

RESEARCH ON THE CONCENTRATION OF TOURIST ARRIVALS IN ROMANIA

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Abstract

The paper aimed to analyze the concentration of tourist arrivals in Romania based on National Institute of Statistics Data for the period 2008-2013. In Romania the tourists arrivals increased reflecting a higher demand for touristic attractions of the country. In 2013, the number of tourist arrivals accounted for 7,943,153, being by 11.47 % higher than in 2008, when it was 7,125,307 arrivals. The highest number of tourist arrivals is in the Centre, Bucuresti-Ilfov and South East regions, totalizing 56.19 % of the total number of tourist arrivals, and the lowest number of tourists was recorded in South West Oltenia. The regions where the number of tourists increased were Centre, Bucuresti-Ilfov, South West, North East and West, and the regions where the number of tourist arrivals declined were the South East, South Muntenia and North West. The Herfindhal-Hirschman Index has small values, closer to zero, reflecting a relative uniformity among regions. It varied between 0.1387 in 2008 and 1.490 in 2013. The Gini-Struck Coefficient ranged between 0.1252 in the year 2008 and 0.1658 in the year 2013, reflecting again a relative uniform distribution of tourists arrivals by development region, in all the years, except 2012, when its value accounted for 0.51, reflecting a moderate concentration among regions. The low degree of concentration is justified by the large variety of attractions Romania could offer in all the regions. It is about cultural heritage, historical place, landscapes, gastronomy, accommodation units at various prices.

Key words: concentration, development regions, Gini-Struck index, Herfindhal-Hirshman coefficient, Romania, tourist arrivals

INTRODUCTION

The modern civilization allots an important role to tourism which is seen as a complex social and economic phenomenon, an essential activity in the life of nations. The evolution of tourism nowadays reflects the freedom of travel and the evolution of society [13].

Romania could be considered one of the most beautiful countries in Europe because of its nice landscapes, rich traditions and culture, but its touristic potential is not enough utilized. [4, 8].

In Europe, Romania is one of the countries where the number of arrivals has been increasing constantly in the past years. The only exception is the years of the economic crisis, but the same tendency appeared in these years throughout the whole continent and worldwide. Romania is on 34th position on the list of tourist arrivals [2].

The number of tourist arrivals increased and

in the period 2008-2013 the growth rate was 12.89 %. This was due to the growth of household income during this period, which led to increase in spending on tourism activities of the population [3, 14].

However, despite its high touristic potential, in comparison with Slovakia, Serbia, Bosni-Hertzevovina, Belarus and Rep.Moldova, Romania has more tourist inflows. But compared to Slovenia, Bulgaria, Czech Republic, Hungary, Poland has a lower number of tourists, without making comparisons with the countries in the top: France, Spain and Italy[5].

The development of the tourism is considered as a priority economic option, having in mind the high potential for a large variety of tourism types. The planning of the destinations and the availability of resources are destined to support the strategies of sustainable tourism development in Romania [1, 7].

In this context, the present paper aimed to analyze the dynamics of the number of tourists arrivals and its distribution by development region and to establish the concentration degree using Herfindhal-Hirschman index and Gini-Struck coefficient.

MATERIALS AND METHODS

The paper is based on the empirical data provided by National Institute of Statistics, in Romanian Tourism Statistical Abstract 2010, 2012 and 2014 [9,10,11]. The period of reference was 2008-2013.

The concentration of tourists arrivals in Romania was determined by two methods: Herfindhal-Hirschman Index and Gini-Struck Coefficient.

The Herfindhal-Hirschman Index (HHI) was calculated using the formula:

$$HHI = \sum_{i=1}^n g_i^2 \quad (1)$$

where n is the number of micro regions of development, in Romania $i=1, \dots, 8$, and g_i^2 is the square of the share of each micro region in the total number of tourists arrivals. The HHI Index values could range between $HHI=0$,

meaning a perfect uniformity among regions, and $HHI=1$ meaning a perfect concentration, reflecting high discrepancies among regions. [6]

The Gini-Struck coefficient was determined using the formula:

$$GS = \sqrt{\frac{n \sum_{i=1}^n g_i^2 - 1}{n-1}}$$

The values of GS coefficient also vary between $GS=0$, reflecting a perfect equity among regions and $GS=1$, reflecting a perfect inequity [12].

