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Tourism, Competitiveness and Economic Growth: A New Analytical Model

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Abstract

This study reviews the theories relating to competitiveness and the indicators used for its measurement on the one hand and the studies that relate tourism and growth on the other, with the purpose of establishing the links that exist between both concepts. This enables a model to be defined in which some factors that affect tourism competitiveness combine with capital and work to determine economic growth. The provision of inherited tourism resources, together with the provision of productive resources, and the links between them are the determining elements of the capacity of an economy to produce and therefore to grow.

Keywords: Tourism, Economic Growth, Competitiveness, Model, Review

1. Introduction

The attraction or the motivation by which individuals decide to go to certain destinations or others, has inspired the study of tourism competitiveness. Among the theoretical studies, it is possible to highlight the models of [1–4]. The studies of [5–9] can be mentioned among the empirical. In these studies, it is shown that there is no single determining factor of tourism attraction, but that tourism competitiveness is related to the sum of many factors. Consequently, various indicators have been developed that attempt to summarise the competitiveness of the destination by a number. Basically, several elements are included in these indicators, which are found with various methodologies [10]. Among them are those related to the provision of physical resources or those *inherited* from the past.

The interest of these analyses is focused on determining which factors influence the growth of tourism. Concurrently to these studies, other economists have focused their interest on the empirical analysis of the relationship between tourism and growth. Initially, these analyses were focused on the empirical confirmation of the so-called *tourism-led growth* (TLG) hypothesis, since [11] made the first empirical study on the causal relationships between both variables. Other, more recent, studies put emphasis on knowing through what mechanism, or how or in what quantity, tourism generates economic growth, and they empirically analyse the relationship between tourism and economic growth, including tourism demand variables in the production functions, because as [12] affirms, it is necessary to consider other productive factors when the relationship between tourism activity and economic growth is analysed.

This study reviews the theories relating to competitiveness and the indicators used for its measurement on the one hand, and the studies that relate tourism and growth on the other, with the purpose of establishing the links that exist between both concepts. This enables a model to be defined in which some factors that affect tourism competitiveness, combine with capital and labour to determine economic growth. Those factors are included in this study, under the name of *inherited* tourism resources.

With this objective, the present study is structured as follows. After this introduction, the competitiveness models are reviewed in Section 2, including tourism competitiveness. In Section 3, a review is made of the international indicators used to make estimations of tourism competitiveness. In Section 4, a review is made of the studies that analyse economic growth and tourism, putting emphasis on the limitations or difficulties of these models and their relationship to tourism competitiveness. This analysis allows the definition of an alternative model of study, which includes the concept of inherited tourism resource. Finally, conclusions are made in Section 5.

2. Tourism competitiveness: measurement indicators

Since the last decade of the twentieth century, an increasing number of researchers have focused on knowing the causes that make a geographical enclave become a preferred tourist destination above others, and the reasons for their greater or lesser tourist attraction potential. In the past decade of the present century, the proposals have been focused on producing models that measure, by means of a specific empirical methodology, the competitiveness of the tourism destinations [1–4].

In agreement with [5], there are three main reasons why the mentioned scientific interest has been inspired: firstly, the increasing importance that the tourism sector has in the regional, national and global economies; secondly, the increasing competition between tourism destinations, although they have hardly changed over the years [13,14]; and finally, the benefits of tourism for the economies seem to be clear in the short term, but their effects in the long term do not appear to be as great, or at least there is insufficient empirical evidence that supports it [15–17].

The first section of this chapter reviews the conceptual models of tourism competitiveness. This is followed with an examination of the empirical studies developed to date, highlighting the main existing indicators on tourism competitiveness that have come to be used at the international level, putting emphasis on the applied methodology.

2.1. The conceptual framework of tourism competitiveness

The conceptual framework of tourism competitiveness is based on the pioneering studies that began to be published at the end of the twentieth century and the start of the twenty-first, fruit of the scientific activity of [2,18–20], among others. In [19], the competitiveness of one tourism destination with respect to another is defined as its increasing capacity to attract visitors, together with the increase in total tourist spending, offering them rewarding, satisfactory experiences. These authors also specify that an improvement must be produced in the well-being of the residents of the tourism destination, as well as continuity in the growth of the natural capital of the destination for future generations.

