

INVESTIGATING THE IMPORTANCE OF SPORTS ECONOMICS AND ECONOMIC GROWTH ON TOURISM: AN EMPIRICAL STUDY OF EU COUNTRIES

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Abstract

The global sports economics has been growing at a rapidly in recent years. With the increasing popularity of sports, the tourism activities of the countries are diversifying. Especially countries that can bring major sports organizations to their countries can benefit greatly from this. The main motivation of this study is to clarify the importance of sports economics. The aim of this study is to investigate the impact of sports tourism on tourism revenues in EU member states for the period 2001-2022. As a result of the cointegration analysis, it was determined that the variables were cointegrated. The cointegration coefficient estimator was used to estimate the elasticity coefficients of the variables. In the analysis results, the elasticity coefficients of economic growth and sports economics are positive and statistically significant. Panel VECM analysis was used to determine the causality relationship between the variables. In the causality findings, economic growth is the causal of tourism receipts and tourism receipts is the causal of sports economics. According to the empirical findings, it is recommended that policy makers implement policies that will revitalize sports economics by investing in the country's sports infrastructure.

Keywords: Sports Economics, Economic Growth, Tourism, EU Countries.

Jel Codes: E60, L83, O52.

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SPOR EKONOMİSİNİN VE EKONOMİK BÜYÜMENİN TURİZM ÜZERİNDEKİ ÖNEMİNİN ARAŞTIRILMASI: AB ÜLKELERİ ÜZERİNE AMPİRİK BİR ÇALIŞMA

Öz

Küresel spor ekonomisi son yıllarda hızla büyümektedir. Popülaritesi her geçen dönem artan spor ile ülkelerin turizm faaliyetleri çeşitlenmektedir. Özellikle büyük spor organizasyonlarını ülkelere getirebilen ülkeler bundan çok fazla yarar sağlayabilmektedir. Spor ekonomisinin önemini belirginleştirebilmek bu çalışmanın temel motivasyonudur. Bu çalışmanın amacı AB üyesi ülkelerinde spor turizminin turizm gelirleri üzerindeki etkisini 2001-2022 dönemi için araştırmaktır. Eşbütünleşme analizi sonucunda değişkenlerin eşbütünleşik olduğu tespit edilmiştir. Değişkenlerin esneklik katsayılarını tahmin edebilmek için eşbütünleşme katsayı tahmincisi kullanılmıştır. Analiz sonuçlarında, ekonomik büyüme ve spor turizminin esneklik katsayıları pozitif ve istatistiki olarak anlamlıdır. Değişkenler arasındaki nedensellik ilişkisini tespit edebilmek için panel VECM analizi kullanılmıştır. Nedensellik bulgularında, ekonomik büyüme turizm gelirlerinin, turizm gelirleri spor ekonomisinin nedenselidir. Elde edilen ampirik bulgulara göre, politika yapıcıların ülkenin spor altyapısına yatırımlar yaparak, spor turizmini canlandıracak politikalar uygulaması önerilmektedir.

Anahtar Kelimeler: Spor Ekonomisi, Ekonomik Büyüme, Turizm Gelirleri, AB Ülkeleri.

Jel Kodları: E60, L83, O52.

1. INTRODUCTION

Tourism has been increasingly important in recent decades due to the ease of development of recreational and economic resources. Developing Tourism has brought many advantages such as increased employment, increased per capita income, and increased awareness of the protection of cultural heritage. (Shahzad et al., 2017; Wang et al., 2020). Adding to these effects, tourism also contributes positively to the balance of payments, increases the welfare level of the country, inflows foreign exchange into the country, and increases government revenues. Tourism has grown rapidly in recent years and has become one of the world's largest industries. Tourism transfers income from high-income countries to low-income countries. Thus, the increase in the level of development between countries can be prevented (Brida and Risso, 2009; Tang and Tan, 2013; Paramati et al., 2017). In addition, tourism can make positive contributions to social peace (Bayar, 2024).

