

# **TOURISM COMPETITIVENESS EVALUATION OF THE UKRAINE'S REGIONS**

**Victor Gerasimenko, Vladimir Pavlotskiy\***

## **1. Introduction**

Analyzing recent year's situation of domestic travel market, it's hard not to notice the close relationship between its trends and the general economic condition of the country. The recent spread of the global financial and economic crisis has reduced global demand for travel services. And, if the statistical surveys of the UN World Tourism Organization [1] and the World Travel and Tourism Council for 2013 indicate overcoming the negative tendency on a global scale, the Ukrainian tourism market is far from recovery. Unfortunately, tourism in Ukraine is not widespread, and not one of social priorities, as reflected in the relatively low and very elastic, in terms of income, demand for travel services. In recent months, the situation is exacerbated by political instability and the fall in the exchange rate of the national currency. At the same time, the number of registered tourism enterprises tends to sustainable growth nationally, as well as in the Odessa region. The combination of these circumstances leads to a significantly increased competition and makes tourism enterprises consider both internal and external factors of their competitiveness to respond adequately to changes.

Tourism business, as recent experience shows, is sensitive to changes in the economic situation in the country and in the world. The consequence of the global financial and economic crisis has caused a significant reduction in demand for travel services. And if the latest statistical reviews show improvement on a global scale, the Ukrainian tourism market has not recovered. At the same time, the number of domestic tourism enterprises is growing every year, which greatly exacerbates the competition. These circumstances make tourism enterprises to give priority to the level of their competitiveness and trends to change it.

## **2. Theoretical framework**

Recently, methodology of comparative evaluation of tourist regions competitiveness has systematically been investigated by the authors from different countries. However, the conceptual approaches and even specific techniques that have been applied in this case are significantly different. The main differences are in determining the most significant external (exogenous) factors of the competitive environment and techniques of normalization and processing of statistical information. It should also be said that the existing diversity of viewpoints is a consequence of ambiguities in the interpretation of complex, multi-level category "competitiveness".

Tourism destination's potential begins studied systematically in the scientific literature since the eighties of the last century. Works of Haahti and Yavas [2], Smith [3], Lovingwood and Mitchell [4] developed the concept of spatial planning, which was based on the analysis of the impact of tourism infrastructure on major economic indicators of regions. Under this approach, elements of competitive analysis were used. Despite the fact that the volume of research information was limited, and the opinions of tourists were not always objective, considered work became the basis for subsequent studies in nineties.

Another conceptual direction in evaluating the competitiveness of tourist regions is their life cycle

---

\* © Victor Gerasimenko; PhD; Professor; Head of the Department of Economics and Tourism Management; Odessa National Economic University; Email: <victor.gerasimenko@gmail.com>.

© Vladimir Pavlotskiy; Senior Lecturer of the Department of Economics and Tourism Management; Odessa National Economic University; Email: <v\_pavlotsky@ukr.net>.

analysis. Research in this field has quite a long history and is based on the marketing theory of the product life cycle. The idea to apply this theory to tourist regions belongs to R. Butler, who distinguished four phases in the tourism area life cycle (TALC), in accordance with the number of visitors and the level of development of tourist infrastructure [4, pp.8–9; 5, p.471].

Soon, G. Hovinen applied Butler's TALC model to study the Lancaster County in Pennsylvania. Hovinen's study suggested, that the actual state of a tourist destination can be described by features that belong to the neighboring TALC phase. On this basis, Hovinen combines Butler's consolidation and stagnation stages in to "maturity" stage [6, p.284]. Other scientists used interpretations of TALC model for the assessment of tourist regions conditions [7, p.49–50; 8, p.112].

The approach, which is based on the systematic monitoring of the main parameters of tourist regions, is interesting for regional or municipal authorities. It gives the opportunity to objectively compare the state of the same destination in the dynamics. However, comparing the competitiveness of different tourist regions, based only on determining phases of their life cycle, leads to very approximate results.

