

# A ROMANIAN TOURISM MARKET ANALYSIS – DEVELOPMENTS AND TRENDS AFTER THE EU ACCESSION

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*Abstract: - In Romania, a country of rich touristic heritage, the total contribution of tourism to the 2014 GDP was 4.8% and, according to the country report published by the World Tourism and Travel Council (WTTC), this contribution is expected to rise to only 5.1% over the next decade. Obviously, for an emerging economy with a high touristic endowment this current condition cannot be satisfying. In this paper we intend to accomplish a specific analysis of the tourism market evolution after its EU accession. Our undertaking starts from two complementary questions: How did the Romanian tourism market develop, following the country's EU accession? Are there any tourism development gaps between the country's counties? Our research includes assessments of both the touristic demand and supply by counties and the municipality of Bucharest, as well as of the county groupings resulted from a cluster analysis using 6 indices (2 for demand, 2 for supply and 2 aggregate ones). The assumptions we start from are that a positive impact has been induced on Romania's tourism after its accession into the EU, but in terms of its regional development, major development gaps between counties still persist and even deepen.*

*Key words: - tourism market, tourism demand, tourism supply, cluster analysis, Romania*

*JEL Classification L83, L89, Z 32, Z39, O52*

## 1. Introduction

The Romanian tourism market evolution following the country's transition to the market economy is a topic approached by many researchers, both Romanian and foreign, in their studies. Mazilu (2007) analyzes the Romanian tourism market after the global economic crisis from the tourist's typology viewpoint, considering how the tourists' flows are formed. He is highlighting the fact that Romania has a limited tourism offer and a quite poor infrastructure, both in general and specific terms. Furthermore, Mazilu contends that Romania has ceased to be an attractive tourism and travel destination in terms of its price to quality ratio. "According to the market researchers, more than half of the 1100 hotels from Romania operate in compliance with European standards and 45% of them are open only during the summer season" Mazilu (2007). Rabontu and Vasilescu (2012) look at the Romanian tourism market considering a number of specific indices: total number of employees, tourism-generated GDP, accommodation capacity, index of the net usage of in-function touristic accommodation capacity (CUC)<sup>1</sup>, by ownership type, destinations and categories of specific structures.

On the other hand, there are research papers that start from the assumption that the evolution of the tourism industry may trigger changes in the entire economy of a country. As such, we notice that there are various

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<sup>1</sup> In this paper the Index of the net usage of in-function touristic accommodation capacity is named, for short, CUC (capacity usage coefficient)

authors that have scanned the rural tourism market over the years preceding Romania's and other ex-communist countries' EU accession. For instance Hall (1998) stresses upon the part played by tourism in the Eastern and Central European countries' (ECEC) economic restructuring process. Against the backdrop of the relationship between tourism and sustainable development, he explores rural tourism in South-Eastern Europe. Also, in the context of the relationship between the rural development strategies and tourist activity, Naghiu et al (2005) show that rural tourism might become a domestic demand growth factor in Romania.

The regional gap issue has been tackled from the socio-economic angle, either by looking at one country's regions – as for instance Greece's, where the economic activities' inequitable spatial distribution has been demonstrated by Ioannides and Petrakos (2000) -, or by considering tourism as a regional development determinant, as in the case of the Baltic coastal areas research, by Spiriajevas (2008). It is also worth mentioning a decade-old study by Seckelmann (2002) which sheds light on the Turkish mass tourism concentration in the Western and Southern parts of the country that has contributed to deepening the regional development gap through large-scale touristic flows.

Although our research is unique in approaching the chosen topic from the spatial angle - by looking at the tourism development disparities between the Romanian administrative units, the counties – the method used by us can be traced in various other studies: Lupsa-Tataru (2007) performed such a comparative analysis on the industrial development of the Romanian regions, while Sandu (2011) looked at the regional development disparities from the social point of view. Trying to answer questions such as: What is the current configuration of the development disparities in Romania? Have they been increasing, or decreasing in time? To what extent the regional development policies play a part in the dynamics of these disparities? - the author reaches to the conclusion that “... *the spatial development issues in Romania cannot be solved solely by regional-type changes, but also by local administration ones.*” (Sandu, 2011).