However, and despite the ease there may be a priori when exploring the registry of data that allow the determination of the degree of attraction of a geographical location, the measurement of tourism competitiveness is a complex task, as, in agreement with [21], it is an abstract concept, not directly observable and with a multidimensional character resulting from the sum of variables, many of them compared to those of another tourist destination that is taken as a reference. Therefore the measurement of competitiveness can be subjective and depend on factors such as the approach of the researcher, the aim of the research, etc., thereby enabling the existence of diverse models of competitiveness. In agreement with [2], to suitably measure the competitiveness of tourism destinations, it is advisable to distinguish between the comparative and competitive advantages of a tourism destination. In [22] the comparative advantages are defined as the tourism heritage of the destination, as opposed to the competitive advantages which are those that arise when planning, management and marketing policies are applied to the comparative advantages.

From this differentiation between comparative and competitive advantages, different authors have proposed several models to explain tourism competitiveness. In [22], the competitiveness model of [1–4] is indicated as being among the most significant. A commonality of these models is an interrelated set of diverse elements that influence tourism competitiveness, thus recognising that competitiveness is a clearly multidimensional fact, which can be characterised by indicators of both an objective and subjective nature, as stated in [23].

2.1.1. Porter's model

Porter's [1] model of competitive advantage, also called *"Porter's Diamond"*, presents a methodology for establishing enterprise strategies to achieve greater competitiveness in a globalised economy. In this model, the competitiveness of the companies of a country does not depend only on the natural and favourable factors that the country may have a priori, but also on those that can doubtlessly be generated by positive or negative synergies and which have the ultimate goal of productivity growth. Thus, the competitiveness model of [1]

establishes that the competitive position of the companies is very much influenced by their surroundings, which in turn depend on certain *"primary factors"*, these being understood as the state of the productive factors; the existence of qualified human resources; the conditions of the demand, such as tastes and their variations; the characteristics, existence and development of the associated sectors; as well as the enterprise strategies. There are also *"secondary factors"*, which influence the primary factors, which are the actions of local government and fortuitous events.

2.1.2. The Crouch-Ritchie model

The Crouch-Ritchie competitiveness model [2] was the first of the models presented to evaluate the tourism competitiveness of the 'long-haul' destinations. It can be considered, in agreement with [8], to be the main reference model on tourism competitiveness made to date. This claim is based on the fact that the model includes all the important factors that may determine the competitiveness of a tourism destination. In [8], it is considered that this model is neither predictive nor causal, but simply a conceptual model, as its intention is nothing more than to explain the determining factors of tourism competitiveness, by using abstract concepts and relationships.

The authors of this model consider that the competitiveness of the destination is primarily conditioned by both the competitive environment (micro) and by the global environment (macro). With the first concept, the authors refer to the immediate environment to which the destination has to adapt to compete, and which is composed of the different agents which operate in the tourism sector. The second concept is shaped by those global forces which change the composition and nature of tourism practice in the destination.

The main resources and attractions of the local geographical enclave are established as the third theoretical element of the model. This component includes all the assets that motivate the visit to the tourism destination. These resources are grouped into six large categories: the physiography; the culture and history; the market restrictions; the range of leisure activities; special events; and, the tourism superstructure.

The fourth element is made up of the so-called complementary factors and resources, which form the base on which the tourism industry must develop. They include the general infrastructure of the destination, the enabling resources, the vitality and the enterprise sense, as well as the accessibility of the destination.

The fifth element of the model refers to the management of the destination. This includes those activities which increase the interest in the main resources. Among these activities can be mentioned the marketing actions, such as promotions or the marketing of package tourism. Lastly, local endogenous determinants are established as elements of the model.

2.1.3. Kim's model

The third of the basic models of tourism competitiveness is that of Kim [3], which considers four sources of tourism competitiveness:

1. The economic agents that are involved in the tourism process, the environment and tourism resources which make the place attractive to the tourist.

2. The tourism policies: the planning, management, investments made in the sector, taxes applied to tourism activities and the prices of the services of the sector or the prices of other sectors directly related to it.

3. The tourism infrastructure, the system of accommodation of the visitors, the publicity and the qualification of the human resources.

4. The tourism demand itself, the employment generated by the sector, the tourism behaviour and the tourism export, which are the result of the three first sources of competitiveness.

2.1.4. The Dywer-Kim model

The model proposed by Dywer and Kim [4] is a comprehensive model, which suggests an outline for determining the competitiveness of a country as a tourism destination. This model has many points in common with the model of [2], although some important new features are introduced:

1. Firstly, it establishes that the base of the tourism competitiveness is supported by three elements: the *inherited* resources, the created resources and the complementary resources, in turn grouping these into one superior structure because they provide the characteristics that make a tourism destination attractive to the visitors.

2. Secondly, governmental management of the destination is an important point to consider in its competitiveness. Therefore, all those factors are included which, in one way or another, strengthen the attractiveness of the local tourism resources and which adapt to their particular conditions. Although the model of [2] already made reference to these questions, the model of [4] introduces questions relating to the conditions of demand as a determinant of the competitiveness.

