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Relationship between competitiveness of destinations and tourism specialization: An analysis in the digital age

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ABSTRACT

Currently, within the tourism market, there are a significant number of destinations that offer the same product, especially in the sun and beach markets, so the search for competitiveness must be the objective that allows increasing the arrival of tourists to a destination, becoming one of the main pillars on which tourism policies are based. In this context, this paper aims to ascertain whether there exists a causal relationship between tourism competitiveness and the influx of tourists to destinations. To achieve this, the Granger causality test is utilized, employing the econometric adaptation conducted by Dumitrescu and Hurlin, utilizing a sample of 18 Mediterranean countries spanning from 2007 to 2019. From the analysis carried out, it is highlighted that there is no causal relationship from tourism competitiveness to the number of tourists received, which is an important finding in the countries of the Mediterranean coast since tourists do not value competitiveness in these destinations.

Keywords: competitiveness tourism; number of tourists; Mediterranean coast; causality Granger

1. Introduction

Even when tourist destinations do not have the same attractions or resources, and this different availability allows them to specialize in one or another tourist typology, it is currently difficult to find a destination specialized in tourist typologies that cannot be offered by any other, even if it deals with a specific product[1].

In this scenario, since the tourist practice is eminently exclusive, because when the tourist chooses a destination, he is giving up all the others that exist in the market and that are also capable of satisfying the same motivation, destinations are required to make a make a significant effort to offer their potential customers the tourism products and services with the greatest capacity for differentiation[2]. Consequently, competitiveness and the continuous search for quality and excellence have become two of the fundamental objectives pursued by destinations[3].

Therefore, due to the saturation that the tourist market suffers in many cases, the search for competitiveness has become one of the objectives of the main development strategies integrated into the different policies, with the purpose of increasing the number of visitors[4–8].

The Mediterranean coast is no stranger to this scenario of competitiveness, given that it is one of the territories with the greatest capacity for attraction worldwide, characterized by being a highly unique tourist

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space where different degrees of development and models of tourist exploitation coexist, with a strong presence of sun and beach tourism[9,10].

At this point, it should be noted that the countries that form part of the Euro-Mediterranean region are the most competitive, as they have the best infrastructure, services, and security linked to the development of tourism activities and, therefore, receive a greater number of tourists.

Therefore, having demonstrated the importance of this tourist region as well as the importance of increasing competitiveness with the aim of increasing the number of tourists, the objective of this paper is to analyze whether the increase in tourism competitiveness in this type of destination allows for an increase in tourists.

To accomplish this goal, this article examines the correlation between tourism competitiveness and tourist arrivals, utilizing panel data encompassing 18 Mediterranean nations spanning from 2007 to 2019. To conduct this assessment, causality examinations were employed to ascertain the presence or absence of associations among the aforementioned variables.

This study contributes to advancing understanding regarding whether enhanced competitiveness genuinely corresponds to heightened tourist influx within Mediterranean countries, scrutinizing the interrelation between these two factors. The findings gleaned reveal empirical evidence suggesting the absence of a causal link between tourism competitiveness and tourist arrivals in the analyzed countries.

The subsequent sections of the document are structured as follows: The subsequent segment delves into a literature review pertinent to the subject matter; section three delineates the utilized data and offers a concise elucidation of the methodology employed; section four elaborates on the findings; and, lastly, section five encapsulates the ultimate conclusions drawn from the study.

2. Competitiveness in tourism activity

There has been little reference to this concept until a few years ago when evaluating a tourist destination, despite it being a basic element to know exactly its position in relation to its main competitors[7]. However, as new competitors have appeared and a scenario of hostile competition has been created, the different administrations in charge of ensuring the development of tourist activity have begun to establish as a priority objective of public policies the achievement of competitiveness, and companies begin to assume that their business goes beyond their income statement and increasingly depends on the environment in which it develops[10].

2.1. Tourism and competitiveness

In recent decades, profound transformations have been witnessed in world tourism activity, mainly due to the globalization of the economy, technological advances, and changes in both supply and demand for tourism[4]. These changes generate new risks and opportunities, and, therefore, the search for new tourist flows cannot be based exclusively on lower prices but rather on a continuous improvement in the destination's competitiveness[9].

The competitiveness of tourist destinations is more related to the macroeconomic definition than to the microeconomic one. A tourism destination can be defined as "an amalgamation of individual products and experiential opportunities that combine to form a global experience of the area visited"[11]. In addition, a destination tourism product is made up of "a set of essential benefits that are distributed through a tourism infrastructure that is managed directly or through environmental factors, some of which may be influenced by public policies"[11].