Due to the restrictions caused by COVID-19, the global tourism sector contracted by 50.4% in 2020 compared to the previous year. Before COVID-19, tourism contributed 9.2% to the economies of European countries. With COVID-19, there was a 47.1% decrease in the tourism sector and its contribution to the economy of European countries decreased to 5.2%. There was a 28% increase in 2021 compared to the previous year. In terms of employment, it declined by 4.7 million from the previous year to 33.1 million in 2020. According to tourism growth forecasts in European countries, an average of 3.3% annual growth will be realized until 2032. This rate is more than twice the growth average of regional countries (1.5). It is

estimated that eight million new jobs will be created in 2032 compared to 2022 (WTTC, 2022).

Sports economics is an increasingly important factor for countries. One of the aims of this study is to focus on the importance of sports economics. The development of sports economics provides many advantages to countries. It will be possible to stand out in international competition, attract investors' attention and attract international funds to the country, and positive contributions will be made to people's welfare with the development of physicians and hospitals that can manage athlete performance and injuries (Lin et al., 2023). In addition to these, the economic perspective will develop, and new employment opportunities will be provided in many areas such as sports marketing, stadium construction, coaching and other hardware business lines (Wu, 2024).

Sports is a discipline in which the economic aspect is revealed with scientific methods (Salgado-Barandela et al., 2017). Sports economics is quite developed in developed countries such as the USA and EU countries. However, sports economics is also needed in developing countries (Zhou et al., 2023). Sports economics has an important place in local and regional development. Especially with large organizations, urban renewal and rural development can be realized rapidly. Since sports economics has national and international advertising power, it is also an element that increases tourism (Răzvan et al., 2020).

Sports economics is an increasingly important factor for countries. Emphasizing the importance of sports economics is one of the aims of this study. It predicts that sports economics in the world will grow by 890.9 billion USD from 2020 to 2025, and 57% of this growth will originate from the European market. Many sporting events are organized in Europe. This has made Europe the main market for sports economics in the world. United Kingdom, Germany and Spain stand out as key leading countries for sports economics in Europe. Sports economics in Europe is growing with many sports organizations. Such organizations have loyal audiences, and a high number of attendees participate in these organizations. The high number of spectators depends on the increasing income level of the household and the variety of activities. As the diversity in the number of events increases, the income level from sports economics also increases Technavio (2021). International sports activities are an element that increases tourism receipts. In countries where sports activities are carried out, the tourism sector is utilized, including hotels, entertainment sector, restaurants and various businesses (Chang et al., 2020).

Sports economics has become an increasingly important sector with the efforts of governments, researchers and non-governmental organizations. Sports economics increases its share in the tourism market and shows its acceptance at the international level. Sports economics includes two types of travel: i) Active sports holidays such as scuba diving, golf, etc.; ii) Active sports holidays such as sports events and sports museums etc. Thus, these activities include situations where sports and tourism are together (Ritchie, 2007). Depending on the popularity of the type of sport, it can provide significant benefits for the region where the event is held. The most important impact of sports events is on tourism and the economy (Perić, 2018). Sustaining tourism through sporting events can be achieved with the support of local people (Chang et al., 2020).

The role of recreational and sports services in the development of tourism is undeniably important. These activities are important in planning tourism services and facilities in accordance with these activities. The sports activities that people prefer also to affect how tourism develops. Sports economics are driving the tourism industry with each passing day. The relationship between sports and tourism has now begun to integrate. This concept, called sports economics, is a combination of sports and tourism and has become an economic, social and cultural phenomenon (Weed and Bull, 2012; Jajić et al., 2015; Markus et al., 2019).

This study aims to investigate the relationship between sports economics, economic growth and tourism receipts in EU member countries. Since sports tourism has not been studied sufficiently in the literature, this study aims to fill the gap in the literature. The feature of the study that distinguishes it from other studies is that the model used has not been encountered in the literature so far. In this model, estimation consistency has been increased by using current econometric methods. Both economic and political makers will benefit from the results of empirical analysis. The empirical model that we use and that may contribute to the literature will shed light on future researchers. With the policies that can be developed as a result of the findings obtained, the welfare level of society will improve and its competitiveness in the international arena will increase.

The plan for the other parts of the study is the following: In the second part, examples of studies on sports economics, economic growth and tourism receipts in the literature will be presented. In the third chapter, data and model will be introduced and econometric approach will be mentioned. In the fourth section, empirical results will be interpreted and discussed. The last part of the study is the conclusions part, and economic and political suggestions will be made.