In the nineties of the last century the so-called cluster approach for evaluating the competitiveness of tourist regions was developed. The concept of clusters was used by M. Porter as an important element of the doctrine of the competitive advantages of industrial enterprises (Diamond of competitive advantage), that he developed. In accordance with this theory, companies consolidate in to the industry cluster on the basis of competitive advantage of development and placement [9, p.64].

Porter's approach has been adapted to the tourism sector and has acquired spatial-geographical content in the works of G. I. Crouch and J. R. B Ritchie. Since 1993, they have developed a conceptual model of evaluating the tourism regions competitiveness. In their early studies, they investigated the winter resorts of the Canadian province of Alberta. It determined the name of the proposed evaluation model of destinations competitiveness – "Calgary model". The authors proposed a hierarchy of components in accordance with the degree of their influence on the competitiveness of tourism regions. Each of the components included homogeneous group of factors, contain destination attractors and deterrents. The model's concept reflects the researchers vision of the competitiveness of tourism regions as an indicator of citizen's quality of life and sustainable destination development due to tourism activities in them [10, p.83].

Over the subsequent years, the authors upgraded their model by studying different opinions, based on the series of interviews with CEOs of the Convention and Visitor Bureaus of leading North American urban tourism regions [11; 12]. The model included five major determinants of competitiveness of regions with a complex system of relationships between them. In total, the model identifies 36 destination competitiveness attributes and more than 250 individual factors of destination competitiveness. [13, p.425–427; 14, p.65–66].

The improvement of Ritchie and Crouch approach was the Integrated model of destination competitiveness. This model was used to analyze the tourism regions of South Korea [15], Australia [16], and later on of Slovenia [17] and some other Balkan states. The Integrated model of destination competitiveness was similar to Ritchie and Crouch model, but contained a number of significant differences. In this model a substantial role is played by the tourist demand. The level of demand is considered as one of eight model's major determinants [15, p.389–390].

Unlike of Ritchie and Crouch models, the Integrated model of destination competitiveness is linear – all 83 individual indicators affect the competitiveness of regions in one direction. The authors proposed a set of specific indicators, used to measure the competitiveness of tourism regions, which simplifies the application of the model [15, p.393–396].

However, both models contain a number of shortcomings. A large number of individual indicators make the process of data collection extremely time consuming, and present analysis subjective. Scientists have developed a model that does not offer criteria for prioritization of competitiveness indicators or a clear algorithm to generalize the results [18; 19, p.433]. The authors emphasize that

the importance of the attributes of competitiveness cannot be the same for different regions [20, p.31]. “There is no single or unique set of competitiveness indicators that are applied to all the regions at all times” [15, p.375]. This approach greatly complicates comparative competitive analysis of the regions.

An attempt to overcome the limitations of the techniques discussed, related to the lack of systematization and hierarchization of the competitiveness factors, is undertaken in the “Pyramid model” of region competitiveness [21, p.1049; 22, p.324]. The basis of this approach is in the separation of concepts “competitive potential” of the region and “competitive position” of the region, placed at different hierarchical levels of the model.

Z. Papp and A. Raffay adapted this model for the purposes of assessing the competitiveness of tourist regions. They used factors, that synthesized attributes of the competitiveness from Ritchie and Crouch model, the Integrated model of destination competitiveness and Lengyel model of regional competitiveness [23, p.24]. The proposed technique also allows to take into account features of competitiveness of tourism regions in countries with transformation economy. However, this model, as well as previously discussed models, does not provide a clear algorithm to quantify the regions competitiveness, which limits its applicability.

Other than discussed, it is also necessary to note the composite tourism competitiveness index models. They were developed by a number of international organizations for the comparative analysis of the travel and tourism sector in different countries. The most known among them became Travel and Tourism Competitive Index (TTCI), compiled by the experts from World Economic Forum in collaboration with the International Union for Conservation of Nature, International Air Transport Association, World Tourism Organization (UNWTO), World Travel and Tourism Council and well-known consulting companies Booz & Company and Deloitte. TTCI is calculated on the basis of 3 sub-indexes: policy rules and regulation, business environment and infrastructure and human, cultural and natural resources in the field of tourism. Each of sub-indexes includes 4–5 corresponding group indicators that, together, summarize the effect of 73 individual factors of competitiveness. Experts of World Economic Forum provide a scoring evaluation of each of these factors (both quantitative and qualitative) for all of the countries. Based on generalized and processed by special technique expert’s assessments, tourism competitiveness rating for each country is determined.