3. Thirdly, the model considers that although the competitiveness of the destination depends on the previously mentioned determinants, these also influence socioeconomic prosperity in the sense that the competitiveness of the destination is, in itself, also an intermediate objective towards the socioeconomic well-being of the residents. **Table 1** contains a summary of the main components of each of the mentioned models of competitiveness.

Porter	1990	Elements of the model
		Conditions of the productive factors
		Conditions of the demand
		Related and support industries
		Rival strategies, structures and companies

Crouch-Ritchie	1999	Elements of the model		
		Competitive environment (microeconomic)		
		Competitive environment (macroeconomic)		
		Main factors and resources		
		Complementary factors and resources		
		Management of the destination		
		Local determinants		
Kim	**2001**	**Elements of the model: competitiveness sources**		
		Primary sources: agents (politicians, employees, travel agents, etc.), environment and resources (historical, cultural and natural)		
		Secondary sources: tourism policy, planning and management of the destination, investments, tourism taxes and prices		
		Tertiary sources: tourism infrastructures, system of accommodation of the visitors, attraction of the resources, publicity and qualification of the human resources		
		Quaternary sources (resulting from the previous ones): tourism demand, employment generated by the sector, tourism behaviour (growth rates, balance of payments of the sector, participation of the sector in the GNP of the country or region, etc.) and tourism export		
Dywer-Kim	**2003**	**Kim'smodel + New features**		
		Factors that influence the competitiveness of the destination:		
		Basis of the competitiveness of the tourism destination	Inherited resources Created resources Complementary resources	Competitiveness of the destination: intermediate objective
		Local conditions	Management of the destination Conditions of the demand	
		Factors influenced by the competitiveness of the destination:		
		Socioeconomic prosperity: productivity levels of the economy, added levels of employment, income per capita,rate of economic growth, etc.		Socioeconomic well-being of the residents: final objective

Source: own production from [1–4].

Table 1. Summary of the main elements of the Porter, Crouch and Ritchie, Kim and Dywer-Kim competitiveness models.

3. Empirical advances of tourism competitiveness: international indicators

Those theoretical or conceptual models of tourism competitiveness have also brought about a very considerable empirical advance [5–9,20,24–28]. The models proposed in those works have emphasised the need to define tourism competitiveness by means of a set of interrelated variables, which necessarily have to be measurable to be able to assess that competitiveness. This has led to interest in a large variety of indicators that are being proposed in the economics literature. These indicators are those that make reference to inputs and other results, or outputs and other instruments [6], those that are directly linked to competitiveness with other tourism areas, and those that are related to more general elements that can affect this competition. There are authors who offer a list of indicators of competitiveness of tourism destinations [26, 29].

The case study of [29] lists more than 150 indicators of competitiveness of tourism destinations, grouped into different categories (inherent resources, 11; created resources, 21; complementary factors and resources, 28; management of the destination, 34; local conditions, 25; conditions of the demand, 4; and other indicators of a macroeconomic nature and of socioeconomic prosperity, 32). Also, the study of [26] lists a lower number of indicators (68), although it is sometimes difficult to find the value of those indicators in all the analysed destinations.

Along this line, some institutions have echoed the need to provide data for the construction of tourism competitiveness indicators, and it is possible, above all, to highlight the World Travel and Tourism Council (WTTC) and the World Economic Forum (WEF).

3.1. Indicators of the World Travel and Tourism Council

In 2001, the WTTC, in collaboration with the Christel DeHaan Tourism and Travel Research Institute (TTRI) of the University of Nottingham, put into practice a Competitiveness Monitor (CM), with 65 tourism competitiveness indicators classified into eight dimensions (competitiveness in prices, human tourism, infrastructure, environment, technology, opening tourism, social development and human resources), to measure the degree of tourism competitiveness of almost 200 countries, by means of the production of multi-variant reference indicators [10]. The methodology used began with the standardisation of 23 previously selected indicators, calculating the standardised value (y_{ij}) for each of them.

$$y_{ij} = \frac{x_{ij} - \min\left(x_{ij}\right)}{\max\left(x_{ij}\right) - \min\left(x_{ij}\right)}$$

The indicators vary between 0 and 1; with the 1 value corresponding to countries with the maximum value of the indicator, and 0 to the countries with the minimum value. In the case that the relationship between the indicator and the degree of competitiveness is inverse, a procedure of inverse standardisation is applied.

$$y_{ij} = \frac{\max\left(x_{ij}\right) - x_{ij}}{\max\left(x_{ij}\right) - \min\left(x_{ij}\right)}$$

Once the indicators are standardised, an aggregate index of the eight dimensions of the previously defined competitiveness is defined. This index is an arithmetic mean of the standardised values of the indicators of each dimension:

$$S_i^{(k)} = \frac{\sum\limits_{j=1}^{m} y_{ij}}{m}$$

where $S_i^{(k)}$ is the value taken in country i with aggregate indicator from the group k, which is made up of m simple indicators; that is, superscript k (k = 1, 2,…, 8) reflects eight dimensions and m the number of indicators necessary to measure them.