According to these scholars, the competitiveness of tourist destinations appears to hinge solely on their comparative standing within tourist markets[2]. Conversely, Crouch and Ritchie argue that the crux of tourism's competitiveness lies in its correlation with the economic well-being of its residents. As destinations primarily vie for economic advantages, striving to allure the highest level of tourist expenditure, the evaluation of tourism competitiveness ought to pivot toward long-term economic flourishing. This, they contend, serves as the pivotal criterion for gauging the competitiveness of a tourist destination[12]. Other researchers[13] place emphasis on tourism prices, considering that the measure of price competitiveness plays a decisive role, to the point that they propose tourism competitiveness as "a complex concept that includes the price differentials associated with exchange rate movements, the levels of productivity of the different components of the tourism industry, and the qualitative factors that determine the attractiveness of a destination"[13].

At this point, the competitiveness of a tourist destination can be defined as:

> *"The ability to increase tourism spending, to increasingly attract visitors, while providing them with satisfactory experiences and doing it in a beneficial way, while ensuring the well-being of the resident population and preserving the natural capital of the destiny for future generations"*[14].

Conceptual models only give an idea of the breadth and complexity of destination competitiveness, so apart from these models of theoretical content, some empirical content studies have begun to emerge in recent years, dealing with establishing the factors that determine competitiveness[1,12,15].

In addition to these theoretical models, it is necessary to carry out empirical work that tries to determine if the tourist competitiveness of tourist destinations is configured as an essential objective through which to increase the arrival of tourists to a territory and, therefore, increase the economic impacts that this economic activity generates[8]. This is the objective of this article: to carry out an empirical analysis of this relationship.

2.2. Tourism competitiveness index

The Tourism Competitiveness Index (TCI), prepared by the World Economic Forum, aims to measure different aspects that have been identified as determinants of tourism competitiveness in countries around the world[16].

Through detailed analysis of each pillar of the index, companies and governments can learn about the challenges they face in their quest for growth in tourism activity. The TCI is based, in turn, on three sub-indices, each of which is made up of a series of pillars that measure the competitiveness of each of these blocks.

The Tourism Competitiveness Index (TCI) ranges from one (indicating minimal or least competitive status) to seven (reflecting maximal or most competitive status). It is derived as the arithmetic mean of three sub-indices, each of which is computed as the average of its constituent pillars. These pillars, in turn, are determined by the arithmetic mean of the individual variables encompassed within them.

The TTCI began to be elaborated by the World Economic Forum in 2007; in 2021, there will be 117 countries on which the tourism competitiveness report is offered. However, it is necessary to indicate in this section a limitation that the Tourism Competitiveness Index itself recognizes, since the construction of the aforementioned index is based on the arithmetic mean of various pillars and variables, which means that they all have the same weight in the final index of tourism competitiveness, even when we know that not all the pillars have the same importance in the tourist's motivations when opting for a specific country among a set of destinations that offer the same tourism product.

3. Methodological approach

3.1. Mediterranean countries

The Mediterranean coast, as a cross-sectional region, is made up of a variety of sub-regions that integrate cultural, ideological, and human diversity, highlighting three large territorial areas: the Euro-Mediterranean Area, Maghreb, and the Middle East. However, it is important to highlight that the main international tourism organizations and institutions do not consider the Mediterranean as a tourist region.

The number of countries that have coastal areas in the Mediterranean Sea is large, so a total of 20 countries could be considered as sun and beach destinations, and, therefore, a total of 20 countries could be considered as competing destinations in this geographical area (**Figure 1**).

Figure 1. Competitor destinations in the Mediterranean.
(own elaboration from www.dreamstime.com).

Therefore, the first work to develop in this analysis has consisted in the identification of the countries of the Mediterranean region, for which it has had to carry out a previous work of selection of the countries object of the present study.

3.2. Data collection

To attain the aim delineated in this paper, diverse information sources have been tapped into, serving to both delineate tourism activity and gauge tourism competitiveness. Based on accessible databases, data has been amassed to profile a collective of 18 Mediterranean nations.

Within this investigation, empirical scrutiny has been conducted to delineate the correlation between tourism and competitiveness, with these constructs being quantified through the following variables:

- The Tourism Competitiveness Index (TCI), prepared by the World Economic Forum, has been used to measure tourism competitiveness.
- The Tourist Specialization Rate (TSR), which represents the number of international tourists per capita (number of international tourists/total number of inhabitants of the country), has been used to measure tourism specialization.

The analysis period spans from 2007 to 2019, chosen to encompass the widest time frame feasible. This decision is twofold: firstly, the earliest available competitiveness data from the World Economic Forum dates back to 2007, and secondly, to circumvent any influence from the tourism crisis instigated by the COVID-19 pandemic, the time series concludes in the year preceding the outbreak (2019).

According to the information available from these databases (tourism and competitiveness) in the indicated time horizon, there is information available for 18 countries on the Mediterranean coast.