Ratings of countries, determined by these method, are widely used for public policies analysis in the tourism field. However, to apply this approach to determine the competitiveness of individual tourist regions is almost impossible.

In order to minimize the negative side of the techniques discussed, in this paper we offer an approach to use a variation of parametric method for assessing the competitiveness of the tourist regions.

### **3. Methodology**

The main idea of the method is that the tourism market of the regions is evaluated using the appropriate quantitative indicators. Many of them are present in administrative and statistical reporting forms. One of the possible options to calculate the integral indicator of region’s tourism competitiveness can be represented as follows:

$$C_s = m_1 \times I_r + m_2 \times I_{nt} + m_3 \times I_{rcc} + m_4 \times I_{ac} + m_5 \times I_{anr} + m_6 \times I_{cha}, \quad (1)$$

where  $C_s$  = the integral index of region’s tourism competitiveness,

$I_r$  = parametric index of revenue from tourist activities,

$I_{nt}$  = parametric index of the number of tourists and excursionists which is served for tourism enterprises,

$I_{rcc}$  = parametric index of recreational centers capacity,

$I_{ac}$  = parametric index of accommodation capacity,

$I_{anr}$  = parametric index of the area of natural resources,

$I_{cha}$  = parametric index of the number of cultural and historical attractions,

$m_1; m_2; m_3; m_4; m_5; m_6$  = weight indexes of each of the parameters.

It is recommended to calculate parametric indexes, by comparing the value of certain parameter for each of the regions with the average value for the studied regions or with the region's best value.

As mentioned earlier, a significant drawback of using many integral indicators is subjectivity in determining the weight of parameters ( $m_i$ ). Almost all existing methods engage experts to establish weight indexes. However, their number and the required level of qualification are controversial, and the problem of experts selection and summarizing their views are seriously obstructing the construction of an integrated model.

The use of elements of Fuzzy Set Theory, and in particular, the method of analysis of hierarchies, designed by the famous American mathematician T. L. Saaty, contributes to the solution of these problems. Uniqueness of this method is in setting hierarchy of the selected indicators, done by a relatively small number of experts. This method makes it possible to check the consistency of expert's evaluation by using the harmonization of these estimates. Further, indicators undergo mathematical analysis, based on the principle of hierarchical composition. According to the method of analysis of hierarchies, the problem elements (the discussed above parametric indexes) are compared in pairs by their impact on the resulting index (level of tourism competitiveness of regions). The system of paired comparisons leads to a result which can be represented as a matrix of paired comparisons – the so-called symmetric invertible matrix or Saaty's matrix.

Element of the matrix  $a(i, j)$  is the intensity of property of the element of hierarchy  $i$  relative to the element of hierarchy  $j$ . Such intensity should be determined on a scale from one to nine, proposed by the method's author [24, p.32–33].

Next step is to multiply the score for each indicator and take  $n^{\text{th}}$  root, (where  $n$  – the number of analyzed parameters, in our case – the sixth root). Then the sum of all roots is calculated as well as the proportion of each root in this sum. The resulting vector composes the relative importance (weight) of specific indicator in the overall assessment.

To coordinate expert's opinions, we used Kemeny's median algorithm, developed by the eminent American mathematician J. G. Kemeny. The majority of authors believe this method is the most proper way of averaging expert's opinions represented by binary relations.

Procedure for assessing the regional tourist competitiveness, using the proposed by us method includes the following steps:

1. Selection of destinations-competitors for comparison;
2. Gathering information about the indicators that have been selected for evaluation;
3. Calculation of parametric indexes, by comparing indicators for destinations with the average for all regions of Ukraine;
4. Determination of integral indexes of tourism competitiveness of the analyzed destinations.

