects models is whether unit effects are correlated with independent variables. If there is no correlation between them, the random effects model is more effective and valid. In the Hausman test: "H_0= There is no correlation between explanatory variables and

unit effect". Therefore, since the random effects estimator is more efficient, its use will be appropriate: "H_1=There is a correlation between the explanatory variables and the unit effect". As a result of the Hausman and Rhausman tests, it should be preferred whether the fixed effects model or the random effects model is consistent (Table 2). In other words, Hausman and Rhausman tests show that the unit effect is constant. Therefore, the analysis is a model with a one-way effect.

Table 1. Likelihood Ratio (LR) Test Results

	LR Statistics	Probability Value
Unit and Time Impact	96.77	0.0000
Unit Impact	73.18	0.0000
Time Effect	2.78	0.0529

Table 2. Hausman and Rhausman Test Results

Test Name	Test Statistic	Probability Value
Hausman	37.70	0.0000
Rhausman	1.92	0.4130

The selection between fixed-effect and random-effect models was also made by Hausman and Rhausman test. According to the Hausman test statistic result, the assumptions of the random effect model are not met, and in this context, the analysis should be continued with the fixed effect model. The Rhausman test, on the other hand, is more reliable than the Hausman test and shows the final decision about which model should be selected. According to the Rhausman test results, the one-way random effects model is valid.For the autocorrelation assumption, Durbin Watson and Baltagi-Wu test of Bhargava et al. (1982) was applied. In the random effects analysis, since the units come from random attraction, it is not expected to find a correlation between units (Yerdelen Tatoglu, 2016). Table 3 shows the Durbin Watson and Baltagi-Wu test results of Bhargava et al. (1982). The fact that the values in the table are close to two means that the null hypothesis suggesting that there is no first-order autocorrelation cannot be rejected. However, since both test results are less than two, the H_0 hypothesis is rejected. It is understood that there is a problem of varying variance in the model.

Table 3. Durbin Watson and Baltagi-Wu's LBI Test Results

Test Name	Test Statistic
Durbin Watson	0.65222378
Baltagi-Wu`nun LBI	0.89392572

Table 4. Test Results of Pesaran and Friedman

Test Name	Test Statistic	Probability Value
Pesaran CD	3.677	0.0002
Friedman	39.400	0.0000

Table 5. VIF Criteria Results

Variable	VIF	1/VIF
Linternational tourism receipts	1.02	0.980529
Employment rate	1.02	0.980529
Mean VIF		

In the study, cross-section dependence was tested with Pesaran CD and Friedman tests. Cross-section dependency: It was tested with Pesaran CD and Friedman tests, which can be applied to both fixed and random effect models. The H_0 hypothesis states that there is no cross-sectional dependence, and the H_1 hypothesis states that there is a cross-sectional dependence. According to the results of the analysis, there is a cross-section dependency in the study. The test results regarding the cross-section dependency are presented below with the help of Table 4. According to the cross-section dependency test findings, H_0 hypothesis is rejected in both Pesaran CD test and Friedman test results and there is cross-section dependency. Another factor that prevents the results from being reliable in regression analysis is the high correlation of explanatory variables with each other. The existence of this situation, which is expressed as a multi-correlation problem, is investigated with the VIF multi-correlation test. In the test in Table 5, the VIF value is at the accepted level.

Driscoll/Kraay results for panel causality test are presented with the help of Table 6. The test results show that the direction of causality is from tourism revenues and employment rates to economic growth. The test results show that the model is significant at the 95% level. In terms of Italy and Greece, the effect of both variables on economic growth is positive and significant. According to the results of the analysis, a 1% increase in tourism revenues will have a 54% effect on economic growth. Likewise, a 1% increase in employment rates will have a 1.5-fold effect on the economic growth of these countries.

Table 6. Driscoll/Kraay Estimation Test Result

R^2	Number of Observations		Prob	
0.5312	48		prob> 0.0055	
LGDP	**Coefficient Values**	**Drisc/Kraay Resistive Standard Errors**	**T statistics**	**P>|t|**
Linternational tourism receipts	.5445245	.1762758	3.09	0.005
Employment rate	1.477739	.5919823	2.50	0.020
Fixed Coefficient	3.724994	2.239045	1.66	

3. DISCUSSION AND CONCLUSION

The tourism industry is a dynamic sector that is responsible for bringing about changes in the economic structure, social structure, and cultural structure of countries. The money spent by visitors brings a return in the form of cash to the businesses and individuals who supply the goods and services that are consumed by tourists. This helps to expand job opportunities in areas that see a rise in tourism-related activity. Tourism is beneficial to society in terms of the development of social and cultural values since it affords individuals from a variety of nations and cultures the opportunity to interact with one another. The nations that have a coastline on the Mediterranean may attribute a significant amount of their recent economic growth to the contributions made by the tourism industry. The countries of the Mediterranean region stand before us as the nations that take home the lion's share of the economic benefits that come from tourism across the world.

Determining the influence that tourism has on the rate of economic expansion in these nations might, in this context, be an indication of the political and social position that should be implemented. In the body of academic research, there are a great number of empirical studies that investigate the links between tourism and economic expansion.