3.3. Methodology applied

Firstly, the series' stationarity is examined through the implementation of the Im, Pesaran, and Shin test[17], a unit root test tailored for panel data. This test postulates a null hypothesis suggesting that all-time series within the panel are non-stationary, implying that each panel encompasses a unit root, as opposed to the alternative hypothesis suggesting that at least one panel is stationary.

Following confirmation of series stationarity, causality between the variables quantifying tourism and competitiveness is investigated. Specifically, Granger causality tests[18] are employed, wherein causality indicates whether one variable precedes the other. It's important to note that this doesn't imply a cause-and-effect relationship between the variables but rather identifies which variable leads the other.

Several variants of this test exist for panel data. The original Granger causality test assumes uniform coefficients across all countries in the panel. However, one of the most prevalent adaptations in the literature is the Dumitrescu and Hurlin test, as it allows for differing coefficients among panel countries. Therefore, in this study, Granger causality is assessed using the Dumitrescu and Hurlin tests[19]. Under the null hypothesis of homogeneous non-causality, this test posits that there is no causality present within any of the countries within the sample analyzed.

4. Results

4.1. Descriptive analysis

First of all, in an exercise to characterize tourism competitiveness in the Mediterranean countries, a descriptive analysis of the behavior of the countries analyzed is carried out, specifically the average tourism competitiveness that they present during the period 2007–2019 (**Figure 2**).

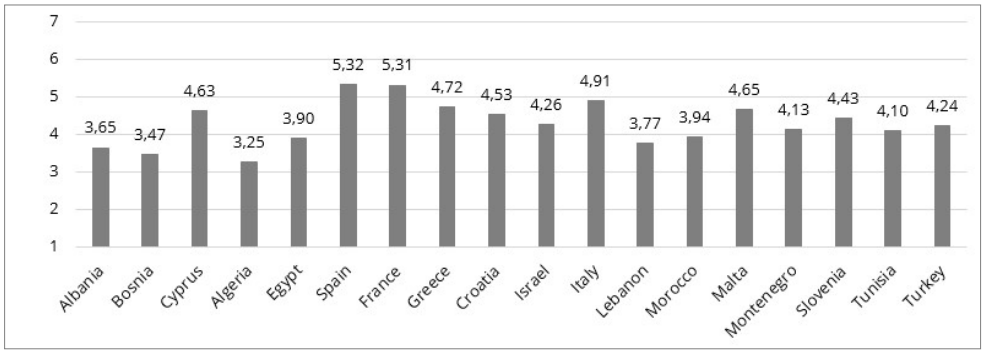

Figure 2. Tourism competitiveness index (average 2007–2019).

As can be verified, the countries with the greatest tourism competitiveness are Spain (5.32), France (5.31), Italy (4.91), and Greece (4.72), all of which belong to the Euro-Mediterranean Area region.

On the other hand, the countries that present less tourism competitiveness are Algeria (3.25), Bosnia (3.47), Lebanon (3.77), and Egypt (3.90), three of these four countries belonging to the Maghreb region.

Second of all, in an exercise to characterize tourist specialization in the Mediterranean countries, a descriptive analysis of the behavior of the countries analyzed is carried out, specifically the average tourist specialization that they present during the period 2007–2019 (**Figure 3**).

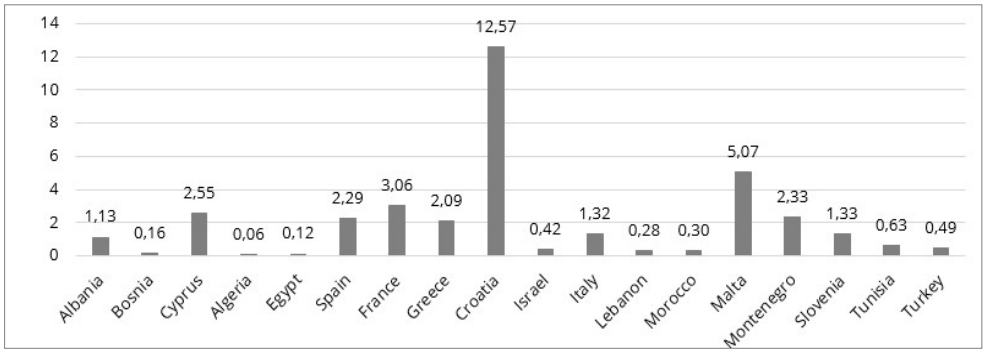

Figure 3. Tourist specialization rate (average 2007–2019).

As can be verified, the countries with the greatest tourist specialization are Croatia (12.57), Malta (5.07), France (3.06), and Cyprus (2.55). These countries belong to the Euro-Mediterranean Area region.

On the other hand, the countries with the present less tourism specialization are Algeria (0.06), Egypt (0.12), Bosnia (0.16), and Lebanon (0.28), three of these four countries belonging to the Maghreb region.