The results were tabled and graphically represented and the corresponding comments were made.

RESULTS AND DISCUSSIONS

The number of tourists arrivals has followed an increasing trend in the analyzed period. So, in 2013, the number of tourist arrivals accounted for 7,943,153 arrivals, being by 11.47 % higher than in 2008, when it was 7,125,307 arrivals. (Fig.1.).

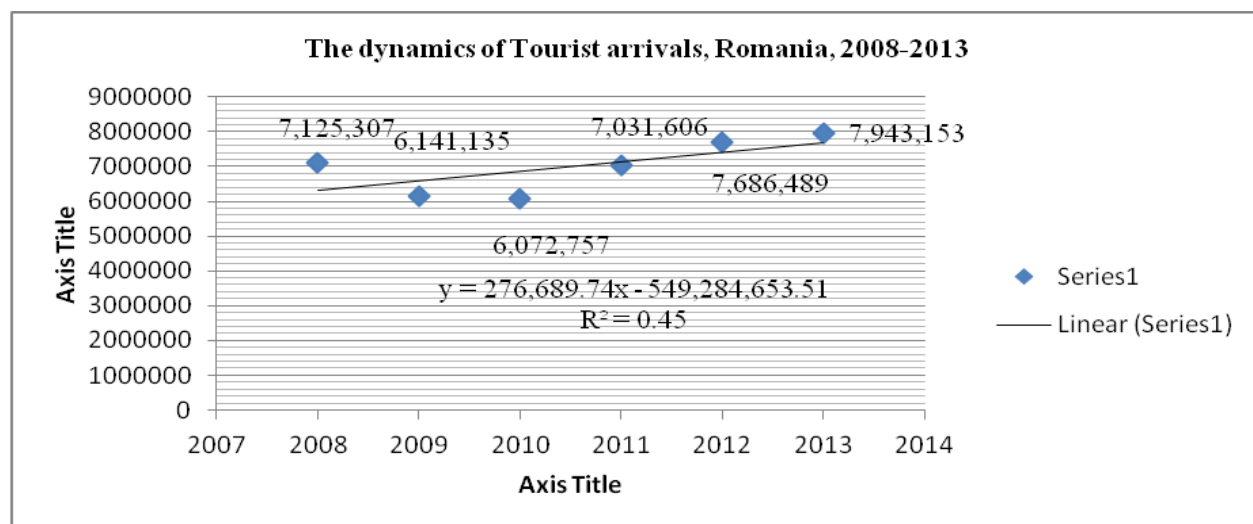


Fig.1. Tourist arrivals, Romania, 2008-2013

Source: Own designed based on NIS Data, [9,10,11].

The dispersion of tourist arrivals by development region. There are differences between the development regions regarding the number of tourist arrivals. In 2013, the highest number of tourist arrivals was noticed in the Centre (23.41 %), Bucuresti-Ilfov (18.1 %) and South East regions (14.68%). The

lowest number of tourists was recorded in South West Oltenia (5.79%).

The number of tourist arrivals decreased in the period 2008-2013 in the following regions: South East (-10.87%), South Muntenia (-9.44 %), and North West (-0.96%).

But, there are regions where the number of tourists increased as follows: Centre (+44%), Bucuresti-Ilfov (+34.48%), South West (+7.13 %), North East (+4.18 %), and West (+1.55 %) (Table 1).

Table 1. Tourist arrivals by region of development, Romania, 2008-2013

	2008	2009	2010	2011	2012	2013	2013/2008 %
North East	725,646	656,501	620,961	696,188	740,577	756,006	104.18
South East	1,308,569	1,157,087	1,044,043	1,134,824	1,263,278	1,166,418	89.13
South Muntenia	750,157	591,251	572,912	616,401	692,810	679,360	90.56
South West Oltenia	429,370	355,114	337,102	426,845	454,676	460,026	107.13
West	673,814	575,118	542,801	639,657	674,981	684,303	101.55
North West	908,076	732,474	702,838	799,304	852,523	899,370	99.04
Centre	1,291,514	1,072,785	1,126,887	1,435,771	1,654,856	1,859,853	144.00
Bucuresti Ilfov	1,038,161	989,805	1,125,213	1,282,616	1,352,788	1,437,737	134.48
Total	7,125,307	6,141,135	6,072,757	7,031,606	7,686,489	7,943,153	111.47

Source: Own calculations based on NIS Statistical Data, [9,10,11].

