Evaluation of tourism competitiveness and its effects on destination management: making a difference in Costa Rica?

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EVALUATION OF TOURISM COMPETITIVENESS AND ITS EFFECTS ON DESTINATION MANAGEMENT: MAKING A DIFFERENCE IN COSTA RICA?

EVALUANDO LA COMPETITIVIDAD DEL TURISMO Y SUS EFECTOS SOBRE GESTIÓN DE LOS DESTINOS: ¿HACEN UNA DIFERENCI A EN EL CASO DE COSTA RICA?

Robertico Croes

Palabras clave
Competitividad, turismo, destino, calidad de vida, toma de decisiones, Costa Rica, Centroamérica

Keywords
Tourism competitiveness, destination, quality of life, impact policy, Costa Rica, Central America.

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Resumen
Este estudio investiga si el enfoque de medición de los insumos para determinar la competitividad del turismo, proporciona los elementos generales para la comprensión de la posición competitiva de un destino. La investigación se realizó en Costa Rica, en el contexto de la región centroamericana, con el objetivo de evaluar el impacto de la competitividad turística en este país. El estudio utilizó estadística descriptiva e inductiva para medir la evaluación de impacto. La investigación estableció que el enfoque de medición de los insumos no es fiable para medir la competitividad y el desempeño de un destino turístico que busca mejorar su calidad de vida. El uso de este enfoque no se recomienda para un proceso racional de toma de decisiones a nivel de destinos turísticos. Se propone, a los gestores de destinos en Costa Rica, dos algoritmos para apoyarlos un proceso racional de toma de decisiones.

Abstract
This study investigates whether the focus on inputs as measurement of tourism competitiveness provides a comprehensive understanding of the competitive position of a destination. Specifically the investigation is applied to Costa Rica in the context of the Central American region aiming at evaluating the impact of tourism competitiveness. The study applied descriptive and inductive statistics for an evaluation impact. This study found that the inputs focus is inconsistent with competitiveness as measured on the performance of a destination aiming at enhancing the quality of life. This inconsistency could confound a rational process of decision-making at the destination level. Two relevant algorithms are suggested to streamline a rational process relevant for destination managers in Costa Rica.
EVALUATION OF TOURISM COMPETITIVENESS AND ITS EFFECTS ON DESTINATION MANAGEMENT: MAKING A DIFFERENCE IN COSTA RICA?

Robertico Croes, Ph.D

INTRODUCTION

The present study claims that measurements of competitiveness grounded in factors of production (inputs) will not portray a comprehensive understanding of the competitive positioning of a tourist destination. The focus on inputs could lead to two sub-optimal situations. First, inputs could provide misleading policy implications because mediating factors could affect outcome and confound the ‘drivers’ of particular outcomes. The implicit assumption of the inputs focus is that actions affect outcomes (Crouch and Ritchie, 1999). Arguably, relating actions directly to outcomes could be a dangerous proposition for destination managers without any formal testing (Croes, 2012; Mazanec et al., 2007).

Additionally, the focus on inputs could also prompt a decision-making process that could lead to wrong choices. Policy making at a destination level entails actions, rationale for these actions and the results of those actions. Actions related to inputs (e.g., more marketing investments; more amenities, more schooling of human capital) are usually implemented without clearly conceiving the rationale for tourism competitiveness. The purpose for actions is at best dim (e.g., maximizing arrivals) or at worst damaging (e.g., wealth reducing). More arrivals could prompt higher revenues; more arrivals could also mean higher leakages and undue pressure on the environment.

Inputs can only reference how attractive a destination is, how beautiful and sustainable natural resources are, or how skillful and creative the human capital is to the destination. Inputs reference the potential of a destination but not a destination’s ability to transpose inputs into outcome. Under this circumstance it is difficult, if not impossible, to assess what difference a course of action would make. Evidence indicates that the outcome of the ability of destinations to compete is mixed because the link between tourism numbers (arrivals and expenditures) and economic contribution to the quality of life of residents is not always obvious (Croes, 2012). Inputs cannot tell about the effects of factors or attributes on satisfaction, experience, and quality of life.