Therefore, this initial characterization can seem to show that the countries that are part of the Euro-Mediterranean Area region are the most competitive countries, having a greater endowment of infrastructure, services, or security linked to the development of tourist activity. and, therefore, receive a greater number of tourists.

4.2. Econometric analysis

The outcomes derived from the application of the stationarity test to the analyzed variables and the presence of a causal association between competitiveness and the number of tourists are outlined below. As previously mentioned, the "Competitiveness Tourism Index (CTI)" serves as a metric for competitiveness, while "Tourist Specialization (TS)" is employed as an indicator of tourism.

Table 1 exhibits the results of the unit root test for panel data as proposed by Im et al.[17]. From the attained *p*-values, it is evident that the test for variables at their original levels fails to reject the null hypothesis of a unit root. However, when the series are tested based on their first differences, the null hypothesis of a unit root is rejected. Consequently, it is inferred that the utilized variables are integrated at order 1.

Table 1. Panel unit root tests on levels and differences of variables.

Variables	IPS Statistics	*p*-value
CTI	1.2858	0.9560
TS	9.0510	0.9853
d_CTI	−8.6954	0.0001
d_TS	−5.3598	0.0000

Subsequently, we proceed to examine the causality between "Tourism Competitiveness" and "Tourist Specialization" using the Granger causality test, employing the adaptation by Dumitrescu and Hurlin[19]. This econometric evaluation aims to ascertain whether there exists a causal relationship wherein "tourism competitiveness" influences the "number of tourists".

Table 2 presents the outcomes of the Granger causality test conducted via the Dumitrescu and Hurlin method, with the null hypothesis positing that tourism competitiveness does not affect the number of tourists in Mediterranean countries. The analysis is conducted on the first differences of the variables, capturing their fluctuations.

Table 2. Dumitrescu and Hurlin causality tests for variables in differences.

Lags	Statistics	Results
1	Z-bar	2.8925 (0.1427)
	Z-bar tilde	1.7258 (0.3568)
2	Z-bar	1.2568 (0.2356)
	Z-bar tilde	0.8545 (0.4865)
3	Z-bar	3.3258 (0.0986)
	Z-bar tilde	1.7589 (0.1562)

(Numbers in parentheses are *p*-values corrected by cross-sectional dependence).

To scrutinize the presence of a causal link between tourism competitiveness and tourism specialization, given the utilization of a limited panel comprising 18 Mediterranean countries, the most suitable indicator is the check mark in Z.

The garnered results suggest the absence of a causal relationship between tourism competitiveness and the influx of tourists received by Mediterranean countries. Consequently, these findings seem to challenge the very objective of pursuing competitiveness among tourist destinations. It appears that, at least within the countries under scrutiny, an enhancement in tourism competitiveness does not correspond to a heightened number of tourists.

5. Conclusion

The empirical investigation undertaken in this study aimed to assess whether tourists genuinely prioritize the competitiveness of the destinations they visit. The primary motivation of this research was to shed light on the correlation between tourism competitiveness and the influx of tourists received by these destinations. At this point, it's important to highlight that the nations comprising the Euro-Mediterranean region exhibit exceptional competitiveness, boasting top-tier infrastructure, services, and security vital for fostering tourism; consequently, they attract a significant influx of tourists.

Based on the findings presented in this paper, it is established that no causal relationship exists between these variables. Evidently, tourists visiting destinations along the Mediterranean coast do not place significant emphasis on the various factors that gauge destination competitiveness. Consequently, competitiveness does not emerge as a decisive factor in attracting a larger number of tourists compared to other competing destinations within the same geographic region.

Therefore, the bet made by the national administrations with the aim of improving the competitiveness of the destination and competing in the tourist markets with factors other than price is not valued by the tourist when he decides to visit a tourist destination with a with a sun and beach on the Mediterranean coast.

As a limitation of this study, it must be taken into account: i) on the one hand, although a short panel of 18 Mediterranean countries is used, there is significant heterogeneity in the countries that have been analyzed, making it necessary to be cautious with the generalization of the results; and ii) on the other hand, the Tourism Competitiveness Index suffers from the fact that all the pillars and variables have the same weight in the final tourism competitiveness index, which is why there is a need to continue deepening in this type of analysis in order to identify the weighting that each of these pillars should have, which probably differs by destination, typology, type of product, etc.

Author contributions

Conceptualization, JCCG, AAO and PJCG; methodology, JCCG and AAO; software, AAO; validation, JCCG, AAO and PJCG; formal analysis, JCCG and AAO; investigation, JCCG; resources, JCCG; data

curation, JCCG; writing—original draft preparation, JCCG, AAO and PJCG; writing—review and editing, PJCG; visualization, JCCG, AAO and PJCG; supervision, PJCG; project administration, PJCG. All authors have read and agreed to the published version of the manuscript.

Conflict of interest

The authors declare no conflict of interest.

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