The simple indicators that comprise each aggregated indicator are shown in **Table 2**.

	Indicators
Competitiveness of prices	Hotel price index
	PPP (Purchasing Power Parity Index)
Human factor	Participation index
	Tourism impact index
Development Infrastructures	Highway Index
	Health facilities
	Drinkable water facilities
Environment	Population density
	CO_2 issues
	International Treaty relations
Technological development	Internet terminals
	Telephone and mobile lines
	High technology exports
Human resources	Education index
Opening tourism	Visas
	Opening tourism
	Opening trade
	Rates of international trade
Social development	Human development index
	Newspapers

Indicators
Personal computers
Television sets

Table 2. WTTC indicators of competitiveness.

This methodology, in spite of obtaining eight aggregate indices, does not synthesise all the information in a single competitiveness index, because each of the eight aggregate indices corresponds to a different competitive dimension. In general, two disadvantages are attributed to it: i) the index $S_i^{(k)}$ does not use all the indicators available due to the deficit of statistical information on them, many countries being excluded from the global calculation; and ii), each $S_i^{(k)}$ is obtained as a simple sum of the standardised indicators, without the indicators having been weighted in the calculation of the aggregate indices.

With the aim of constructing a weighted aggregate index of tourism competitiveness, in [30] a definition is given for the aggregate index Z_i for each dimension (*I*), from the weighted average of the indicators proposed by the WTTC. The weight (ω) of each of these is obtained by means of a confirmatory factor analysis, with those weights or weightings being the slopes of the confirmatory factor analysis: $Z_i = \sum_{k=1}^{8} \omega_k I_i^{(k)}$.

It is possible to say that, in [30], the simple arithmetic mean is used in the construction of the indicators of the groups, where as for the construction of the synthetic indicator, they use the weighted mean, where the weightings are constructed from the value of the slopes of the confirming factorial analysis. The weights or weightings of the indicators obtained in [30] were as follows: Technology (0.220), Social Indicator (0.217), Human Resources (0.153), Price (0.147), Opening (0.126), Infrastructure (0.101), Human Factor (0.033) and Environment (0.003). From this synthetic indicator, in [30] it was concluded that the more competitive tourism destinations were, in sequence, the following: The United States, Sweden, Norway, Finland and Australia.

This proposal, although allowing a comparison to be made between a large number of countries, presents the following two main disadvantages: one resides in the results themselves, because, with the exception of the United States, none of the other countries indicated as the most competitive from the tourism point of view, appear in the list of the most visited countries of the world; the other is that it grants a very secondary role to the environmental factor [25]. Nevertheless, numerous studies, such as those of [2,31], indicate natural and environmental resources as one of the main attractions of a destination.

3.2. Indicators of the World Economic Forum

The other competitiveness model initiative, relatively accepted throughout the world since 2007 [6], is the Global Travel and Tourism Competitiveness Index (TTCI) proposed by the WEF. This index appears structured into three sub-indices. Each sub-index is composed of a series

of pillars composed of variables, which measure the competitiveness of each of those three blocks.

1. Sub-index A. *Regulatory Framework*. Pillar 1. Regulation. Pillar 2. Environmental sustainability. Pillar 3. Security and protection. Pillar 4. Health and hygiene. Pillar 5. Prioritisation of the tourism activity.

2. Sub-index B. Business and infrastructure environment: Pillar 6. Ait transport infrastructure. Pillar 7. Terrestrial rail and road transport infrastructure. Pillar 8. Tourism infrastructure. Pillar 9. CIT infrastructure. Pillar 10. Competitiveness of prices in the tourism sector.

3. Sub-index C. Human, cultural and natural resources: Pillar 11. Human resources. Pillar 12. Compatibility of the tourism activity. Pillar 13. Natural resources. Pillar 14. Cultural resources.

The indicators result from the combination of hard data from various official data sources, and soft data or "survey data", which come from opinion surveys of executives from leading companies in each country. These data are included in the *Executive Opinion Survey of the World Economic Forum*.