With a view to analyzing the tourism activity in Romania's counties, six indices, specific to the tourism demand and supply have been considered for the 2007-2013 time lapse: two of them featuring demand, two featuring supply and the other two defining the demand/supply relationship. To assess the evolution of the Romanian tourism market, firstly by grouping the counties on touristic activity criteria and then by identifying the developed ones from the others, we used a cluster analysis. This is a research tool the purpose of which is “...*to identify a set of homogeneous groupings, by clustering the elements so that the variation within the group is minimized, while the variation between groups is maximized*” (Babucea, 2007).

The research is two-step structured:

- **First step:** We perform the empirical analysis of the statistical data available for the 2007-2013 time-span:
  - Tourism demand indices – number of tourists; number of overnight stays;
  - Tourism supply indices – tourist accommodation in use; establishments for tourists' reception with accommodation function;
  - Calculation and analysis of the aggregate indices – the average stay; index of net usage of in-function touristic accommodation capacity (CUC):

$$(Eq.1) \quad \text{The average stay} = \frac{\text{number of overnight stays}}{\text{number of tourists}}, \text{ in number of days}$$

$$(Eq.2) \quad \text{CUC} = \frac{\text{number of overnight stays}}{\text{tourist accommodation in use}}, \text{ in \%}$$

- **Second step:** We perform the cluster analysis and the Romanian counties' grouping in the first and last years of the chosen time space, that is in 2007 and 2013.

The Statistical software was used for the cluster analysis, while the grouping was done using the hierarchic aggregation technique (the Ward method) which confers homogeneity to clusters. The Manhattan distance (City Block) which is calculated as a sum of the absolute values of the differences between the coordinates of the analysed variables was used to form the clusters. The above mentioned indices were the main components. Further, the results obtained have been interpreted.

## 1. The static and dynamic analysis of the tourism-specific indices

Nationally, in 2013 the **total number of tourists** reached 7 943 153 people, that is 14% more than in 2007, when just 6 971 925 tourists had been registered. While in 2007 the most visited county in Romania was Constanta, followed by Bucharest and, at considerable distance, by Brasov, Prahova and Cluj, in 2013 - as the number of tourists visiting Bucharest has been considerably growing - the capital city ranked first, replacing Constanta (Table 1). As such, the 2013 new hierarchy placed Bucharest first, followed by Constanta and Brasov in the second and third positions, respectively. While Brasov ranked third just as it did in 2007, the county of Mures was a new entrance in top five, ranking fourth, ahead of Prahova, which climbed down a step, in the fifth position. At the other extreme, the least visited counties were, both in 2007 and in 2013, the counties of Calarasi and Teleorman. It is worth noticing here that the disparity between the most visited and the least visited counties has increased by 44% (or, in real terms, by 404 878 tourists) in 2013 (1 317 155 tourists), as compared to 2007 (912 227 tourists), signalling a further deepening of the regional tourism development gap.

**Table 1. Romania: Tourist arrivals, extreme levels by counties, 2007 and 2013**

Top 5	The lowest levels (number of tourists)				The highest levels (number of tourists)			
Rank/year	2007		2013		2007		2013	
#1	Călărași	13 927	Călărași	11035	Constanța	926 204	Bucharest	1 328 190
#2	Teleorman	14 693	Teleorman	13176	Bucharest	908 921	Constanța	859 634
#3	Sălaj	16 337	Giurgiu	24983	Brașov	556 816	Brașov	834 979
#4	Olt	16 461	Botoșani	33349	Prahova	416 220	Mureș	394 834
#5	Giurgiu	22 842	Sălaj	33367	Cluj	372 007	Prahova	366 276

