PROPOSAL FOR MEASUREMENT OF THE ECOTOURISM POTENTIAL IN MEXICAN OASIS

Abstract:
This work originated with previous studies in the work of the Project “productive options to sustainable use of water for rural communities of the 5 sudcalifornianos Municipalities main points oasis”. This paper focuses on the analysis of 8 oasis in Baja California Sur, México. For the case study here are the specific oasis: Oasis of San Ignacio, Oasis Mulege, Oasis San Javier, Oasis La Purísima, Oasis San Isidro, Oasis of San Jose and San Miguel de Comondú, and Oasis El Chorro. For analysis of settled villages around these Oasis have split the work in one way, in relation to the analysis of natural endogenous variables of the same thus determining its potential, using the information through a similar tool Model WEF will determine which of these sites have features that make them potential in the development of ecotourism businesses are concerned.

Keywords:
Ecotourism, Competitiveness, Potential, Business, Oasis.

JEL Classification: O18, L83, M21
Introduction

México registered a arrival of tourists of 2,599.5 thousand people in 2015, in relation to 2,274.4 thousand people registered the year 2014; the pours out of foreign exchange in 2014 was $1,389.1 million in 2015 and reach $1,583.8 million in the current year. The World Tourism Barometer said that Mexico occupies the Tenth fifth place in terms of tourist arrivals, is overtaken by countries such as France, E. E. U. U., Spain, China, Italy, Turkey, Germany, United Kingdom, Russia, Thailand, Malaysia, Hong Kong, Austria and Ukraine. (UNWTO Tourism Barometer)

In the heading of currency exchange resulting from the international tourism, Mexico occupies the twenty-third place passed by the same nations that outgrow in influx, in the expenditure of the international tourism lapses to the twenty-ninth site outrunning american countries such as Brazil.

The development of nature-based tourism has shown a significant growth at the global level (Eagles et al., 2002), governments perceive this as an opportunity to relate the nature conservation with the economic development of rural territories (WTO, 2010). Therefore, it is important establish clear strategies for the development of tourist-oriented companies to the ecotourism, to take advantage of the natural resources with a focus toward sustainable development in the country, especially in non-urban areas.

State of the Art

The competitiveness applies to a range of important economic entities, from a country until various services and products, by regions, municipalities, economic sectors, business corporations or an individual company (Sánchez & Fajardo, 2004).

The macroeconomic perspective is defined as: "The competitiveness is the degree to which a nation can, under conditions of free and fair market, produce goods and services that surpass the test of international markets, while maintaining and improving, simultaneously, the real income of its inhabitants in the medium and long-term" (World Economic Forum, 2011:18).

In terms of micro vision, is interpreted as: "The competitiveness is the capacity of a public or private organization, profit or not, to maintain systematically comparative advantages that enable it to achieve, sustain and improve a certain position in the socio-economic environment" (Porter, 1990:83).

Tourism Competitiveness according to Scott and Lodge, (1985) relates to the position that deals with in the ranking of the different tourist markets, at this point coincides Murphy (et al, 2000:44:50).

Crouch and Ritchie (1999) introduced the theory of comparative advantage and competitive advantage. The comparative advantages are given the factors or resources that are available in the region, these give the probability of being considered a potential tourist destination. Natural resources are the beaches, mountains, weather, etc., these are the factors that are considered important for assessing the potential of an area. Are elements which determine the start-up situation and which constitute the primary focus of the paradigm of tourism development leading up to the moment.
This research work aims to develop a tool that is used as a first step for the establishment of a strategy to determine the potential of the oasis in Baja California Sur-based natural endogenous variables (comparative advantage) to hold productive projects related to the ecotourism.

A variety of alternatives that are available to the economic sectors is determined mainly by the activities that develop in the same, the main problem in Mexico in this area, is due to the lack of decision-making knowledge derived from the little that there are real tourist vocations of populations, the foregoing causes uncertainty as to the local family companies. To detonate economically Eco tourism activities should be take advantage of the natural resources always searching for its preservation, to achieve a sustainable economic development that would allow the new generations count with economic alternatives toward the future.

There are some methodologies whose purpose is to measure the potential of a site to perform in activities linked to the tourism sector. With the goal of clearly understand how to be able to develop such a tool, it presents some theoretical contributions in which has been based the development of the present work: model of competitiveness of Porter, model of competitiveness of Crouch-Ritchie, the model of competitiveness of Kim and the model of competitiveness of Dwyer-Kim.

Model of competitiveness of Porter (1990) mentions that the companies are working on a scheme of institutional type in certain countries, the competitive position is determined by its environment, the variables to consider are: Conditions of productive factors, conditions of the demand, characteristics of the related sectors and business strategy. This model is applied to different economic activities, in the affect the microeconomic factors that constrain the competitiveness of a country or region in particular.