The hard data are rescaled between one and seven, directly or inversely based on the influence that the variable exerts on the competitiveness of the tourism destination, increasing it or reducing it.

The numeration of the rescaling is identical for the surveys. The value of the index is from one to seven, calculated as the arithmetic mean of the three sub-indices, where the value of each of these sub-indices is calculated as the arithmetic mean of each one of the pillars, and these also, as the arithmetic mean of each of the individual variables of which it is composed (a total of 73 variables), all rescaled from one to seven. Among the main disadvantages of this proposal is that it always uses the simple arithmetic mean, which is why all the individual indicators (pillars) take part with the same weighting in the production of the sub-index, and all the sub-indices with the same weighting in the construction of the index.

In agreement with the latest Global Competitive Report [32], Switzerland takes first place in the ranking of countries with greater tourism competitiveness, followed by Singapore, Finland, Germany and the United States.

4. Tourism competitiveness and economic growth

As previously stated, the importance of tourism activity as a source of development and growth has been highlighted by numerous institutions at global level [33,34]. Nevertheless, this visibility has not rested there, as a strong scientific interest has arisen in the academic sphere regarding the study of this subject. Thus, some economists, such as [35], and more recently [36], suggest that tourism activity can promote the growth and development of countries, especially because international tourism can bring in foreign currencies that are used

techniques, such as those of [12,74–77]. In the afore-mentioned study [61], it was shown that, up to the start of 2013, 87 studies that empirically analysed the relationship between tourism activity and economic growth had been published . Of those, 55 showed the existence of a causality relationship that runs from tourism activity to economic growth, whereby the TLG hypothesis is verified or supported. Of the other published works, 16 identified a two-way relationship between the variables, 9 found a causality relationship between economic growth and tourism activity, and 4 did not find any type of relationship between both variables.

However, the authors state that, even though most of these studies show that there is a link between tourism activity and economic growth, there are clear, simultaneous, differences between the different studies in the magnitude of this link. This magnitude variation seems to be associated with the methodology used, the temporal and territorial framework referred to in each study, and the form of measuring the tourism activity in each case

In a similar direction, the methodological strategies used in the studies that analyse the TLG hypothesis have recently been reviewed, also showing differences in the magnitude of this link based on the methodologies used, as well as on the variable used to measure tourism activity [78]. These conclusions have been ratified by the meta-analysis made in [79]. In that study, important differences are demonstrated referring to the short or long term, the use of additional variables of economic growth in the explanation of the model and the use of different methodologies to measure the tourism activity.

In this regard, the study significantly shows that the value of the effect of tourism on economic growth in the long term, depends on whether the effect of other economic variables on growth is also taken into account, such as physical or human capital, in which case, the effect of tourism activity on growth diminishes remarkably. Thus, these variables should not be excluded from the analysis, if it is required to adequately show in which way tourism activity contributes to economic growth.

4.1.1. The measurement of tourism activity in studies of economic growth

Tourism activity has been measured in various ways to be able to make econometric estimates that serve as the basis for the study of the relationship of that activity with economic growth. There are researchers who use the income obtained by international tourism as a measure of tourism activity [62,65,80–83]. Others use the number of non-resident tourists who visit the country [84–86]. The choice of indicator is of special importance, because, as stated in [79], the way in which tourism activity is evaluated will also affect its elasticity of productivity. Thus, if tourism activity is measured by the income that it generates, then the elasticity will tend to be greater than if it is measured based on visitor numbers.

Additionally, other studies use the people registered in hotels [87], the number of overnight stays of foreigners in hotels [88], the income obtained by the hotel industry [89], the sales income in hotels and restaurants [90], or the cost in tourism [91]. All these ways of measuring tourism activity have the commonality that they are measured from the point of view of demand, which supposes that economic growth is linked to demand. A perspective that has

been criticised by several economists, as it does not allow the contribution of tourism to economic growth to be suitably demarcated [92].

In this regard, new approaches [93] have recently appeared that use the TTCI to measure the contribution of tourism activity to economic growth, analysing if this activity stimulates economic growth in the most competitive destinations. However, this study does not consider the role that other productive factors, such as capital investments, have in economic growth.

4.1.2. Tourism activity, economic growth and other productive factors

The need to consider other productive factors when analysing the relationship between tourism activity and economic growth has been demonstrated by [12]. Despite this, there has been little inclusion of additional factors in the study of the contribution of tourism activity to growth. Thus, of the 87 studies reviewed in [61], only 16 include other determining factors of economic growth, with only 5 studies incorporating these variables when the analysis is made using a time series [12,63,68,94,95]. The economic factors that are included refer to private or public (infrastructures) capital stock, human capital and technological capital. There are only a few studies that also include other factors, such as the indicators of freedom [96] or life expectancy [97].