According to the findings of the research that was carried out by Dritsakis and Athanasiadis (2000), tourism-oriented growth is encouraged, and there is a long-term cointegration relationship between tourism and economic growth. These findings were discovered as a result of the study that was carried out. It was discovered via the research conducted by Balaguer and Cantavella-Jorda (2002) that the earnings generated by foreign tourism have a beneficial impact on the expansion of the Spanish economy. As a consequence of the research that Gunduz and Hatemi (2005) carried out, they came to the conclusion that international tourism is a unidirectional causal factor in the progression of economic growth.

Because of the findings of the research that Özdemir and Öksüzler (2006) carried out, it has been demonstrated that there is a short-term as well as a long-term unidirectional causation between tourism and GDP. According to the findings of the research that was conducted by Gokovali and Bahar (2006), the contribution of tourism to the expansion of the economies of Mediterranean nations is only approximately 0.1 percent for every 1 percent rise in the number of tourists. Because of the findings of the research that Kizilgol and Erbaykal (2008) carried out, it has been established that there is a unidirectional causation extending from economic growth to the income generated by tourism. As a consequence of the research that was carried out by Aslan (2008), it was determined that the TLG hypothesis may be applied to Turkey with success. According to the findings of the research that was carried out by Assadzadeh and Nasab (2012), there is a long-term positive association between these factors and revenue from tourism. This was discovered as a consequence of the study that they carried out.

According to the findings of Arslanturk et al. (2011), the income generated by tourism had a beneficial impact on GDP in the early 1980s. The findings indicate that there is no Granger causality between the series of variables when they use VECM to analyze the data. As a result, it has been shown that the NC hypothesis may be applied to Turkey with success. As a result of the research that was carried out by Gautam (2011), it was found that the cointegration test for the determination of the long-run relationship and the error correction method for the short-run dynamics were both performed, and it was found that it was determined that tourism (represented by foreign exchange income) causes economic growth in both the short run and the long run. This was discovered as a result of the study that was carried out. According to the findings of the research that was carried out by Samimi et al. (2011), there is a positive long-term association, as well as a bidirectional causation, between economic growth and the development of tourism. This relationship is beneficial.

According to the findings of a research conducted by Snyman (2012), work in tourism in rural areas serves to include inhabitants in the market economy, and the revenue that families receive from employment in tourism allows them to invest in assets, education, and investment. According to the findings of the research conducted by Akkemik (2012), the elasticity of international tourism's impact on GDP is relatively low, and the impacts of foreign tourist consumption on domestic production, value added, and employment are small. These findings were found to be the case. As a consequence of the findings of the research conducted by Aslan (2014), the EDTG hypothesis was validated with regard to the countries of Spain, Italy, Tunisia, Cyprus, Croatia, Bulgaria, and Greece. Yet, the TLG theory is supported by the data for Turkey and Israel, the BC hypothesis is accepted for Portugal, and the NC hypothesis is supported by Malta and Egypt.

According to the findings of the research that was carried out by Aleemi (2015), the income generated by tourism does, in fact, contribute significantly and favorably to the expansion of the national economy. According to the findings of a study conducted by Adiya et al. (2017), non-management tourism fees in South Africa are sufficient to keep a family above the line of extreme poverty, but these fees are still considered to be low in comparison to the standards of tourism resource markets. According to the findings of the research that was carried out by Ribeiro et al. (2018), specialization, urbanization, and diversification externalities all have a favorable influence on the employment growth rate in the tourist industry. According to the findings of the research that was carried out by Hesami et al. (2020), oil prices and tourism revenues are cointegrated, there is a long-term equilibrium relationship between the two, and there is a unidirectional Granger causality from oil prices to tourism revenues. These findings were discovered as a result of the study that was carried out.

According to the findings of this research, there is a correlation between tourism and economic expansion that is favorable. The approach of panel data analysis was utilized in this research project to explore the impact that tourism and employment rates had on economic growth in two Mediterranean nations over the period of 1997-2020.

According to the findings of the research, a rise in tourism income and an increase in employment rates both have a significant and favorable impact on the expansion of the economy. The fact that it can demonstrate its economic value in a shorter amount of time when compared to other industries is the most significant quality that sets it apart from those industries. The beneficial impacts of an effective advertising and marketing campaign may be felt after only a short period of time has passed. Yet, this aspect of tourism may be related to the economy, politics, diplomacy, natural disasters, and other related topics. As a result of this, there is a school of thought that maintains that it would be unethical for a nation to devote all its economic resources to the tourist industry. Under the parameters of this discussion, it would be more beneficial for the tourist sector to continue its growth by taking on a supporting role for the industry and farm sectors. For the purpose of this research, data from nations located in the Mediterranean region, which is the most advanced geographical area in the world in terms of its tourist infrastructure, were utilized. As the scope of the study is broadened to include more nation groupings as well as data pertaining to tourism, it is anticipated that results that are more complete with regard to the economic benefits of tourism would be acquired.

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