#### 4. Empirical results

After defining weights, we can rewrite formula (1) as follows:

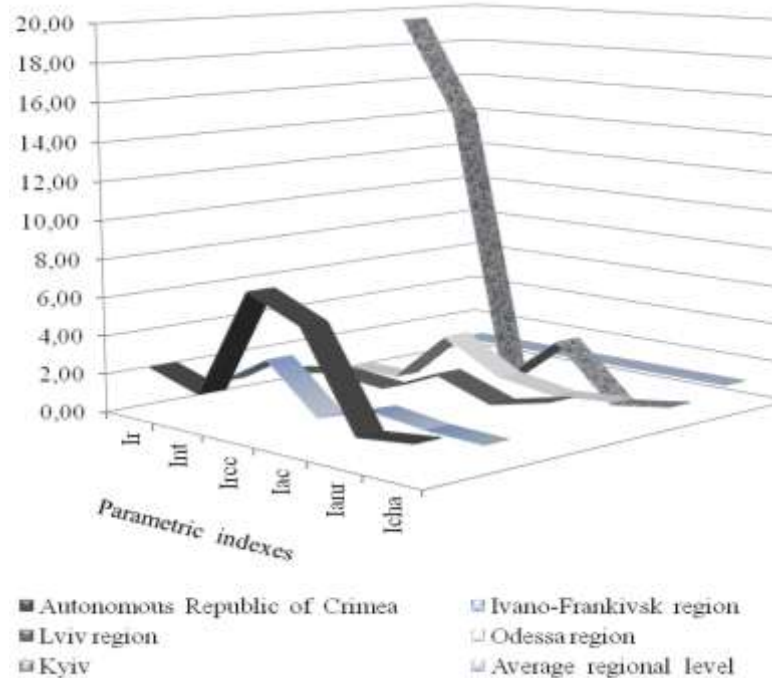
$$C_s = 0.28I_r + 0.16I_{nt} + 0.09I_{rcc} + 0.11I_{ac} + 0.19I_{anr} + 0.17I_{cha} \quad (2)$$

Values of equation's elements represent the conformed view of the experts, who are professors of the Department of Economics and Management of Tourism of Odessa National Economic University. When selecting experts, preference is given to those, who had scientific publications on the tourism competitiveness problems. According to this criteria 8 experts were selected. Each of

them was asked to fill in the pairwise comparisons matrix template.

Using formula (2), lets analyze the tourism competitiveness of some regions of Ukraine and focus on the most successful, in terms of tourism activities, regions. Let’s display values of all parametric indexes in Fig. 1.

Note that, the average values indexes, that are average for all 27 administrative-territorial units of Ukraine, and not only for the above 5 destinations, were used.



**Fig. 1. Parametric indexes of the tourism regions competitiveness**

Sources: Calculated according to the yearly report by Ukraine’s National Statistics Service, “Tourism activities in Ukraine in 2013” [25]

Calculation of integral competitiveness indicators for selected destinations of Ukraine is shown in Tab. 1.

**Tab. 1. Calculation of integral competitiveness indicators for selected regions of Ukraine**

| Estimation parameters of the 2013 tourism regions competitiveness and due parametric indexes | Regions |       |                        |               |             |                                  |
|--|---------|-------|------------------------|---------------|-------------|----------------------------------|
|  | Kyiv    | ARK   | Ivano-Frankivsk region | Odessa region | Lviv region | Average level for all 27 regions |
| Revenue from tourist activities, million UAH   | 4698,4  | 584,1 | 243,9                  | 126,8         | 228,7       | 240,6                            |
| Ir   | 19,53   | 2,43  | 1,01                   | 0,53          | 0,95        | 1,00                             |
| Number of tourists and excursionists, served for tourism enterprises, thousands              | 2214,0  | 241,9 | 415,1                  | 83,0          | 210,7       | 152,3                            |
| Int  | 14,54   | 1,59  | 2,73                   | 0,54          | 1,38        | 1,00                             |
| Recreational centers capacity, thousand beds   | 6,6     | 120,2 | 3,8                    | 53,5          | 18,5        | 16,4                             |
| Ircc   | 0,40    | 7,31  | 0,23                   | 3,26          | 1,13        | 1,00                             |
| Accommodation capacity, thousand beds  | 19,2    | 40,5  | 8,1                    | 10,9          | 16,2        | 6,6                              |