2. LITERATURE

Although sports economics has a very important place in countries, it is thought that it has not been emphasized enough in literature. Despite the added value that sports economics will provide, it has not been sufficiently researched by economists. One of the first studies on sports economics is Rottenberg (1956), followed by Neale (1964). Sports economics is an important industry that can benefit the economic growth (EG) of countries (Opolska and Proskina, 2017). Among them, Ramos-Villagrasa et al. (2019) used a comprehensive survey to obtain the opinions of participants. In their findings, they determined that sports fans allocate a significant portion of their disposable income to sports. In another study, Kharchenko and Ziming (2021) analyzed the period between 2011 and 2020 in China. The analysis results revealed that sports economics is a factor that increases EG. In another study conducted for China, Wu (2024) examined the period between 2000-2022. In the study conducted by including sports economics in the Cobb-Douglas production function, it was concluded that sports economics positively affects EG. In addition, as the EG, investment in health expenditures will also contribute positively to the sports economics. He (2018) found similar results for the period 2003-2017 using the Cobb-Douglas production function.

Another study that found that sports economics increases EG is Gao et al (2022). In the findings obtained in their study, a 1% increase in sports expenditures increases EG by 0.186%. In another study conducted for the Arab Gulf nations, ELfakharani and Albaheth (2023) investigated the period between 1995 and 2022. In the findings, they concluded that sports economics increase EG. There are also studies investigating the effect of sports economics on reducing unemployment. Hagn and Maennig (2009) investigated the employment relationship of the 2006 FIFA World Cup in Germany. In the findings, they determined that sports economics is a factor that reduces unemployment.

Tourism and EG relationship which Hazari and Sgro (1995) brought to the literature from different perspectives, has been frequently investigated in the literature in recent years. The direction of causality in empirical findings is extremely important for the economic potential of countries. Different results have emerged due to the empirical method and data range etc. used in the researches.

In the literature, there are panel data studies in which economic growth is the causal of tourism. Selvanathan et al. (2021) analyzed South Asian countries using annual data for the period 1990–2014. They estimated relationship between the variables using tourism, EG, CO2 emission and energy data. Findings were obtained that EG is causal in tourism. There are time

series studies in the literature that found similar results. Among the studies that found similar results with time series analysis, Kumar et al. (2018) investigated Fiji for the period 1975-2015. In their research findings, they determined cointegration between the variables under structural breaks and concluded that tourism affects EG positively and significantly in the short and long-run. In the results of the causality analysis of the study, it was concluded that EG is causal of tourism.

Panel data studies in which tourism is the causal of EG are also available in the literature. Gao et al., (2021), analyzed 18 Mediterranean countries. Cointegration and causality analysis were performed in the study in which EG, tourism receipts, CO2 emissions and energy consumption variables were used. According to Kao (1999) and Pedroni (1999) cointegration test results, the variables were found to co-integrate. Dumitrescu and Hurlin (2012) causality analysis report indicates that tourism is causal of EG in Mediterranean countries. In another study, Akadiri and Akadiri (2021) analyzed 16 tourism island states for the period 1995–2016. The bootstrapping cointegration test that takes into account horizontal cross-section dependence was used and found to co-integrate. Causality testing results, Dumitrescu and Hurlin (2012) determined that tourism is causal of EG. Among the studies that found similar results with time series analysis, Kyara et al. (2021) analyzed using similar variables in Tanzania from 1989-2018. In the causality analysis findings of this study, in which annual data were used, they determined that tourism is the causal of EG.

There are also panel data studies showing bidirectional causality between tourism and EG. Seetanah (2011) examined 19 island countries from 1990-2007. GMM analysis was used in the paper in which the contribution of tourism in EG was investigated. Empirical evidence shows that tourism is an important contributor to growth in these countries. In another study, Seghir et al., (2015) investigated the cointegration and causality relationship between tourism expenditures and EG in 49 countries for the period 1988 to 2012. According to the Pedroni (1999) cointegration test, a cointegration relationship was found between the variables. Furthermore, El Menyari (2021) investigated 4 North African countries using similar variables. In addition, Dumitrescu and Hurlin (2012) determined bidirectional causality between EG and tourism in their causality analysis results. There are time series studies in the literature that found similar results. Among them, Sun et al., 2022, analyzed Malaysia for the period 1970-2018. In the study, in which transportation services, tourism, EG and CO2 emission variables were used, the short and long-run elasticity coefficients of the variables

were estimated with QARDL. Transport and tourism had a significant positive impact for the EG.