The evolution of tourists arrivals by development region is graphically presented in Fig.2.

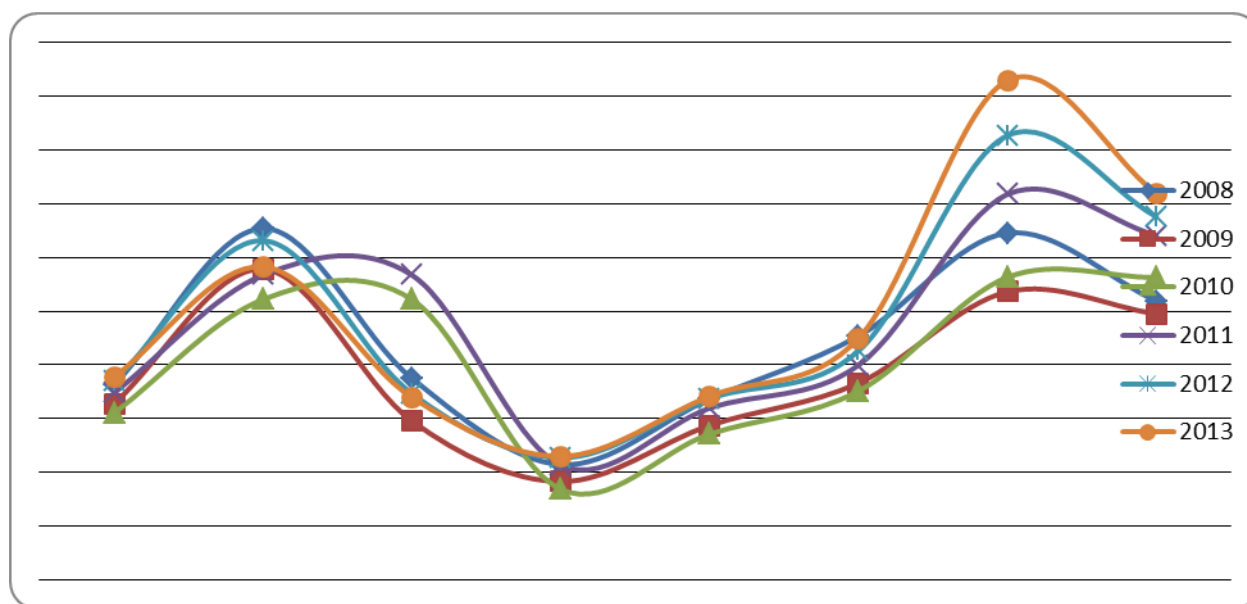


Fig.2. Evolution of tourist arrivals by development region, Romania, 2008-2013

Source: Own design based on NIS Data, [9,10,11].

The Herfindhal-Hirschman Index (HHI) is in general very small and closer to zero, reflecting a relative uniformity among regions. It ranged between 0.1387159 in 2008 and 0.149076 in 2013, showing a slight increasing trend. In the year 2009, the Herfindhal-Hirschman Index was 0.198761, the highest value in the whole analyzed period, 2008-2013 (Table 2).

The Gini-Struck Coefficient (GS) is presented in Fig.3. It ranged between 0.1252 in the year 2008 and 0.1658 in the year 2013. However, the highest value GS=0.51 was recorded in 2012 reflecting that it was a moderate concentration among regions regarding the number of tourists arrivals.