If inputs (actions) are to make a difference, outcomes of these inputs should be assessed, examined and evaluated to the extent that they are realizing their intended goals (effectiveness) and at reasonable costs (efficiency). The inputs approach is lacking in this respect as this approach has not been able to articulate a clear goal.
undergirding tourism competitiveness. Consequently, the inputs approach has not been able to embrace tested information (associations between relevant variables) supporting a rational problem-solving environment.

The main premise of the present study is that tourism competitiveness theory has yet to overcome challenges related to its conceptualization and measurement. Three factors seem to define this challenge: (1) the Ricardian theory of comparative advantage and the Porterian framework of competitive advantage; (2) the debate pertaining to measurements skewing towards the application of indicators encompassing inputs (such as land, parts of the infrastructure, transport and hotel services, etc.); and (3) studies on tourism that imply an automatic direct nexus inputs-output without testing the validity of this nexus. Most studies embracing competitive advantage identify a number of variables in examining international tourism flows such as inputs, outcomes, and instruments. Ironically, these studies have succeeded poorly in explaining why some destinations do better than others.

The purpose of the present study is to assess differences between an input and an output model from a destination management perspective. The present study claims that only a result or performance orientation can enable quick evaluation, learning and improvement of policy actions. Destination managers need a rational sequence evaluating how resources are employed and how these resources interact with the external environment to create ‘memorable experiences’ thereby affecting quality of life. The ultimate goal of tourism competitiveness is enhancing the quality of life of the residents of a destination. The rational sequence of evaluation should entail a process that reflects the needs and correspond to the institutional realities of developing countries. Ironically, the vast amount of information required, emanating from existing indices suggested in the literature, does not conform to the resource and institutional environment present in developing countries.

Specifically, the study will compare the input model of the World Economic Forum with a modified Croes model (2012), following Croes (2006, 2012) and Croes and Kubickova (2013). This comparison will shed light on the competitive position of Costa Rica within the Central American region. The new measurement of tourism competitiveness is theoretically grounded on the constructs of productivity, memorable experiences, and quality of life. These conditions, i.e., productivity, experiences, and quality of life, are embedded in the conceptual foundations of tourism competitiveness theory (Crouch and Ritchie, 1999; Ritchie and Crouch, 2003). The study applies this measurement to Costa Rica in the context of the Central American region. In addition, the study will provide decision-making algorithms for destination managers.

The remainder of the paper proceeds as follows. Section two analyzes the debate regarding the meaning and measurement of tourism competitiveness. Next, section three assesses Costa Rica’s tourism development in the Central American
region. Section four discusses the procedures applied in estimating the level of competition and the correlation between the relevant variables. Finally, section five presents the results, while the last section concludes the discussion with practical and theoretical implications.

THE MEANING OF TOURISM COMPETITIVENESS AND ITS MEASUREMENT

The conceptual foundations of competitiveness theory oscillate between the Ricardian theory of comparative advantage and the Porterian framework of competitive advantage. The former emanates from the international trade paradigm, while the latter stems from management theory. The comparative advantage framework and management theories propose mutually exclusive conceptualization of national competitiveness (Lall, 2001; Smith, 2010). According to the comparative advantage framework, resource availability is the creation of advantage among countries, which is entranced by the cost principle of flow of goods. Consequently, this framework includes various supply-side analyses explaining why trade occurs among countries. Conversely, management theories state that a country can obtain a competitive advantage through the creation of core competencies, resulting from the effective and efficient deployment and usage of its resources.

The source of the foundational exclusiveness seems to be the nature of competition. While management theory seems to consider competitiveness as a zero-sum game, international trade eschews the notion of zero-sum game. Trade, according to the latter view, prompts more wealth opportunities (Krugman, 1994). These competing perspectives have hindered the conceptualization of a clear definition and meaning of tourism competitiveness.

The economic and management perspectives appear to concur, however, regarding the nature of the international market as a source of advantages (Smit, 2010). According to both perspectives, countries employ resources in international activities without ever gaining at the expense of other countries. Specialization results from resource abundance, economies of scale, or economic externalities. Thus, location of the industry may be more important than the prediction that a country would specialize and export.