In some studies, causality wasn't found between tourism and EG. Khan and Hou (2021) examined 38 countries for the period 1995–2018. Kao (1999) cointegration test results show that the variables are cointegrated. However, causality relationship couldn't be determined. Khan et al. (2021) researched 6 Commonwealth of Independent States countries from 1995–2018. Similar results were found according to the causality analysis of Dumitrescu and Hurlin (2012). Among the studies that found similar results with time series analysis, Gövdeli (2018) examined the relationship between tourism, export and EG in Turkey from 1963-2015. Causality analysis between variables was estimated with the help of Hacker and Hatemi-J (2006) Bootstrap Causality test. Causality wasn't found between tourism and EG in the findings.

Although some studies investigate the same country or region, different results may emerge. For example, Cortes-Jimenez (2008), who researched Italy in their studies, Antonakakis et al. (2015), Shahbaz et al. (2018) obtained empirical findings that tourism is causal of EG, while Massidda and Mattana (2013) found bidirectional causality between tourism and EG. Other studies have produced different findings for Spain. While Balaguer and Cantavella-Jorda (2002) predicted that tourism is causal of EG in their studies, Mérida and Golpe (2016), Antonakakis et al. (2015) determined a bidirectional causality relationship between these two variables. Mohamed et al., one of the studies investigating France, another EU member country. (2019) found a bidirectional causality relationship between tourism and EG. However, Louca (2013), Hatemi-J et al. (2014) predicted in their study that tourism is causal of EG. Different causality relationships were also found in Germany, another EU member. While Antonakakis et al. (2015) obtained empirical results that EG is the causal of tourism, Hatemi-J et al. (2014) found bidirectional causality.

3. DATA, MODEL, AND METHODOLOGY

In the study, 19 EU member countries² were used by using annual data from 2001 to 2022. The reason why other EU member countries could not be included in the analysis is the data constraint of those countries. In addition, since the data used in the study could be collected until 2022, the data were limited to 2022. The sources of the variables used in the study:

² “Belgium, Bulgaria, Croatia, Cyprus, Czechia, Finland, France, Germany, Greece, Hungary, Ireland, Luxembourg, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Switzerland.”

Tourism receipt (TR) data was obtained from the World Tourism Organization, economic growth (EG) data from the World Bank, and recreational and sporting services investments representing the sports economics (SE) data from the Eurostat database.

The data sample offers some advantages by converting it to panel data; more information can be obtained, less linearity can occur in the series, more series variability, more consistent estimations, and more degrees of freedom (Marques et al., 2010; da Silva et al., 2018). Developed econometric model:

$$TR_{it} = \gamma_1 + \beta_{1i}EG_{it} + \beta_{2i}SE_{it} + \varepsilon_{it} \quad (1)$$

where $i=1,2,\dots,N$ refers to the number of cross sections in the panel, $t=2001, 2002\dots2022$ refers to the time dimension, ε is the error term, TR; tourism receipt, EG; economic growth, SE; representing sports economics, it refers to recreational and sporting services investments.

In the first stage of the empirical analysis, the cross-sectional dependencies of the variables were tested. For this purpose, Breusch-Pagan (1980) (BP-LM), Pesaran (2021) (P-LM) and Pesaran (2021) (P-CD) tests were used. The null hypothesis of these tests is "there is no cross-sectional dependence in the variable". In addition, the homogeneity of the slope coefficients in the model was investigated with the help of the Pesaran and Yamagata (2008) test.

In order to test the stationarity of variables in panel data analysis, Im et al. (2003) (IPS) and Pesaran (2007) cross-sectionally augmented ADF (CADF) unit root tests were used. While the IPS test is one of the first generation tests, the CADF test is one of the second generation unit root tests and can be used in case of cross-sectional dependence in variables (Pesaran, 2007). In these tests, the null hypothesis is that "the variables have a unit root".