In spite of the small number of studies that introduce these factors into the analysis, in [79] the importance of their inclusion is shown for suitably measuring the contribution of tourism to growth. Thus, these authors indicate that the inclusion of additional variables tends to diminish the value of the elasticity of productivity with respect to tourism activity.

4.2. Competitiveness, tourism and economic growth

From the previous analysis, it is deduced that the increase of tourism activity seems to contribute positively to economic growth, although the way in which it does so, its magnitude, as well as the generalisation of this contribution to the growth of all the countries or time periods, are questions that remain open today. It is possible that this is because the factors that favour economic growth and the relationships among them are not always suitably taken into account.

Tourism is usually seen as an element that favours the economic growth and development of countries and regions [98]. It is assumed in the extensive literature on competitiveness and tourism, as affirmed in [93], that the more competitive a tourist destination is, the more tourists it will attract, bringing an increase in income through this sector, which will lead to an increase of production and economic growth. However, this link does not seem to be so clear for some other economists, for whom a greater number of tourists also supposes greater imports of goods to satisfy their needs, the repatriation of profits to other countries when the tourism companies have foreign capital, or the sale of tourist objects at very inferior prices to those of the market or under very favourable conditions [99–101].

In this regard, recent studies do not find empirical evidence in favour of the argument that a greater tourism competitiveness generates a greater contribution to economic growth [93],

which seems to suggest that, by not assessing the relationship between tourism and other productive factors, their conclusions may be biased. Several aspects can be taken into account when analysing these relationships.

Firstly, the indicators of tourism competitiveness include a wide number of economic variables that form part of the public capital, private capital, and human capital. This is why those competitiveness indicators are influenced by productive factors that determine economic growth. Secondly, the relationship between tourism and growth also involves some difficulties in its study. These occur when tourism is measured by income or by number of tourists, thus making reference to demand variables, or when physical and human capital and infrastructure are used to explain the effects of tourism and economic growth, when the studies seem to suggest that tourism depends on competitiveness, which in turn depends on productive factors.

Also, and in relation to this question, it is possible to say that the study of these effects of tourism on economic growth are affected by other essential variables to explain the growth, such as the physical and human capital, and the infrastructure. Therefore, if they are not included to explain the growth, the study will be biased, but if they are included it will also be biased if it is thought that tourism depends on competitiveness, and this on the productive factors.
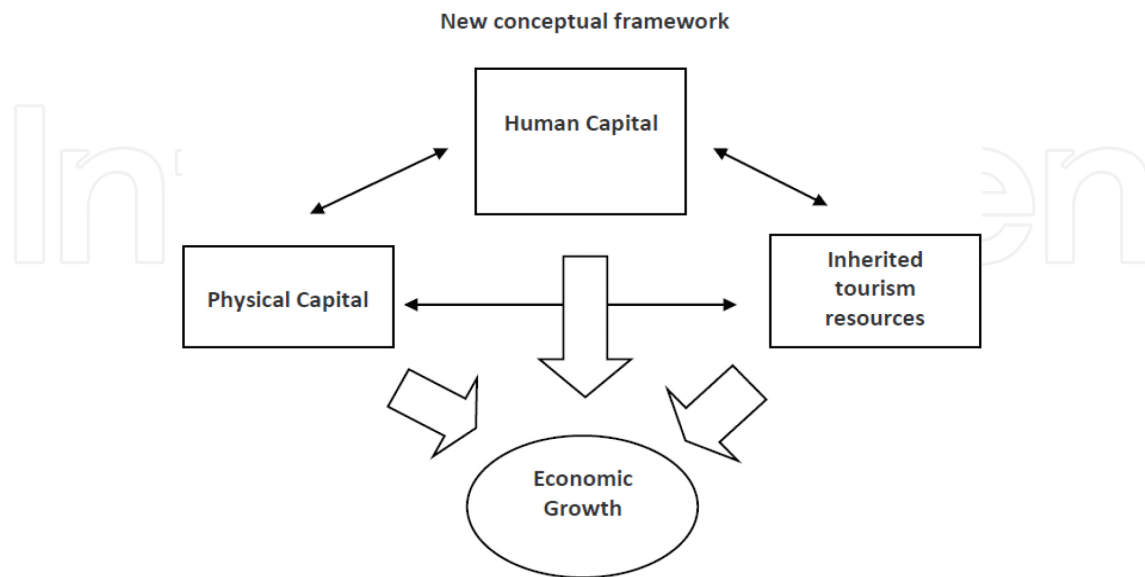
Figure 1 shows the relationships between competitiveness, tourism and growth, where competitiveness depends on tourism, tourism generates growth and the growth depends on the productive factors which affect tourism competitiveness.
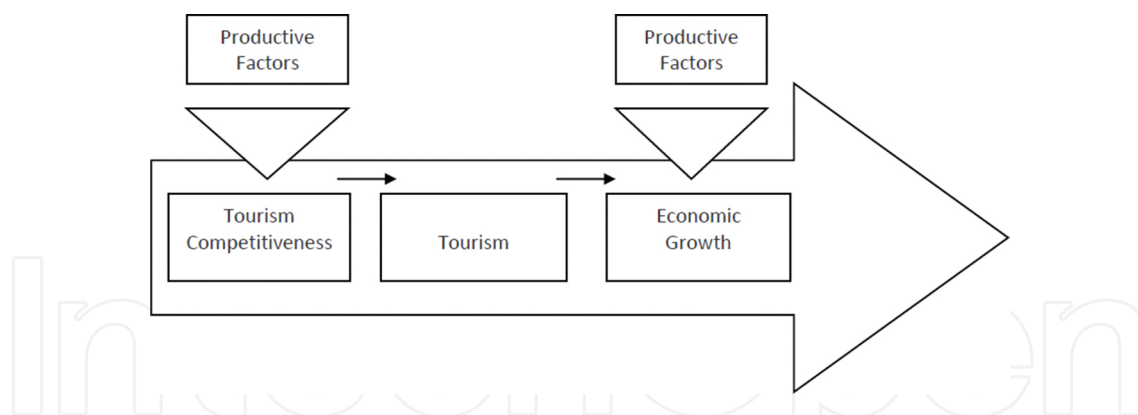
Figure 1. Relationships between competitiveness, tourism and growth in previous studies. (Source: Own production).