The literature does not reveal a clear consensus regarding the construct of competitiveness. The debate regarding the definition and meaning is defined by three assumptions: (1) competition is the central idea and competition could mean rivalry and zero-sum game situation; or competition needs not come at the expense of another (Hong, 2008; Smit, 2010) encompassing multiple attributes and factors (Bahar & Kozak, 2007; Craigwell, 2007; Crouch & Richie, 1999; Dwyer & Kim, 2003; Enright & Newton, 2004); and (3) competitiveness occurs at multiple
levels (firm, region, and countries) (Hong, 2008). The debate on the definition of competitiveness also includes four components: the ability to deploy resources, memorable experience of tourists, superior performance, and the results (improving quality of life of the residents).

Numerous authors have noted that competitiveness is a multidimensional construct that encompasses the ability to deploy resources to achieve sustainable growth in existing and new markets (Crouch & Ritchie, 1999; Ritchie & Crouch; 1993, 2000, 2003; Ritchie, Crouch, and Hudson, 2001). Furthermore, competitiveness also includes memorable experiences of tourists, superior performance, and improving the quality of life of the residents.

For example, Crouch and Ritchie propose an integrative model aiming at the realization of the quality of life of residents and visitors alike. They defined competitiveness as “…[the] ability to increase tourism expenditure, to increasingly attract visitors while providing them with satisfying, memorable experiences, and to do so in a profitable way, while enhancing the well-being of destination residents and preserving the natural capital of the destination for future generations” (Ritchie & Crouch, 2003, p. 2).

A number of studies investigate the antecedents of tourism competitiveness (Dwyer and Kim, 2003; Gooroochurn and Sugiyarto, 2005; Hong, 2008). The antecedents are assessed mainly through factor analyses and served the purpose of measuring tourism competitiveness. The referenced studies covered a large number of factors, rendering the application of these models a harrowing proposition. For example, the Crouch and Ritchie model outlines a series of factors that play a determining role in the competitiveness of a tourist destination. It grouped these factors as primary and secondary depending on their relevance. In total, the model identifies 36 destination competitiveness attributes and more than 250 factors.

Other studies of tourism competitiveness also carry a large number of factors, such as the studies of Dwyer et. al. which covers 83 items and Hong who

### Tabla 1

**SELECTED STUDIES AND TOURISM COMPETITIVENESS INDICATORS**

<table>
<thead>
<tr>
<th>AUTHOR/INSTITUTION</th>
<th>AMOUNT OF INDICATORS</th>
<th>WEIGHTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEF Growth Competitiveness Index</td>
<td>174</td>
<td>Yes</td>
</tr>
<tr>
<td>IMD World Competitiveness Index</td>
<td>143</td>
<td>No</td>
</tr>
<tr>
<td>Environmental Sustainability Index</td>
<td>68</td>
<td>No</td>
</tr>
<tr>
<td>The Travel and Tourism Competitiveness Index</td>
<td>58</td>
<td>No</td>
</tr>
<tr>
<td>Crouch &amp; Ritchie</td>
<td>250</td>
<td>No</td>
</tr>
<tr>
<td>Dwyer et al.</td>
<td>83</td>
<td>No</td>
</tr>
<tr>
<td>Gooroochurn &amp; Sugiyarto</td>
<td>54</td>
<td>Yes</td>
</tr>
<tr>
<td>Hong</td>
<td>68</td>
<td>Yes</td>
</tr>
</tbody>
</table>
discusses 68 items. How can we practically measure the relative competitiveness of destinations and each determinant? Are these factors really relevant and meaningful in measuring competitiveness? Table 1 summarizes a few selected studies.

Studies have used indicators because competitiveness cannot be measured directly. For example, the travel and tourism competitiveness index (TTCI), launched by the World Economic Forum (WEF, 2011) utilizes indicators to rank countries in terms of their tourism performance. The TTCI includes 72 variables that are grouped in three categories of regulatory framework; business, environment, and infrastructure; and human/capital/natural resources. The measurement of variables is from soft data (i.e. executive surveys) or hard data (i.e. secondary data). This measurement is based on the view that competitiveness is related to actual potential of a destination, which emphasizes inputs. However, the TTCI is more of a systematic collection of data versus a model that encourages inferential analysis as it is limited in stating clear, testable associations among variables.