Model of competitiveness of Crouch and Ritchie (1999) explanatory model. Its components or elements are: competitive environment (micro), competitive environment (macro), main resources and attractions, factors and complementary resources, destination management, determinants of rating. Distinguishes between comparative advantages and competitive advantages, proposes a scheme of eminently theoretical, although specifically applicable to tourist activity.

Model of competitiveness of Kim (2001) considered for its development four sources of competitiveness. The primary sources of competitiveness are formed by the subject (political, employees, travel agents, etc.), the environment and resources (historical, cultural and natural). Secondary sources include the tourism policy, planning and destination management, investment in the sector, and the taxes and tourist prices. The tourist infrastructure, the system of accommodation of the visitors, the attractiveness of the resources, the advertising and qualification of the human resources sector configured what Kim called tertiary sources of competitiveness. Finally, the sources of competitiveness are quaternary tourism demand, employment generated, tourist behavior based on growth rates, balance of payments of the sector, the sector’s involvement in the GNP of the country or region, and tourism exports. These latter sources of competitiveness are the tourist
output, which is derived from different inputs (sector productivity), so that the same are, per se, a direct indicator for the assessment and comparison of the competitiveness.

Model of competitiveness of Dwyer and Kim (2003) mentions that inherited resources and the resources that are created have its own identity, like the factors and additional resources. These three factors are grouped, in turn, in an upper structure, due to the fact that they provide the features that make an attractive tourist destination for visitors and the bases on which sits a prosperous tourist industry. These three factors shape, therefore, the basis of the competitiveness of the tourism destination.

In this way, the model of Dwyer and Kim (2003) presents a schema to determine the competitiveness of a country as a tourist destination, but also applicable to regions, provinces, cities, etc.

This work offers an alternative to the assessment of the potential in the field of comparative advantages that allow to assess the Oasis, determining if you are feasible to accommodate projects related to the ecotourism activity, to consider the variables that allow you to abstract away the reality of more concrete form.

**Methodology**

The model of Calgary serves as the basis for developing the next proposal, this proposal determines the value of the Natural Variables that give the comparative advantages of a place (in this case the oasis), for this purpose are identified the variables that are directly related to the environment of each oasis in relation to the potential in the ecotourism activity.

We evaluated the internal variables by general characteristics or natural advantages of the site or environment of each Oasis under the following headings and weighting (Table 1):

| Table 1. Array variables measuring the natural oasis (Weighted Value). |
|----------------------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| **NATURAL ENVIRONMENT**          | **TOTAL**        | **FLORA (a)**   | **FAUNA (b)**   | **GEOMORPHO (c)** | **CLIMATE (d)** | **WATER (e)**   | **VALUATION**   |
| **INTERNAL VARIABLE**            | **WEIGHING (%)** | **WEIGHING (%)**| **WEIGHING (%)**| **WEIGHING (%)**  | **WEIGHING (%)**| **WEIGHING (%)**| **WEIGHING (%)**|
| **TOTAL IVNO**                   | **WEIGHING (%)** | 0.20            | 0.30            | 0.20             | 0.10            | 0.20            | 1.0             |

Source: Own Preparation.

Where:

- **Flora (a).** We evaluated the native species (endemic and non-endemic) and introduced by man.
- **Fauna (b).** Endemic species and those which are not, was taken into account if there are migratory animals in the area. If so the score awarded is greater, this variable is weighted average in an elevated form already is considered vital for ecotourism activities related to education. Geomorphology (c). Is more highly valued high if the area has landforms such as lakes, volcanoes, boilers, cliffs, canyons, runoff of basalt, etc. with a lower percentage if the land is steep tending to background, this by the type of tourist activities are limited to be as well.
- **Climate (d).** The highest score is focused on the sites that maintain an average temperature between 15° and 20° (10 %), average rating (5 %) to average temperatures located in the ranges (10 °C-14 °C) and (21 °C-25 °C), and finally the lower value of 0 to the located in the extreme ranges of (9 °C down) and (26 °C upwards); these segments were thus derived from that are the temperatures that can perform the activities of rural tourism more comfortably.
Water (e). You are granted this variable a high score because the water resource is vital for this type of activities especially when speaking of Oasis. IVNO: Index of the natural advantages of the Oasis. Between closest to 1 more natural potential for ecotourism.

The different weights on this table and its indicators are based on the technique of the Delphi method focused on working with groups of experts in the field of ecotourism in the region (not only academics but entrepreneurs), as well as analysis of the kind of Focus Group (with people who practice ecotourism as usual), these groups have defined the percentages expressed in Table 1.

With the information that comprises in table can infer whether the Oasis account with comparative and competitive advantages necessary to develop the activities linked to the Alternative Tourism in its line of Ecotourism.

**Results**

Results are used the proposed matrix to measure the potential of ecotourism for the oasis sudcalifornianos selected. We considered the following aspects:

Flora and fauna as these variables are representative in the oasis by their amount of endemic species as well as migratory. The geomorphological aspects because this will determine the circuits that might develop in these areas, in terms of the variable climate this is an important factor that will determine the potential of the activities for the different climatic periods in the Oasis finally the water factor being indispensable to the life and hence the practice of any activity. (See Table 2).