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro))

As to the evolution in terms of **number of arrivals**, significant increases have been registered in the counties of Olt and Salaj - where the number of tourists has doubled - but also in Alba, Covasna and Mures, with the last county mentioned having accomplished an over 55% growth in its tourist numbers over the seven years considered (Table 2). In real terms, this accounted for over 250 thousands more tourists, who raised the total to about 400 thousands over the whole time lapse. On the other hand, important decreases in tourist numbers have been recorded in the Ialomita, Calarasi and Hunedoara counties over the same interval, as well as in Prahova, where the absolute decline cumulated 50 thousands tourists.

**Table 2. Romania: Tourist numbers, extreme changes by counties, 2007 and 2013**

Top 5	Negative developments				Positive developments			
Rank	County	Changes 2013/2007 (%)	2007	2013	County	Changes 2013/2007 (%)	2007	2013
#1	Ialomița	-25.9	54 232	40 189	Olt	+116.7	16 461	35 678
#2	Călărași	-20.8	13 927	11 035	Sălaj	+104.2	16 337	33 367
#3	Hunedoara	-19.0	109 054	88 306	Alba	+ 88.5	54 054	101 869
#4	Prahova	-12.0	416 220	366 276	Covasna	+ 59.1	52 458	83 468
#5	Vrancea	-11.1	38 471	34 196	Mureș	+ 55.8	253 454	394 834

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro))

**The total number of overnight stays** has declined in Romania by 6%, from 20 593 349 nights in 2007, to 19 362 671 nights in 2013 (Table 3). Both in 2007 and in 2013, Constanta and Bucharest ranked first by the criterion of overnight stays, followed by Valcea, Brasov and Bihor. At the other extreme, with the lowest number of overnight stays, we found the counties of Teleorman, Olt and Calarasi, in 2007, and Calarasi, Teleorman and Vrancea, in 2013.

**Table 3. Romania: Tourists overnight stays, extreme levels by counties, 2007 and 2013**

Top 5	The lowest levels (nights)				The highest levels (nights)			
Rank/year	2007		2013		2007		2013	
#1	Teleorman	31 965	Călărași	34 313	Constanța	4 469 418	Constanța	3 418997
#2	Olt	49 915	Teleorman	39 434	Bucharest	1 866 217	Bucharest	2 224629
#3	Călărași	52 120	Vrancea	55 898	Vâlcea	1 257 688	Brașov	1 754320
#4	Sălaj	54 213	Botoșani	58 801	Brașov	1 191 469	Vâlcea	1 049399
#5	Botoșani	57 286	Vaslui	61 570	Bihor	1 139 245	Bihor	952 163

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro))

Looking at the dynamics of the overnight stays we found that the balance between the extreme values of this index has diminished in Romania by over 1 million nights, from 4 437 453 in 2007, to 3 384 684 in 2013, but that is not a sign of improvement, as it might seem. In fact, on the contrary, it reflects a negative development, because it results almost entirely from a reduction of the overnight stays in Constanta, which has kept ranking first, recording the largest number of overnight stays both in 2007 and in 2013 (Table 3). On the other hand, we also notice considerable increases of the overnight stays (Table 4) in the case of Alba, Gorj and Salaj counties, which have ranked low in touristic activities, but have slightly improved. Still, the most remarkable growth was registered in one of the champion counties (ranking 4th in 2013, see Table 3), where the total number of nights increased with over 550 thousands, accounting for an almost 50% growth over the considered time span.

On the negative side, we spotted unfavourable evolutions in the Bistrita-Nasaud, Ialomita and Calarasi counties, but we found as very significant in terms of absolute loss the cases of Arges (with over 100 000 nights lost over the considered time lapse) and Braila (with an almost 100 000 tourist-days loss).