For example, price is used as a factor impacting competitiveness. Usually price at the destination level would be a measure of the effective real exchange rate and unit labor cost. This would imply that an appreciation of a destination’s currency or an increase in labor cost would lead to a decline in the destination competitiveness. The TTCI ranks Costa Rica lower than Guatemala in terms of price competitiveness. But is Costa Rica really less competitive in its tourism offerings than Guatemala? Trade in tourism services has special characteristics and, due to the nature of the trade, price seems to lose its informative power.

At a deeper level, studies in tourism competitiveness seem riddled with issues related to clear theoretical and empirical associations. A major critique of tourism competitive models (Croes, 2012, Mazanec et al, 2007) is that the indicators cannot measure the concept directly. For example, indicators such as hospital beds, quality of roads, Internet users, telephone capabilities, transportation receipts, and effect of taxation do not measure competitiveness directly. The main proposition of these studies suggests that inputs can reflect the outputs of expectations. Yet, how does potential transform into ability? Furthermore, how do human factors impact competitiveness?

Another assumption of this approach is the belief that countries assign the same level of importance and dedication to tourism. This suggests that similar inputs should result in similar outcome expectations. Tourism in one country may have the most productive and valuable resources compared to a competitor country, despite a similarity in product offerings, such as beaches and scenery, level of education, or technology advances.

The tourism literature lacks clear propositions (Croes, 2011; Mazanec et al, 2007) as well as empirical testing. Figure 1 summarizes the theoretical challenges in the extant tourism competitiveness models.
Central America has been a region riddled with political and economic problems prompting long periods of instability, violence, and lost opportunities. Tourism development was adopted as a strategy to strengthen and diversify the economy with the promise of providing more social and economic opportunities (Cañada, 2010; Ulate, 2006). Tourism, however, has only slowly evolved in the region, albeit at a significant lower productivity level compared to the rest of the world (Croes, 2006). Tourism development has been uneven in the region with some countries having a longer history of tourism development than others. Similarly, some have been more successful in attracting tourists than others (Hammill, 2007).

Costa Rica appeared as the aberration within the Central American region. The country has experienced a long period of peace, stability, and economic development. Tourism development practice in Costa Rica has been hailed as an example as well as one of the premier eco-tourism destinations in the world. For example, the WEF travel and tourism index (TTCI) ranks Costa Rica number 6 in the world in terms of natural resources and number 25 in the world in terms of sustainability. Additionally, the 2011 TTCI ranked Costa Rica at the top of the list among all Latin American countries.

Costa Rica enjoys one of the highest standards of living in Latin America and has the second lowest level of poverty with only 9% of the total population earning less than US$2 per day. Tourism has played a pivotal role in transforming Costa Rica from an agricultural to a services economy. The first stage of its tourism development was focused on an eco-tourism model, while the second stage since

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**Figure 1. Shortcoming in the Tourism Competitiveness Framework**

**COSTA RICA’S COMPETITIVENESS IN CENTRAL AMERICA**

Central America has been a region riddled with political and economic problems prompting long periods of instability, violence, and lost opportunities. Tourism development was adopted as a strategy to strengthen and diversify the economy with the promise of providing more social and economic opportunities (Cañada, 2010; Ulate, 2006). Tourism, however, has only slowly evolved in the region, albeit at a significant lower productivity level compared to the rest of the world (Croes, 2006). Tourism development has been uneven in the region with some countries having a longer history of tourism development than others. Similarly, some have been more successful in attracting tourists than others (Hammill, 2007).

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the first decade of this century has concentrated on diversifying the tourism product to a SSS destination combined with all inclusive and vacation homes, particularly in the Guanacaste region (Pacific Coast). However, Costa Rica also reveals uneven growth and development, as is evident by the area of Talamanca. This area which depends on tourism, is one of the most impoverished regions in the country.