Alternatively, in this study, a new conception of those relationships between competitiveness, tourism and growth is proposed, where the provision of those inherited resources, together with the provision of productive resources and the links between them are the determining elements of the capacity of an economy to produce, and therefore to grow. **Figure 2** presents this new conception of the relationships between competitiveness, tourism and growth. The analysis of this new conceptual framework involves the need to determine or to evaluate the productive factors, on the one hand, and on the other to determine those tourism resources, by means of some type of indicator, which can be called *inherited*, and which are not directly

affected by the productive factors. This analysis can be based on the methodologies that have previously been developed to define tourism competitiveness.

New conceptual framework

Figure 2. Relationships between competitiveness, tourism and growth: New conceptual framework. (Source: Own production).

The tourism variable that is included in the model does not depend on demand factors, as in the previous models in which tourism is measured by tourism derived income or number of tourists [62,65,80–86]. Neither does it depend directly on productive factors, such as physical and human capital. This variable refers to the conditions of the territory that motivate the tourism offer of a geographic zone. However, what should be included in the concept of inherent tourism resources is an undefined question, as has been shown in the measurement of tourism competitiveness in previous studies. Thus, the Crouch and Ritchie [2] model of competitiveness refers to the main resources and attractions of the local geographic enclave, which include landscape and climatic characteristics and the monumental and historical-artistic heritage. The model of Kim [3] refers to the tourism resources which make the place attractive to the tourist. The model that Dywer and Kim [4] propose establishes the term of inherited resources. Dywer et al. [55] highlight the so-called inherent resources among the tourism resources. The WEF Indicator includes factors such as environmental sustainability and natural and cultural resources [34].

In general, it seems that in certain territories a series of elements exist that make those places interesting for the tourist, and which seem to be related to the culture, the environment and the climatic situation. These resources are numerous, and some of them have been protected throughout the last century, for their interest, showing that they are recognised as elements of attraction for some of the reasons indicated previously. Therefore, from the measurement of those elements, it can be possible to produce an indicator, with the tourism competitiveness measurement techniques indicated previously, such as those applied in the TTCI or CM, including only the elements related to culture, environment and climatic situation.

Additionally, the proposed model of study includes other productive variables, such as human and physical capital. In this model, these variables interact with the tourism variable, in such a way that relationships of complementariness or substitutability can be defined among them. All these variables and their relationships finally affect the economic growth. Thus, the definition of this model includes other productive factors for analysing the effect of the elements relating to tourism on economic activity, following the studies of [12] and [79]. Although, the inclusion of these other productive factors in this model does not generate biased results, as the definition of the tourism variable in this case does not include, nor depend upon, those same productive factors.