**Table 4. Romania: Tourists overnight stays, extreme changes, by counties, 2007 and 2013**

Top 5	Negative evolutions (nights)				Positive evolutions (nights)			
Rank	County	Changes 2013/2007 (%)	2007	2013	County	Changes 2013/2007 (%)	2007	2013
#1	Bistrița-Nasăud	-44.6	253 267	140407	Alba	+81.0	117 665	213 012
#2	Ialomița	-39.2	331 604	201762	Gorj	+62.3	105 492	171 171
#3	Călărași	-34.2	52 120	34313	Salaj	+57.6	54 213	85 465
#4	Argeș	-32.1	348 637	236807	Brasov	+47.2	1 191 469	1 754 320
#5	Brăila	-31.2	297 680	204760	Olt	+35.9	49915	67 810

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro))

Between 2007-2013 the **tourist accommodation in use** at the national level has grown by 34.5%, from 57 137 649, to 77 028 488 number of beds - days. The county of Constanta (10 000 beds - days), but also the county of Brasov, the Bucharest municipality, Prahova and Valcea counties have the largest accommodation capacities in use (Table 5).

In contrast, in 2007 the counties of Olt, Giurgiu and Calarasi ranked the lowest in terms of tourist accommodation in use, position which they have preserved by 2013 too, with a minor switch in rankings between themselves in the negative top 5, in spite of some capacity increases that have been recorded meanwhile. (Calarasi came in first position, followed by the newcomer Teleorman, ranking the second, and further, by Giurgiu Olt and Vaslui with slight improvements of their accommodation capacities, over the considered time lapse).

**Table 5. Romania: Tourist accommodation in use, extreme levels, by counties, 2007 and 2013**

Top 5	The lowest levels (beds - days)				The highest levels (beds - days)			
	2007		2013		2007		2013	
#1	Olt	145 712	Călărași	223 363	Constanța	9 981 146	Constanța	9 979 198
#2	Giurgiu	194 967	Teleorman	278 040	Brașov	4 704 712	Brașov	9004497
#3	Călărași	199 284	Giurgiu	278 774	Bucharest	4 332 982	Bucharest	6 908 584
#4	Vaslui	225 159	Olt	304 078	Prahova	3 177 920	Prahova	4 174 990
#5	Sălaj	225 524	Vaslui	312 076	Vâlcea	2 625 499	Vâlcea	3 377 184

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro))

As to the disparity between the best and the worst equipped counties in terms of tourist accommodation in use, this has remained almost unchanged over the time-frame of our analysis, because the loss of 79 599 accommodation beds - from 9 835 434 in 2007, to 9 755 835 in 2013 - was quite insignificant (just -0.8%). With the exception of Ialomita (where the capacity declined by -3.4%) and Constanta (which was stagnant), all the other counties were on the rise during the period from this point of view. As such, we notice the doubling, or more than doubling, of the number of beds - days in the counties of Salaj, Olt, Alba and Harghita and the remarkable rise, with over 4 million beds - days, accomplished by Brasov.

**Table 6. Romania: Tourist accommodation in use, extreme changes, by counties, 2007 and 2013**

Top 5	Negative evolutions (beds - days)				Positive evolutions (beds - days)			
Rank	County	Changes 2013/2007 (%)	2007	2013	County	Changes 2013/2007 (%)	2007	2013
#1	Ialomița	-3.4	579 716	560 153	Sălaj	+128.7	225 524	515 686
#2	Constanța	+0.0	9 981 146	9 979 198	Olt	+108.7	145 712	304 078
#3	Bistrița-Năsăud	+4.5	766 878	801 563	Alba	+103.8	558 806	1 138 574
#4	Sibiu	+4.9	1 752 319	1 837 630	Harghita	+100.3	977 173	1 956 867
#5	Bihor	+7.0	2 426 194	2 596 329	Brașov	+ 91.4	4 704 712	9 004 497

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro))

The number of establishments for tourists' reception with functions of accommodation have substantially grown in Romania - by 28%, from 4 694 to 6 009 units - although not as much as the accommodation capacity. If in 2007 Constanta ranked first, with almost 1000 units, followed by the counties of Brasov, Harghita, Suceava and Prahova, in 2013, following a decline in Constanta's number of units, coupled with an increase in Brasov's, the two counties switched positions in the hierarchy, and Brasov took the lead. At the antipole, the counties lagging behind most were Olt (in 2007) and Giurgiu (in 2013), followed by Calarasi, Teleorman and Botosani.