Continued the Tab. 1

|  |      |      |      |      |      |      |
|--|------|------|------|------|------|------|
| Iac  | 2,89 | 6,10 | 1,22 | 1,64 | 2,44 | 1,00 |
| Area of preserved territories,<br>thousands of square kilometers | 0,5  | 12,0 | 8,2  | 11,3 | 13,8 | 9,4  |
| Ianr   | 0,05 | 1,27 | 0,87 | 1,20 | 1,46 | 1,00 |
| Number of cultural and historical<br>attractions                 | 941  | 2911 | 1419 | 2663 | 3934 | 1820 |
| Icha   | 0,52 | 1,60 | 0,78 | 1,46 | 2,16 | 1,00 |
| Integral index of tourism region<br>competitiveness (Ci)         | 8,25 | 2,78 | 1,17 | 1,18 | 1,50 | 1,00 |

As evidenced by the table's data, the most competitive of the reviewed destinations is the city of Kyiv (8,25). This is due primarily to the highest income of the tourism enterprises resulting from their activities. The next place is taken by the Autonomous Republic of Crimea (2,78), followed by Lviv region (1,5), Ivano-Frankivsk region (1,18) and Odessa region (1,17).

## 5. Conclusions

Methodology to evaluate the competitiveness of the tourism destinations, in our opinion, is fairly objective and has a number of advantages over the methods considered earlier:

- it takes into account all major sources of tourism competitiveness of the region (natural and anthropogenic tourism resources, key performance indicators of tourism enterprises and tourism sector infrastructure);
- it formed a more objective assessment of the competitive position of destinations, by limiting the subjective opinion of experts who only determine the significance of performance indicators;
- it uses real quantitative indicators, present in administrative and statistical reporting.

In general, complex assessment of tourism competitiveness of destination should be based on a model that would represent a region as an integrated system of tourism resources, subjects of tourism activities and services for recreants and tourists.

## References

1. The Travel & Tourism Competitiveness Report 2013 [Electronic source]. – Access: <http://www.weforum.org/reports/travel-tourism-competitiveness-report-2013>.
2. Haahti A. Tourists's perceptions of Finland and selected European countries as travel destinations / A. Haahti, U. Yavas // *European Journal of Marketing*. – 1983. – Vol. 17. – Issue 2. – Pp. 34–42.
3. Smith S. L. J. Regional Analysis of Tourism Resources. *Annals of tourism research* / S. L. J. Smith. – 1987. – Vol. 14. – Issue 2. – Pp. 254–273.
4. Butler R. The concept of the tourist area lifecycle of evolution: implications for the management of resources / R. Butler // *Canadian Geographer*. – 1980. – Vol. 24. – Pp. 5–12.
5. Wilde S. J. Linking destination competitiveness and destination development: findings from a mature Australian tourism destination / S. J. Wilde, C. Cox // Paper presented at the Travel and Tourism Research Association (TTRA) European Chapter Conference – Competition in tourism: business and destination perspectives (Helsinki, Finland, TTRA, 23<sup>rd</sup>-25<sup>th</sup> April 2008). – Pp. 467–478.
6. Hovinen G. V. A tourist cycle in Lancaster County, Pennsylvania / G. V. Hovinen // *Canadian Geographer*. – 1981. – Vol. 25. – Pp. 283–286.
7. Harrison D. *Tourism and the Less Developed Countries* / D. Harrison. – Chichester: John Wiley and Sons.
8. Buhalis D. Marketing the competitive destination of the future / D. Buhalis // *Tourism Management*. – 2000. – Vol. 21. – No. 1. – Pp. 97–116.
9. Porter M. E. *Competitive Advantage of Nations* / M. E. Porter. – New York: Free Press.