The inputs approach reflected in the TTCI clearly suggests that Costa Rica is the most competitive destination not only in Central America, but also in Latin America. The WEF annual reports usually prompt commentators and policy-makers alike to praise Costa Rica’s tourism development. For example, INCAE issued a press release in March 2011 revealing that Costa Rica was the most competitive destination in Latin America. The INCAE assertion stems from the 2011 WEF report on tourism competitiveness (INCAE, 2011).

Studies which addressed the issue of tourism competitiveness in Central America and Costa Rica in particular have traditionally employed the Porter paradigm. Examples in the case of Costa Rica are Agenda Nacional de Competitividad 2006-2016, Conacom, Banco Mundial (2009), and Competitividad en Costa Rica. Tourism studies related to competitiveness also adhere to the notion of the relevance of factors in determining competitiveness. The main premise of these studies is that configuring existing factors is at the heart of tourist offerings emphasizing a supply approach to tourism development.

There are potent reasons to question this premise. For example, the literature is not clear if there is a relationship between memorable experiences and productivity. Do memorable experiences result in productivity, or is productivity a means to realize memorable experiences? Is productivity related to quality of life? Or, is the ability of a destination related to quality of life or memorable experiences. Furthermore, what is the relationship among the four constructs as a measure of competitiveness?

Costa Rica’s case reveals four areas of concern regarding its tourism development. First, real tourist spending per capita is stagnating (Brida, Velasquez & Aguirre, 2010; Croes, 2012). This implies that the relevance of natural resources and environmental sustainability is disconnected to the spending behavior of visitors to Costa Rica or that natural resources and environmental sustainability have little incidence in the travel experience (Gooroochurn and Sugiyarto, 2005; Mazanec et al., 2007). Second, the value of the product in Costa Rica is further compromised by the performance of the macroeconomic management in the country. The high level of inflation (the highest in the region during the first decade of this millennium) has affected tourism productivity. Consequently, discounting inflation reveals a decrease in per capita expenditure for the visit in real terms during the last decade.

Third, Costa Rica has lost market share within the Central American region. The declining trends may be a reflection of the value of the tourism product and...
the strategies implemented by the destination. And fourth, tourism development in Costa Rica seems to have lost its power to influence quality of life and poverty reduction strategies (Croes, 2012). Growing inequality, high attrition in education affecting human capital, and increased crime seem to moderate significantly the power of tourism development in Costa Rica. The World Bank (2009) also pointed out challenges facing the country in terms of competitiveness in its report regarding Costa Rica’s competitiveness.

The previous considerations imply that an inputs approach may not be sufficient to direct destination managers in making business decisions regarding resource allocation. In resource poor or challenged environments, such as in developing countries, obtaining readily high quality intelligence is crucial for aligning actions with specific results thereby rallying steady support needed for policies and actions.

ALIGNING PRODUCTIVITY, SATISFACTION AND QUALITY OF LIFE TO MEASURE COMPETITIVENESS

The nexus inputs-outputs are not automatic (Croes, 2011). Mediating factors, such as market distortions, inequality, and institutional weaknesses can weaken the ability of destinations to better the quality of life of residents and tourists alike. In addition, the attention focused to the potential of a destination can provide the wrong information as to the allocation of scarce resources towards tourism development as an economic and social tool for the betterment of the residents. Following Croes (2006, 2011) and Croes and Kubickova (2013), the present study advocates for a performance based approach to measuring competitiveness.

The performance based approach overcomes the shortcomings addressed in the previous sections. Performance is an economic principle and is directed towards results over time. The concept is embedded in productivity (Croes, 2006, 2011) and its effect on quality of life. The measurement of competitiveness makes only sense in the context of a positive relationship between productivity and quality of life. An additional proposition is that a ranking model of countries should be based on performance. Performance measures facilitate evaluation and improvement. Any organization needs to entertain clear objectives in order to be assessed effectively. Specifically, the approach adopts the definition of tourism competitiveness of Crouch and Ritchie (2003) and links productivity, satisfaction/experience, and quality of life.