In the study, cointegration relationship in the panel was investigated using Pedroni (1999), Kao (1999), and Westerlund and Edgerton (2007). The null hypothesis of this test is that "there is no cointegration in the panel". Short and long-run coefficient estimates between variables were analyzed with The Pooled Mean Group Estimator (PMG) / Autoregressive Distributed Lag (ARDL) bound test (Pesaran et. al, 1999). Below is the prediction model:

$$\Delta TR_{it} = \varphi_i + \sum_{k=1}^p \delta_{ij} \Delta TR_{i,t-j} + \sum_{k=1}^p \gamma_{ij} \Delta EG_{i,t-j} + \sum_{k=1}^p \omega_{ij} \Delta SE_{i,t-j} + \beta_{1ij} TR_{i,t-1} + \beta_{2ij} EG_{i,t-1} + \beta_{3ij} SE_{i,t-1} + \varepsilon_{it} \quad (2)$$

where, $i=1, 2\dots19$ is the cross sections, $T=1, 2\dots22$ refers to the time dimension, φ_i is an error-corrector, ε is an error-term. The Akaike information criterion (AIC) was used in the ARDL model. The panel error correction model is given below:

$$\Delta TR_{it} = \varphi_i + \sum_{k=1}^p \delta_{ij} \Delta TR_{i,t-j} + \sum_{k=1}^p \gamma_{ij} \Delta EG_{i,t-j} + \sum_{k=1}^p \omega_{ij} \Delta SE_{i,t-j} + \vartheta ECM_{it-1} + \mu_{it} \quad (3)$$

where, ECM_{it-1} , error-correcting part; ϑ , rate of adjustment from short-run dynamics to long-run equilibrium.

Panel data sample consists of 22 years and 19 countries. In the panel ARDL bound test, variables should be stationary at level or first difference. This test has the advantage of estimating short and long-run coefficients.

According to the vector auto regression (VAR) model, the results obtained with the first-order causality test may give erroneous results when cointegrated with the variable Engle and Granger (1987). To address this issue, the vector error correction model (VECM) must be estimated using the VAR model by increasing a delayed error correction term. The VECM model is as follows (Nazlioglu and Soytas, 2012):

$$\Delta TR_{it} = \gamma_{1i} + \sum_{p=1}^k \gamma_{11ip} \Delta TR_{it-p} + \sum_{p=1}^k \gamma_{12ip} \Delta EG_{t-p} + \sum_{p=1}^k \gamma_{13ip} \Delta SE_{t-p} + \theta_{1i} \hat{\varepsilon}_{it-1} + \vartheta_{1it} \quad (4)$$

$$\Delta EG_{it} = \gamma_{2i} + \sum_{p=1}^k \gamma_{21ip} \Delta EG_{it-p} + \sum_{p=1}^k \gamma_{22ip} \Delta TR_{t-p} + \sum_{p=1}^k \gamma_{23ip} \Delta SE_{t-p} + \theta_{2i} \hat{\varepsilon}_{it-1} + \vartheta_{2it} \quad (5)$$

$$\Delta SE_{it} = \gamma_{3i} + \sum_{p=1}^k \gamma_{31ip} \Delta SE_{it-p} + \sum_{p=1}^k \gamma_{32ip} \Delta TR_{t-p} + \sum_{p=1}^k \gamma_{33ip} \Delta EG_{t-p} + \theta_{3i} \hat{\varepsilon}_{it-1} + \vartheta_{3it} \quad (6)$$

where, k ; is the optimal lag length and $\hat{\varepsilon}_{it}$; is the residual in the panel FMOLS estimate of equation 4. The VECM causality test gives both short and long-run predictions for Granger causality.

4. EMPIRICAL RESULTS AND DISCUSSIONS

The procedure for the implementation of the panel ARDL procedure is based on Menegaki (2019). Empirical results are presented and interpreted below.

Table 1. Cross-sectional Dependence Findings

	TR		EG		SE	
	Stats.	Prob.	Stats.	Prob.	Stats.	Prob.
BP-LM	2235.227***	0.000	1739.431***	0.000	1985.904***	0.000
P-LM	111.620***	0.000	84.811***	0.000	98.138***	0.000
P-CD	46.130***	0.000	40.444***	0.000	40.168***	0.000

Note. ***, $p < 1\%$.