Therefore, this model considers that the territories have a series of resources that are attractive for tourists, and which, based on their interaction with the physical and human capital existing or developed in the territory, can positively affect the economic growth. These tourism variables thus have an effect on the economic growth, although that effect would additionally depend on the relationships with the other productive variables of the territory.

5. Conclusions

From the start of the present millennium, an increasing number of studies have been analysing the causes that determine the competitiveness of tourism destinations, this being understood as the capacity of certain territories to attract visitors.

However, the measurement of competitiveness and its analysis are not simple, as it is a concept that is not directly observable and has a multidimensional character. In order to suitably measure the competitiveness of tourism destinations, the comparative and competitive advantages of a tourism destination are distinguished, thus differentiating between the factors and resources which a destination has and the measures implemented by the destination to efficiently manage its resources. From this differentiation between comparative and competitive advantages, several models have set out to explain tourism competitiveness. Among them are highlighted Porter's model of competitiveness, the Crouch and Ritchie model of competitiveness, Kim's model of competitiveness and the Dwyer-Kim model of competitiveness. All these models have an interrelated set of diverse elements or factors that influence tourism competitiveness.

These conceptual models have brought about a very considerable empirical advance in recent years. These applied models have the commonality of the need to define competitiveness by means of a set of interrelated variables, which are to be measured in some way to be able to evaluate this competitiveness. Thus, a large variety of indicators have been used as a means to measure competitiveness. From different spheres, numerous institutions have been offering data which allow the production of these indicators; along this line can be highlighted mainly the WTTC and the WEF at international level.

The most commonly used methodology for the production of the different indices of competitiveness can be synthesised in two stages. In a first stage, the indicators are selected and usually

ordered into groups, they are typified and directly or inversely standardised. In a second stage, an aggregate index is calculated for each of the previously defined groups. Later, another aggregate index is calculated from the indices calculated for each group. There are two main procedures for calculating the aggregate indices. The simplest one is calculated as the arithmetic mean of the standardised indicators. Alternatively, this aggregate indicator can be calculated from a weighted mean of the proposed indicators, where the weight of each of these is obtained by means of a confirming factorial analysis.

The interest shown in measuring tourism competitiveness is related to the economic income that tourism can generate and, with it, the boost to the economic growth of its territories. Thus, there are many scientific studies which recognise the role of tourism activity as a driving force of growth and economic development. An important and increasing number of scientific studies have been made on this subject since 2002, showing that there is a link between tourism activity and economic growth, although a clear differences exists between the different studies in the magnitude of this link. In this sense, there are two key elements. Firstly, that the different ways to measure tourism activity play a key role when determining the magnitude of its relationship to economic growth, and, secondly, that the results of the analyses that study the relationship between both variables depend on the consideration of other variables or factors that affect economic growth.

In these studies, all these forms of measuring tourism activity have the commonality of measuring from the point of view of demand, which supposes linking economic growth to demand, a perspective that has been criticised by several economists. On the other hand, if it is required to suitably measure the way in which tourism contributes to economic growth, it is considered necessary to observe other productive factors when analysing the relationship between tourism activity and economic growth. However, there has been scarce inclusion of additional factors in the study of the contribution of tourism activity to growth.

Thus, the increase of tourism activity seems to contribute positively to economic growth, although the way in which it does so, its magnitude, as well as the generalisation of this contribution to the growth of all the countries or time periods, are questions that remain open today. Therefore, it seems that a relationship can be defined that links greater tourism competitiveness with an increase of tourism activity, and another that relates an increase of tourism activity to greater economic growth.

However, several aspects have to be considered when analysing these relationships. Firstly, the indicators of tourism competitiveness of the destinations include abroad number of economic variables that are comprised of the public, the private and the human capital of the territory. Thus, the competitiveness indicators are influenced by productive factors that directly affect economic growth. Secondly, tourism is usually measured by income or number of tourists, which involves linking a demand variable with economic growth. In addition, this relationship between tourism and economic growth is affected by other variables, such as physical and human capital and infrastructure again. Therefore, if these variables are not included to explain the growth, the study will be biased, but if they are included it will also be biased if it is thought that tourism depends on competitiveness, and this on these productive factors.

In these chapter, it is considered that these relationships can be seen from an alternative point of view, in which the territory has a series of qualities or resource provisions that make it especially attractive to tourists, and which are not themselves affected by the productive factors, which are called *inherited* resources. The provision of those resources in a territory, together with the provision of productive resources, such as private or public capital and human capital, and their linking together, that is to say, the relationships of complementarity or substitutability that exist between them, are the elements which determine the capacity of an economy to produce, and therefore to grow.

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