**Table 2. Natural Environment (Ecotourism Model comparative advantages).**

<table>
<thead>
<tr>
<th>NATURAL ENVIRONMENT</th>
<th>FLORA (a)</th>
<th>FAUNA(b)</th>
<th>GEOMORPHOLOGY (c)</th>
<th>CLIMATE (d)</th>
<th>WATER (e)</th>
<th>VALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTERNAL VARIABLE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oasis San Ignacio</td>
<td>0.10</td>
<td>0.30</td>
<td>0.20</td>
<td>0.10</td>
<td>0.20</td>
<td>1.00</td>
</tr>
<tr>
<td>Oasis Mulegé</td>
<td>0.10</td>
<td>0.30</td>
<td>0.20</td>
<td>0.10</td>
<td>0.20</td>
<td>0.85</td>
</tr>
<tr>
<td>Oasis San Isidro</td>
<td>0.10</td>
<td>0.30</td>
<td>0.20</td>
<td>0.10</td>
<td>0.20</td>
<td>0.90</td>
</tr>
<tr>
<td>Oasis La Purisima</td>
<td>0.10</td>
<td>0.30</td>
<td>0.20</td>
<td>0.10</td>
<td>0.13</td>
<td>0.83</td>
</tr>
<tr>
<td>Oasis San José de Comundú</td>
<td>0.10</td>
<td>0.15</td>
<td>0.20</td>
<td>0.05</td>
<td>0.20</td>
<td>0.70</td>
</tr>
<tr>
<td>Oasis San Miguel de Comondú</td>
<td>0.10</td>
<td>0.15</td>
<td>0.20</td>
<td>0.05</td>
<td>0.20</td>
<td>0.70</td>
</tr>
<tr>
<td>Oasis San Javier</td>
<td>0.10</td>
<td>0.15</td>
<td>0.20</td>
<td>0.10</td>
<td>0.10</td>
<td>0.65</td>
</tr>
<tr>
<td>Oasis El Chorro</td>
<td>0.10</td>
<td>0.30</td>
<td>0.20</td>
<td>0.05</td>
<td>0.10</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Source: Own Preparation.

The matrix calculated the results were: Oasis San Isidro gets a valuation of the 0.90 being its endogenous variable more significant fauna of the region, geomorphology and water get a 0.20. Sharing a 0.10 the variables of climate and flora. The Oasis of San Ignacio and Mulege have as difference climate since the Oasis of San Isidro can be visited any time of
the year and the previous must provide the dates of intense cold or heat depending on the station. Oasis la Purísima 0.83 final assessment shows a low in the water factor already that this oasis depends on the Oasis of San Isidro for its supply. For its part, the Oasis the Jet shows a total valuation of the 0.75 being the lowest variable weighting the climate therefore blatant climates of very cold to very hot. The Oasis of San Miguel and San Jose Comundu show a 0.70 of its total valuation already showing a low in their fauna and climate variables, taking as a basis for the fauna the birds, the climate like the Oasis of San Ignacio and Mulege shows climates arctics. Finally with a 0.65 for full valuation is the oasis of San Javier with a low water in its variable already that in the summer season shows a drop in its aquifers for their part the climate factor shows a weighting of 0.15 because like the other Oasis has arctics climates depending on the season of the year in which they are visited.

Conclusion
By reference to crouch and Ritchie (1999) who introduced the theory of comparative advantage and competitive advantage. The comparative advantages in the Oasis Sudcalifornianos are determined by the factors or resources available to the territory, this makes it possible to consider such as ecotourism destination the site that has a greater number of natural resources (flora, fauna, geomorphology, water, climate, etc.). The 8 Oasis show favorable numbers, some more than others, you can understand that there are a number of issues to address to which these can function as a tourist destination taking into account the results of each of the variables.
In contrast, a tourist destination as the Oasis of San Javier with a little comparative advantage (0.65) can be highly competitive if they value their strengths and weaknesses, if you are designing a strategic plan for use of their resources, etc.
For this reason the tourism competitiveness not only relates to the amount of resources that may have an oasis, but also, with the good management of those resources. In conclusion, while the comparative advantages make reference to heritage tourism that you can count with a destination and is directed to a timely tourist activity in this case such as ecotourism, the competitive advantages are born when they are applied policies for planning, management and marketing on the comparative advantages, and that allow the destination be more competitive than others with greater number of resources.
The new paradigm of competitiveness for the profitability of the tourist activity in the long term, i.e. aims to not only increase, but also maintain, the ability to obtain benefits over time. Therefore, breaks with the idea that has prevailed so far: maximize short-term profits, without taking into account the negative impacts of tourism activity in the environment. The comparative advantage no longer ensures the maintenance of the differentiation of the destination (Sancho, 2006).
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