The cross-sectional dependencies of the variables are given in Table 1. In the findings, the null hypothesis of all variables is rejected. Therefore, it is concluded that there is cross-sectional dependence in the variables. In order to perform panel ARDL and VECM causality analyses, it is necessary to first determine the stationarity of the variables. The prerequisite for the panel ARDL test is that the variables should be stationary of order I(0) or I(1). For this purpose, IPS and CADF panel unit root tests were used.

Table 2. Panel Unit Root Findings

	IPS	CADF
	Stats.	Stats.
LEVEL		
TR	3.763	-2.225
EG	-1.140	-2.863
SE	-0.021	-2.768
1. DIFFERENCE		
Δ TR	-6.227***	-3.114**
Δ EG	-6.840***	-3.618**
Δ SE	-1.885**	-2.964**

Note. ***, $p < 1\%$; **, $1 < p < 5\%$.

Table 2 shows the panel IPS and CADF unit root tests results. When these results are interpreted, tourism receipt, EG and sports economics are found to have unit root at the level. By taking the difference of the variables, the probability values of all variables were found to be significant. Therefore, the variables are stationary.

Table 3. Cross-Sectional Dependence and Homogeneity Findings

	Stats.	Prob.
<u>Cross-section dependency tests:</u>		
BP-LM	1547.944***	0.000
P-LM	74.456***	0.000
P-CD	35.747***	0.000
<u>Homogeneity tests:</u>		
\tilde{D}	4.141***	0.000
\tilde{D}_{adj}	4.556***	0.000

Note. ***, $p < 1\%$.

Before proceeding to cointegration tests, the cross-sectional dependence and homogeneity of the model were investigated. According to the findings, there is cross-sectional dependence in the model. In addition, in the homogeneity test results, the null hypothesis “slope coefficients are homogeneous” was rejected. Therefore, slope coefficients are heterogeneous in the cointegration equations.

Table 4. Panel Cointegration Findings

	Stats.	Prob.
Pedroni (1999)		
Panel v-statistics	-1.125	0.869
Panel rho- statistics	0.314	0.623
Panel PP- statistics	-1.708**	0.043
Panel ADF- statistics	-3.168***	0.000
Group rho- statistics	2.151	0.984
Group PP- statistics	-1.352*	0.088
Group ADF- statistics	-2.655***	0.004
Kao (1999)		
ADF	-4.773***	0.000
Westerlund and Edgerton (2007)		
LM_N^+	4.263	0.474

Note. ***, $p < 1\%$; **, $1 < p < 5\%$; *, $5 < p < 10\%$.

After determining that the variables Tourism receipt, EG and sports economics are stationary in the first order, cointegration among variables was analyzed. In the results of the Pedroni (1999) and Kao (1999) tests, a cointegration relationship was detected in the model. In addition, the results of the Westerlund and Edgerton (2007) LM test could not reject the null hypothesis "there is a cointegration relationship in the model" (Table 4). The cointegration of the variables allows the model to be estimated with the ARDL bounds test.

Table 5. Panel ARDL Findings

	Stat.	Prob.
LONG-RUN COEFF.		
EG	0.151***	0.000
SE	0.434***	0.000
SHORT-RUN COEF.		
C	5.509***	0.000
EG	0.004	0.279
SE	0.090	0.530
ECM (-1)	-0.279***	0.000

Note. ***, $p < 1\%$; **, $1\% < p < 5\%$.

When the results were interpreted, the elasticity coefficient of the EG variable was found to be 0.151 in the long-run, and this result was statistically significant at the 1% level. 1% increase in EG will increase tourism receipt by 0.151%. The long-run elasticity coefficient of

sports economics is 0.434 and it is statistically significant. Increasing the sports economics by 1% is expected to increase tourism Receipts by 0.434% (Table 5).

The coefficient of EG and sports economics is not statistically significant in the short-term coefficient estimation results of the ARDL test. The coefficient of the error correction model (ECM) is -0.279 and is statistically significant. 27.9% of the short-run deviation is corrected in the next period.