Productivity is associated with factors of production and their efficient configuration, thereby generating value. Productivity is a source of attraction and satisfaction over time and is captured through tourism growth and value added
of the tourism product. When attractiveness and satisfaction combine to accrue visitors’ expenditures, the destination manifests its ability to compete. Expenditures are therefore what matters, according to Crouch and Ritchie (2003), implying that arrivals are secondary to expenditures. This perspective considers a destination competitive only when a destination can convert factors into tourism revenues (Li, Song, Cao & Wu, 2013).

This study focuses therefore at tourism receipts as the key indicator of productivity. However, tourism receipts cannot be considered in isolation to quality of life. Destination managers could consider maximizing revenues in the context of, for example, covering fiscal shortfalls without any consideration of the effects of revenues on quality of life. But maximization of revenues could lead to perverse actions. One could think of a destination which is able to maximize revenues while not able to transpose those revenues to enhance the quality of life of its citizens.

Croes (2012) found that while Costa Rica was able to increase its tourism revenues, the destination was not able to relate a positive relationship between revenues with enhanced quality of life. Quality of life should be an integral part of any model measuring tourism competitiveness. The present study posits therefore that tourism competitiveness exists only under the condition of a positive relationship between productivity, satisfaction, and quality of life. In other words, a destination is competitive when increasing revenues induce an enhanced quality of life. Understanding the conditions why some destinations perform better than others is crucial for policy makers if tourism is to fulfill its promise of enhancement of quality of life.

The present study, therefore, will address two interrelated issues. First, it will assess the nature of competition in the region. This study will apply the Hirschman-Herfindahl Index (HHI) to measure the relative distribution of international receipts of all Central American destinations over a period of time. A perfectly competitive environment will have a value of 100 with a decline in the degree of competition reflected in higher index estimates. The HHI is calculated by taking the square of export shares of all export categories in the market. This index gives greater weight to the larger export categories and reaches the value of unity when the country exports only one commodity or service. The formula is as follows:

\[ HHI = \sum (\sigma) \]

where \( \sigma \) : is the market share of the ith destination. In other words, HHI is measured by taken the square of a destination’s share of the tourism receipts of the whole region.

Second, the study will identify the conditions that may explain the difference
in performance among Central American countries. To answer this question the study will build a model stemming from an inductive process and undergirded by three propositions: (1) real receipts per capita drives quality of life; (2) tourism value added promotes quality of life; and, (3) the level of competitiveness reflects receipts per capita and tourism value added. The results of the study will facilitate policy makers in their decision-making process to make more informed decisions regarding policy choices in support of tourism development, and enhance quality of life of residents.

THE HIRCHMAN-HERFINDAHL INDEX (HHI)

The HHI is a commonly accepted measure of market concentration. Figure 2 reports the HHI in Central America has decreased over time, suggesting that competition in the region has become fiercer. The HHI is extremely low, hovering around 300 (following the convention we multiplied 0.03 by 10,000), suggesting that Central America represents a highly competitive market situation. While the market place seems highly competitive at first sight, there have been two dominant countries configuring competition patterns in the region, namely Costa Rica and Panama. In 1993, Costa Rica, for example, had a HHI of 2200, clearly indicating a high concentration of tourism receipts accruing to the country.

Over time, Costa Rica’s position has eroded due to increased competition. While still enjoying a high market share of tourism receipts in the region in 2009, compared to Nicaragua (equivalent to 366 times larger than Nicaragua), Costa Rica has seen stiff competition from Panama and Belize. Panama has significantly increased its participation rate of tourism receipts accruing to the Central American region. Panama’s share of regional tourism receipts increased from 500 to 1000 from 1989 to 2009, a 200% increase over time. While Costa Rica and Panama have driven the tourism competitive landscape in Central America, their dynamic patterns and trends have been different over time. Figure 2 summarizes the level of competition over time in Central America.

MEASURING COMPETITIVENESS: THE TCI

The procedure followed in the present study to measure competitiveness involves two steps. The first procedure focuses on the selection of the variables that will determine the performance-based model. The selection of indicators should satisfy certain important criteria (Choi, 2003). The standards include having a sound theoretical foundation, affordability, simplicity, having transparency, and the ability to compare destinations. Thus, the model will contain: (1) current perfor-
mance by real tourism receipts related to population, which references the record of competition of a destination; (2) the size of the industrial base, as noted by tourism added value, which shows the realities of the tourism sector within an economy (3) tourism receipts growth rates over time, which states the trend performance; and (4) the quality of life over time, which reflects the association with the tourism sector.