10. Crouch G. I. Destination competitiveness: Exploring foundations for a long-term research program / G. I. Crouch, J. R. B. Ritchie // Paper presented at the Administrative Sciences Association of Canada Annual Conference (Halifax, Nova Scotia, 25<sup>th</sup>-28<sup>th</sup> June 1994). – Pp. 79–88.
11. Crouch G. I. Tourism, competitiveness, and societal prosperity / G. I. Crouch, J. R. B. Ritchie // *Journal of Business Research*. – 1999. – Vol. 44. – Issue 3. – Pp. 137–152.
12. Ritchie J. R. B. The competitive destination, sustainable perspective / J. R. B. Ritchie, G. I. Crouch // *Tourism Management*. – 2000. – Vol. 21. – Issue 1. – Pp. 1–7.
13. Crouch G. I. Destination Competitiveness / G. I. Crouch, J. R. B. Ritchie // *International Handbook on the Economics of Tourism*. – Northampton, MA: Edward Elgar Publishing, 2006. – Pp. 419–433.
14. Ritchie J. R. B. The competitive destination, a sustainable tourism perspective / J. R. B. Ritchie, G. I. Crouch // Cambridge: Cabi Publishing, ent. – 2003. – Vol. 10. – Issue 1. – Pp. 60–78.
15. Dwyer L. Destination competitiveness: determinants and indicators / L. Dwyer, C. Kim. – *Current Issues in Tourism*. – 2003. – Vol. 6. – Issue 5. – Pp. 369–414.
16. Dwyer L. Competitiveness of Australia as a tourist destination / L. Dwyer, L. Zelko, R. Mellor // *Journal of Hospitality and Tourism Management*. – 2003. – Vol. 10. – Issue 1. – Pp. 60–79.
17. Gomezelj D. O. Competitiveness of Slovenia as a tourist destination / D. O. Gomezelj // *Managing Global Transitions*. – 2006. – Vol. 4. – Issue 2. – Pp. 167–189.
18. Azzopardi E. The international competitiveness of Malta as a tourist destination [Electronic source] / E. Azzopardi. – Access: <http://openair.rgu.ac.uk>.
19. Croes R. Measuring and explaining competitiveness in the context of small island destinations / R. Croes. – *Journal of Travel Research*. – 2011. – No. 4. – Pp. 431–442.
20. Crouch G. I. Destination competitiveness: an analysis of determinant attributes / G. I. Crouch // *Journal of Travel Research*. – 2011. – Vol. 50. – Issue 1. – Pp. 27–45.
21. Gardiner B. R. Competitiveness, productivity and economic growth across the European regions / B. R. Gardiner, P. L. Martin, P. Tyler // *Regional studies*. – 2004. – Vol. 9. – Pp. 1045–1067.
22. Lengyel I. The Pyramid Model: Enhancing regional Competitiveness in Hungary / I. Lengyel // *Acta Oeconomica*. – 2004. – No. 3. – Pp. 323–342.
23. Papp Z. Factors influencing the tourism competitiveness of former socialist countries / Z. Papp, A. Raffay // *Human geographies – journal of studies and research in human geography*. – 2011. – Vol. 5. – Issue 2. – Pp. 21–30.
24. Saaty T. L. The analytic hierarchy process: planning, priority setting, resource allocation / T. L. Saaty. – New York: McGraw-Hill, 1980.
25. Туристична діяльність в Україні у 2013 році. Статистичний бюлетень Державної служби статистики України [Електронний ресурс]. – Режим доступу: [http://ukrstat.org/uk/druk/publicat/Arhiv\\_u/15/Arch\\_td\\_bl.htm](http://ukrstat.org/uk/druk/publicat/Arhiv_u/15/Arch_td_bl.htm).
26. Lovingwood P. E. Regional analysis of South Carolina Tourism / P. E. Lovingwood, L. E. Mitchell // *Annals of tourism research*. – 1989. – Vol. 16. – Pp. 301–317.

## Summary

The theoretical approaches to the assessment of the competitiveness of tourism regions are analyzed. The method of calculating the integral indicator of the competitiveness of tourist destinations is offered. The tourism competitiveness level of some regions of Ukraine is calculated.

**Keywords:** tourism region's competitiveness, parametric method for assessing the competitiveness, parametric indexes, integral index.

**JEL classification:** R11

**UD classification:** 338.487:339.137.2(477)

Date of acceptance: 18.08.2014.