Table 6. Panel VECM Causality Findings

Dependent Variable	Short-run causality			Long-run causality
	Δ (TR)	Δ (EG)	Δ (SE)	ECT(t-1)
Δ (TR)	-	1.563[0.211]	1.032[0.309]	-0.522(-9.848)
Δ (EG)	36.058[0.000]	-	2.492[0.114]	-2.578(-3.216)
Δ (SE)	5.196[0.022]	0.231[0.630]	-	0.029(0.753)

Note. p-values are presented in bracket, t-statistics are shown in parentheses.

When the short-run causality results were examined, the null hypothesis that tourism receipts isn't the causal of sports economics is rejected. Thus, it was concluded that tourism receipt is the causal of sports economics. Also, the null hypothesis that tourism receipt is not the causal of EG was rejected. It has been determined that tourism receipt is the causal of EG. These findings are consistent with Akadiri and Akadiri (2021), Gao et al., (2021). When the long-run causality results are examined, the null hypothesis that EG and sports economics are not the causal of tourism receipt is rejected. In the long-run, it is concluded that EG and sports economics are the causal of tourism receipt (Table 6).

5. CONCLUSIONS

This study, the relationship between sports economics, economic growth and tourism receipts are investigated. For 19 EU member states, the focus is on the period between 2001 and 2022. In the study, firstly the stationarity of the variables was determined. In the continuation of the empirical analysis, it was found that the variables are cointegrated. Additionally, empirical findings show that a 1% increase in economic growth will increase tourism receipts by a statistically significant 0.151% in the long-run. In addition, a 1% increase in sports economics will increase tourism receipts by 0.434% in a statistically significant way. The causality relationships between the variables were estimated by panel causality test analysis. It was found that economic growth is the causal of tourism receipt and tourism receipt is the causal of sports economics.

The empirical results of the study suggest that economic growth has an increasing impact on the income generated by tourism. One of the main goals of every economy is to focus on policies that increase economic growth. In this way, social welfare increases with economic growth. If it is desired to increase tourism receipts in a country, the growth and development of that country plays an important role. Policies that increase economic growth should be included in policies that improve tourism.

Tourism is a sector that has increased its popularity in the world in recent years. Tourism receipts, which are extremely important for the country's economy, are affected by many factors such as the country's geopolitical position, economic development, etc. As the country's economic development increases, so will the number of tourist arrivals. For this purpose, tourism will develop with the advertisements that will increase the international recognition of the country, taking actions to bring it to the forefront in the social media arena, and paying more attention to the hospitality of the tourists coming to the country.

Not only the natural beauties of the country increase tourism, but also sports economics increase tourism receipts. Especially globalized sports activities provide serious tourism income to countries. For this, the country's economy must be large and it must have infrastructures that can attract tourists. It is recommended that countries that want to get more tourist income should turn to creational and sporting services. In particular, the resources that policy makers will allocate for such services will contribute to the country's tourism when supported with necessary advertisements. For this, the decisions to be taken by sector representatives and policy makers are important.

The sports economics can directly contribute to the country's economy, especially by developing the goods market as well as the service sector. The economy can be revitalized, tax revenues can increase, and unemployment can decrease with new employment areas. With the development of the sports economics, which has many social benefits, people's health levels and welfare can increase. Policy makers are recommended to develop policies on these issues.

Many countries have realized that sports economics makes a significant contribution to the economy, thanks to its recent popularity. They have turned to investments that will revive sports economics by developing appropriate policies. While determining the policies that will revive the sports economics, it is necessary to work on the big tournaments that can be organized in the country at the same time. By organizing big tournaments, not only tourism

but also many sectors in the country's economy will be revived. Policy makers are recommended to work on this issue as well.

Sports economics have many benefits for tourism. Countries will be recognized through advertisements and the number of tourists will be positively affected. Additionally, sports spectators' touristic activities will increase. By investing in sports economics, tourism receipts will increase by ensuring that successful athletes come to the country. It is recommended that investments in sports economics, one of today's popular sectors, be made in a planned manner. In this way, the country's touristic activities will increase.

Declaration of Research and Publication Ethics

This study, which does not require ethics committee approval and/or legal/special permission, complies with research and publication ethics.

Researcher's Contribution Rate Statement

Since the author is the sole author of the article, her contribution rate is 100%.

Declaration of Researcher's Conflict of Interest

There are no potential conflicts of interest in this study.

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