In this study, structural performance is measured with tourism receipts per capita in 2009; tourism value added is measured as a percentage of the GDP in 2009. Trend performance is measured with the average tourism growth rates from 1990 to 2009. Finally, quality of life is measured with the real GDP per capital, as operationalized by the human development index (HDI) from 2009.

Data sources are from the World Tourism Organization (WTO), the World Bank financial indicators (WB), the Central Bank of Nicaragua, the Costa Rica Tourism Board and the World Travel and Tourism Council (WTTC). The data used for this study covered the period from 1989 to 2009.

![Figure 2. Tourism Concentration by Destination Herfindahl Hirschman Index](image)
Adopted from Croes and Kubickova (2013)

The second procedure is to formulate a tourism competitiveness index. The index is computed as follows:

\[
ci = \frac{Xci_i - Xcmi_i}{Xcmi_i - Xcml_i}\]

Where c signifies the country and i notes the variable. A four-step process was utilized to compile the index value. First, we determined the direction and strength relationship of the variables. Next, a Pearson’s coefficient
was computed that represented the weighted average for each variable. The weight change from the Pearson’s correlation was then normalized to 1, and finally, the changes were added into an index.

\[
 r = \frac{1}{n} \sum_{i=1}^{n} \frac{(x_i - \bar{x})}{\sigma_x} \frac{(y_i - \bar{y})}{\sigma_y}
\]  

(3)

Where \( n \) = the number of observations; \( x \) is the mean for variable \( x \); \( y \) is the mean for variable \( y \); \( \sigma_x \) is the standard deviation for variable \( x \); and \( \sigma_y \) is the standard deviation for variable \( y \). The Pearson’s correlation was estimated for the variables based on annual data from 1990-2009.

RESULTS

Table 2 document the ranking the seven Central American countries with their component indices, the ranking of each one of the four variables, and the underlying data estimates with the estimated weights from the Pearson correlation. The dependent variables for quality of life followed a similar protocol by Croes (2012) which used human development as well as the real income per capita. The Pearson correlations for the HDI and real GDP per capita: 2000 = 100 were extremely significant (\( p = .001 \)) for value added and real receipts per capita. The growth rate for receipts was not significant for both HDI (\( p = 0.1349 \)) as well as for real GDP per capita (\( p = 0.2364 \)). The weights for HDI as the dependent variable were 0.50 for real receipts per capita; 0.12 for receipts growth rates; and 0.38 for value added. The weights for real GDP per capita as the dependent variable were 0.56 for real receipts per capita; 0.08 for receipts growth rates; and 0.36 for value added.

The ranking based on performance indicates that Costa Rica is no longer the number one competitive destination in the Central American region. Belize and Panama have superseded Costa Rica in terms of real receipts per capita and value added. The ranking of the present study is clearly inconsistent with the WEF ranking, where Costa Rica ranked as the number one competitive destination in the region. The discussion regarding the poor performance of Costa Rica’s tourism industry is beyond the scope of the present paper. For a thorough discussion on this issue, please see Croes (2012).
Table 2
THE TOURISM COMPETITIVENESS INDEX

<table>
<thead>
<tr>
<th>Country</th>
<th>Tourism Competitiveness Index</th>
<th>Rank</th>
<th>Receipt Per Capita (2000=100)</th>
<th>Rank</th>
<th>Av. Growth Receipts Rate</th>
<th>Rank</th>
<th>Added Value Ratio of GDP</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belize</td>
<td>0.92 0.88</td>
<td>1</td>
<td>$831.44</td>
<td>1</td>
<td>0.074</td>
<td>7</td>
<td>0.253</td>
<td>1</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>0.477 0.462</td>
<td>3</td>
<td>$470.40</td>
<td>3</td>
<td>0.135</td>
<td>5</td>
<td>0.146</td>
<td>2</td>
</tr>
<tr>
<td>Panama</td>
<td>0.515 0.481</td>
<td>2</td>
<td>$678.18</td>
<td>2</td>
<td>0.154</td>
<td>4</td>
<td>0.079</td>
<td>4</td>
</tr>
<tr>
<td>Honduras</td>
<td>0.701 0.093</td>
<td>5</td>
<td>$88.83</td>
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<td>7</td>
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Source: adopted from Croes and Kubickova (2013)

