3rd GLOBAL CONFERENCE on BUSINESS, ECONOMICS, MANAGEMENT and TOURISM,
26-28 November 2015, Rome, Italy

The Taxonomy of the Least Developed Countries Based on the Tourism Economic Impact Analysis

Gabriela Hrubcova[a]*, Tomas Loster [a], Petr Obergruber[a]

[a]University of Economics, Prague, W. Churchill Sq. 1938/4, 130 67 Prague 3, Czech republic

Abstract

Taxonomy as primarily empirical approach to the classification has become an important part of science in development of the diverse socio-economic processes. Furthermore, the topic of developing countries is currently a discussed topic at the international level. It is closely related to tourism as one of the sources of their potential growth. This paper aims to develop the taxonomy of the least developed countries based on the tourism economic impact analysis. We use the cluster analysis as a quantitative method for constructing taxonomies and analyze the countries based on the several different measures. As a result, taxonomy is developed based upon the outcomes of the cluster analysis.

1. Introduction

Tourism is one of the most important industries in the world in terms of generation of the foreign revenues and employment creation. In addition, it has potential to provide international economic growth and development. United Nations World Tourism Organization estimates that by 2030 the sector will reach 1,8 billion international tourist arrivals worldwide (UNWTO, 2015. The sector is an important driver of growth and also might play a role in the poverty reduction, especially within developing countries. One half of the least developed countries already consider tourism as one of the main drivers of their development. Position of the least developed countries in the international

* Gabriela Hrubcova.Tel:+4-34-54-34-3
  E-mail address: qhrug00@vse.cz

tourism has recently significantly changed, in particular in terms of their participation as importers or exporters. International arrivals in the group of the least developed countries increased between 1990 and 2009 by an average of 11 percent a year and this trend is very likely to continue. International organizations, governments and the national tourism organizations admit and recognize the unique potential of tourism to become a driver of sustainable economic development of the least developed countries (UNWTO,2015 UNDP).

Classification is the general process of grouping entities by similarity and either can be unidimensional (based solely on a single dimension or characteristics) or multidimensional (based on a number of dimensions), where the dimensions are generally thought to be related or correlated. Taxonomy as primarily empirical approach to the classification has become an important part of science in development of the diverse socio-economic processes. Like classification, the term taxonomy can refer to both – the process and the end result (Bailey, 1994).

The aim of this paper is to develop the taxonomy of the least developed countries based on the tourism economic impact analysis. We focus on the following indicators: visitor exports, domestic spending, government spending, internal tourism consumption, business and leisure spending, capital investments and direct and total contribution of tourism to the gross domestic product. We use the cluster analysis as a quantitative method for constructing taxonomies and analyse the countries based on the several different measures. To determine the optimal number of clusters, we use various techniques and criteria - the knowledge of the economic theory, the basis of the appropriate criteria and the basis of the dendrogram. As a result, taxonomy is developed based upon the outcomes of the cluster analysis. We set several clusters of the individual countries as optimum based on the evaluating coefficients and the dendrogram to show the specific groups of countries. The paper is organized as follows: firstly, the theoretical framework following the method, the empirical results and the conclusion.

2. Theoretical framework

Travel & Tourim is defined as "the activity of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not remunerated from within the place visited"; the phrase "usual environment" is introduced to exclude from the concept of 'visitor' persons commuting every day between their home and place of work or study, or other places frequently visited (UN). Without a doubt, it is an important economic activity in most countries around the world, including many developing and the least developed countries. The sector has significant direct, indirect and induced impacts. Year 2014 proved to be another success for the sector: world gross domestic product growth increased from 2.3% in 2013 to 2.4% in 2014 and the direct gross domestic product growth contribution of tourism grew by 3.5%, up from 3.4% in 2013 (WTTC. 2015).

The issue of tourism and development of the least developed countries is closely related, as tourism is considered as a possible source of their development and a half of all the least developed countries already consider tourism as a driver of their development. However, classification of developing countries through the international organizations differs. Several classification approaches of the developing countries exist. Forty-eight countries are currently designated by the United Nations (The UN Committee for Development Policy - CDP) (UNCTAD) as the least developed countries. Following three criteria are used by the CDP:

- Per capita income criterion, based on a three-year average estimate of the gross national income (GNI) per capita, with a threshold of 992 USD for possible cases of addition to the list, and a threshold of 1,190 USD for graduation from LDC status.
- Human assets criterion, involving a composite index (The Human Assets Index).
- Economic vulnerability criterion, involving a composite index (The Economic Vulnerability Index).

According to UNCTAD (2012), different thresholds are used for all three criteria to identify cases of addition to the list of the least developed countries and cases of graduation from it. Definitions of three groups of countries can be considered in case of problems specific for tourism: Least Developed Countries, Land-locked Developing Countries and Small Island Developing States. The World Bank (2014), methodology ranks countries into four income groups; main criterion for classifying economies is GNI per capita. Based on its GNI per capita, every economy is classified as low, middle (subdivided into lower middle and upper middle), or high income. The third of the developing countries classification concept is The United Nations Development Programme, methodology, based