Table 2. Tourist arrival concentration, Romania, 2008-2013, Calculation of Herfindhal-Hirshman Index (HHI)(g²)

Region	2008	2009	2010	2011	2012	2013
North East	0.010404	0.011449	0.010404	0.09801	0.09216	0.009025
South East	0.033856	0.035344	0.029584	0.025921	0.026896	0.021609
South Muntenia	0.011025	0.009216	0.008836	0.007744	0.00810	0.007396
South West Oltenia	0.003624	0.00360	0.003136	0.003721	0.003481	0.003364
West	0.0089491	0.008836	0.007921	0.008281	0.007744	0.007396
North West	0.016129	0.014161	0.0113456	0.012996	0.012321	0.012769
Centre	0.033124	0.030625	0.034596	0.041616	0.046225	0.054756
Bucuresti Ilfov	0.021609	0.025921	0.034225	0.03212	0.030976	0.032761
HHI	0.1387159	0.198761	0.142158	0.132403	0.144959	0.149076

Source: Own calculations.

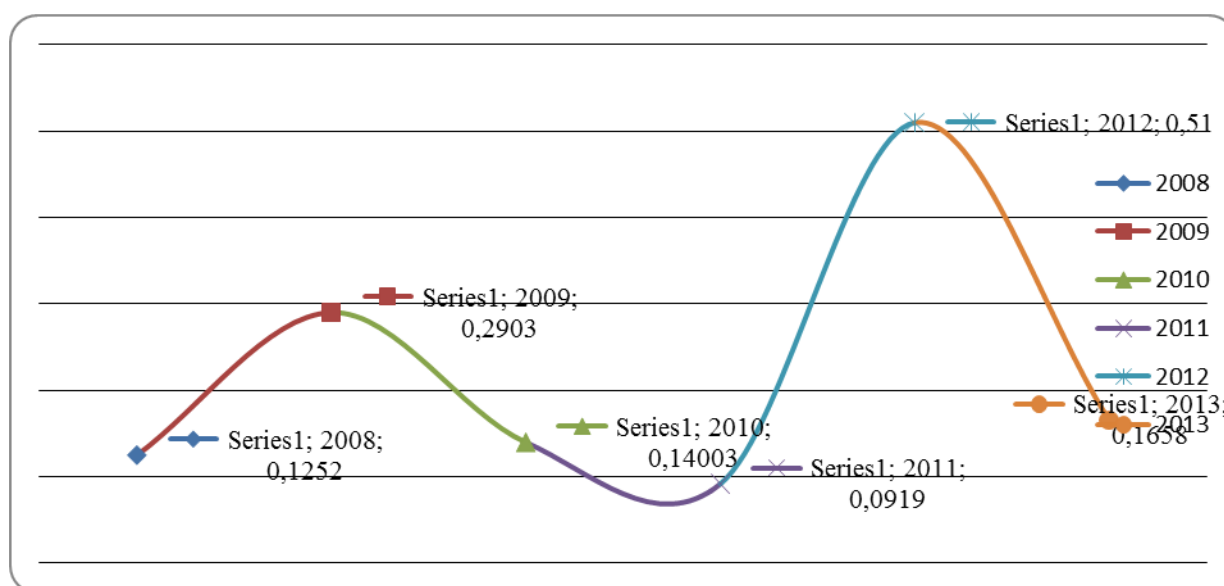


Fig.3.Evolution of Concentration of Tourist arrivals in terms of Gini Struck Coefficient

Source: Own calculations and design.

CONCLUSIONS

In Romania the tourists arrivals increased in the analyzed period reflecting a higher demand for touristic attractions of the country. But there are differences among development regions, as follows: the highest number of tourist arrivals is in the Centre, Bucuresti-Ilfov and South East regions, totalizing 56.19 % of the total number of tourist arrivals. The lowest number of tourists was recorded in South West Oltenia.

The regions where the number of tourists increased were Centre, Bucuresti-Ilfov, South West, North East and West.

The number of tourist arrivals declined in the period 2008-2013 in the South East, South Muntenia and North West.

The Herfindhal-Hirschman Index has small values, closer to zero, reflecting a relative uniformity among regions.

The Gini-Struck Coefficient ranged between 0.1252 in the year 2008 and 0.1658 in the year 2013, reflecting again a relative uniform distribution of tourists arrivals by development region, in all the years, except 2012, when its value accounted for 0.51, reflecting a moderate concentration among regions.

The low degree of concentration is justified by the large variety of attractions Romania could offer in all the regions. It is about cultural heritage, historical place, landscapes, gastronomy, accommodation units at various prices.

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