CONCLUSION AND IMPLICATIONS

The present study sets out to compare two models of tourism competitiveness measurement. The first model is related to estimating attributes and factors responding to an inputs approach embedded in a supply perspective. The implicit assumption of the inputs approach is that actions are directly related to outcome. This assumption presents numerous shortcomings in the tourism context stemming from the nature of tourism production and consumption. The most popular of this type of model is the WEF TTCI. Costa Rica in this model is at the top of Central American countries, its ranking being especially prompted by its natural resources and its sustainability practices.

Another model, suggested by the present study, is the output approach based on performance. This model is built on strong theoretical foundations emanating from competitiveness theory. The model combines the notions of productivity, satisfaction, and quality of life. The resulting tourism ranking (TCI) reveals that Costa Rica is positioned at the third spot behind Belize and Panama in Central America. The two defining conditions are real tourism revenues per capita and value added. Clearly, Costa Rica is confronting challenges in these two areas. The real spending per capita is stagnating implying that the value of its tourism offerings is not strong compared to Belize and Panama.

In addition, tourism specialization may have reached a point of diminishing return restraining the potential of tourism to further enhance the quality of life. The
potential diminishing return of tourism in Costa Rica could also be the result of a self-created trap: because value was created through its nature and underdevelopment of place (e.g., southern Caribbean coast of Costa Rica), development itself has become a constraint for future growth and enhancement of quality of life (Nost, 2013). On the other hand, experimentation with community tourism encounters a difficult flowering due to its divorce from a clear balance between business objectives and optimizing social benefits (Van der Duim & Caalders, 2008). The development power of tourism seems to work only under certain conditions (CEPAL, 2007).

It behooves Costa Rica to quickly assess the barriers to its tourism development, because tourism specialization (spending and value added) is strongly correlated with quality of life as measured by both the human development index and real GDP per capita. According to Gindling (2009) inequality levels in Costa Rica have increased since the decade of the nineties and poverty rates have stagnated despite economic growth. Crime is taxing vulnerable population segments the most and is threatening Costa Rica (Acevedo, 2008; World Bank, 2011). Tourism development appears unable to further HD improvements.

The results of the present study imply two relevant algorithms for the decision-making process. First, destination managers should initiate the evaluation process by looking at the intensity of the competition. And second, destination managers should assess the unfolding impact of real tourism revenues per capita and value added of tourism revenues on quality of life. If the impact is below the historic average, then destination managers should intervene in the configuration of the inputs. The platform for these algorithms could be built and made applicable without user intervention. Following this process should facilitate the selection of the right choices because there is a clear vision regarding the role of tourism development in a destination, i.e., the enhancement of the quality of life instead of revenues maximization. Only by clearly aligning maximizing tourism revenues with enhancing the quality of life can a destination be defined as competitive.

While policy and government intervention is an influential factor in prompting tourism competitiveness (Enright and Newton, 2004; Ritchie and Crouch, 2006), tourism studies related to policy are conspicuously lacking. The influence of government is related to the nature of the tourism market which is riddled with failures (Blanco, Rey-Maquiera and Lozano, 2007; Croes, 2011). It is important therefore to shed more light on the effects of policy on tourism competitiveness. To enhance the understanding of these effects it is crucial to define the meaning of tourism competitiveness as directly related to quality of life and its relationship with maximizing tourism revenues. Testing this proposition will facilitate grounding strategic choices on tested information.

The theoretical contribution of the present study is clarifying the purpose of
tourism competitiveness by linking revenues with quality of life and empirically testing this proposition. The practical implication is the use of the theoretically grounded tourism competitiveness index to come up with a set of algorithms and the suggestion of a rational policy making process.

REFERENCES


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