Chapter 13
Innovation in the Measurement of Tourism Competitiveness

Jose Manuel Guaita Martinez

https://orcid.org/0000-0002-7050-3389
Valencian International University, Spain

José María Martín Martín
International University of La Rioja, Spain

José Antonio Salinas Fernández
University of Granada, Spain

ABSTRACT

The Travel & Tourism Competitiveness Index (TTCI), developed by the World Economic Forum (WEF), is a composite indicator that integrates a total of 90 simple variables organized into 14 pillars or key dimensions of the tourism destination competitiveness. The main problem presented by this index comes from the aggregation of variables expressed in different measures, the duplicity of information, and their non-weighting in the synthetic index. This chapter proposes a new methodology for the construction of the TTCI that solves the previous problems and allows, in addition, identifying which are the pillars or dimensions that determine the differences in tourism competitiveness between the countries. The results have allowed authors to more precisely classify 136 countries according to their level of tourism competitiveness in 2017. To improve the tourism competitiveness of the countries, it is necessary to carry out policies that act on these pillars and others identified in this chapter.

INTRODUCTION

Tourism Destination Competitiveness has been traditionally measured using indexes. One of the most popular ones is the Travel & Tourism Competitiveness Index (TTCI), which has been developed since 2007 by the World Economic Forum (WEF) and constitutes a useful tool to classify groups of countries according to their tourist performance (Croes & Kubickova, 2013). The methodology used in the

construction of the TTCI is based on the aggregation of 90 simple variables organized into 14 pillars or key dimensions representing competitiveness by means of an unweighted average (WEF, 2007). This method of calculation assigns the same amount of importance to every variable and it does not take into consideration the duplicity of information caused by their integration in the synthetic indicator. Therefore, because there is no weighting, the TTCI does not allow for the identification of the most influential dimensions in tourism competitiveness and given that they determine disparities among the studied countries, this index is not useful nor effective when designing policies to increase competitiveness.

Following these premises, we propose a new methodology to calculate the TTCI as the main goal of this paper. This new methodology is able to correct previous problems and allows us to classify more accurately a group of countries according to their level of tourism competitiveness. This methodology is based on the distance P2 of Pena (1977), which was originally used to measure social welfare, and that in the last decade has been used in many other fields of study, making it possible to construct synthetic indicators that measure social and economic development in a group of different geographical areas, quality of employment; or tourism and environmental sustainability.

Following the introduction, the paper is structured into four big sections. The first out of these, reviews the most recent literature on tourism destination competitiveness, while focusing the analysis on the most significant models that have been developed at empirical and conceptual level. The second section describes the methodology proposed for the construction of the new synthetic index of tourism competitiveness, paying special attention to the method of calculation and the advantages that this method has in comparison with others used to aggregate information. In the third section, we present the results of the synthetic index built following the DP2 method for a number of 136 countries, which are the countries included in the last edition published in 2017, in comparison with the TTCI carried out by the WEF. Likewise, we will perform an analysis of the variables -or partial indicators- that influence tourism competitiveness of those countries to a larger extent. The analysis will be carried out by studying the Ivanovic's Coefficient and evaluating the amount of relative information provided by each variable in the construction of the synthetic index. The last section is focused on underscoring the main conclusions drawn from this paper, while highlighting both the main implications of the results in the measurement of tourism destination competitiveness and the proposed course of action to follow in the key dimensions of competitiveness, which determines to a large extent the growth of tourism in the countries taken into consideration.

TOURISM DESTINATION COMPETITIVENESS AND ITS MEASUREMENT

Tourism destination competitiveness has been widely studied in the scientific literature, although there is no agreement when it comes down to its definition (Mazanec, Wöber and Zins, 2007). A larger number of variables are related to the concept of tourism destination competitiveness, including on the one hand objective indicators such as the number of visitors, tourism/tourist expenditure; or employment. And on the other hand, variables that are measured in a subjective manner, such as the diversity/richness of the cultural heritage or the quality of the tourist experience (Dwyer & C. Kim, 2003). The several authors that have studied this issue have all considered tourism destination competitiveness from their own stands and thus, defined it differently. Buhalis (2000), supports a vision of competitiveness characterized by the long-term profitability of the tourism industry, while Hassan (2000) defines competitiveness as «the destination's ability to create and integrate value-added products that sustain its resources while maintaining market position relative to competitors».

Related Content

A NUTS 2 Level Cluster Analysis of EAFRD Submeasure 4.1 Implementation in Romania and Poland
Alexandru Sin, Czesaw Nowakand Ion Burlacu (2020). *International Journal of Sustainable Economies Management (pp. 48-58).*
www.irma-international.org/article/a-nuts-2-level-cluster-analysis-of-eafrd-submeasure-41-implementation-in-romania-and-poland/262205

Do Foreign Remittances Matter in Attaining Zero Hunger?: Evidence From Rural Nigeria
Oluwakemi Adeola Obayeluand Rebecca Funmi Akinmulewo (2020). *Developing Sustainable Food Systems, Policies, and Securities (pp. 197-215).*
www.irma-international.org/chapter/do-foreign-remittances-matter-in-attaining-zero-hunger/257944

Feasibility Study of Visual Computing and Machine Learning Application for Textile Material Sorting
Siu Cheung Hoand Jiannong Cao (2021). *Eco-Friendly Energy Processes and Technologies for Achieving Sustainable Development (pp. 243-267).*
www.irma-international.org/chapter/feasibility-study-of-visual-computing-and-machine-learning-application-for-textile-material-sorting/263934

An Educational Tool for Digital Electronic System Synthesis and Optimization
Hakduran Kocand Seyit Ozturk (2018). *Marketing Initiatives for Sustainable Educational Development (pp. 264-289).*
www.irma-international.org/chapter/an-educational-tool-for-digital-electronic-system-synthesis-and-optimization/206658

Land Allotment Patterns and Urban Features in Post-Second World War Athens: Existing Situation and Betterment Scenarios
Emmanuel V. Marmarasand Athena Wallace (2014). *International Journal of Social Ecology and Sustainable Development (pp. 43-66).*
www.irma-international.org/article/land-allotment-patterns-and-urban-features-in-post-second-world-war-athens/120531