**Table 7. Romania: Establishments for tourists' reception with functions of accommodation, extreme levels, by counties, 2007 and 2013**

Top 5	The lowest levels				The highest levels			
Rank/year	2007		2013		2007		2013	
#1	Olt	6	Giurgiu	13	Constanța	998	Brașov	750
#2	Călărași	8	Călărași	15	Brașov	471	Constanța	745
#3	Teleorman	9	Teleorman	17	Harghita	397	Harghita	322
#4	Botoșani	11	Botoșani	18	Suceava	236	Suceava	295
#5	Vaslui	11	Olt	19	Prahova	223	Prahova	293

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro))

Developments over the recent years have determined a 255 units drop (-25.7%) of the disparity between the highest and the lowest endowment levels in 2007 (992 accommodation units) and in 2013 (737 accommodation units), respectively. Only five counties have recorded declines in their number of establishments for tourists' reception having functions of tourist accommodation, but out of this group Constanta stands out with the worst evolution in this matter. The most significant rise (by over 200%) took place in the counties having a small number of accommodation units, and, out of this group, the most remarkable evolutions were the ones of the Covasna and Alba counties, which have recorded important increases in both real and relative terms.

**Table 8. Romania: Establishments for tourists' reception with functions of accommodation, extreme changes, by counties, 2007 and 2013**

Top 5	Negative Evolutions				Positive Evolutions			
Rank	County	Change 2013/2007 (%)	2007	2013	County	Change 2013/2007 (%)	2007	2013
#1	Constanța	-25.35	998	745	Vaslui	+281.82	11	42
#2	Harghita	-18.89	397	322	Sălaj	+262.50	16	58
#3	Sibiu	-18.25	137	112	Olt	+216.67	6	19
#4	Giurgiu	-13.33	15	13	Covasna	+168.42	38	102
#5	Cluj	-2.37	211	206	Alba	+163.04	46	121

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro))

The **first aggregate index** is the **average stay**, which has been falling by 17.5% between 2007-2013, country-wide, accounting for a half-a-day loss, from almost 3 days in 2007 (2.95 days, to be more accurate), to under two days and a half (2.44 days) in 2013. The longest average stay was recorded in Covasna, both in 2007 (over 8 days) and in 2013 (over 5 days), high levels of this index having been also identified in Caras-Severin, Ialomita, Valcea and Bihor in 2007, and in Ialomita, Valcea, Caras-Severin and Constanta, in 2013 (Table 9).

In contrast to these, the counties of Sibiu, Satu Mare, or Vaslui recorded average stays below 1.7 days. These values fell further to 1.4 days in Ilfov and 1.6 days in Arges, by 2013.

**Table 9. Romania: the average stay, extreme levels, by counties, 2007 and 2013**

Top 5	The lowest levels (number of days)				The highest levels (number of days)			
Rank/year	2007		2013		2007		2013	
#1	Sibiu	1.6	Ilfov	1.4	Covasna	8.2	Covasna	5.3
#2	Satu Mare	1.6	Argeş	1.6	Caraş-Severin	7.2	Ialomiţa	5
#3	Vaslui	1.7	Vrancea	1.6	Ialomiţa	6.1	Vâlcea	5
#4	Vrancea	1.7	Sibiu	1.6	Vâlcea	5.6	Caraş-Severin	4.5
#5	Ilfov	1.8	Bucharest	1.7	Bihor	5	Constanţa	4

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro))

This adverse evolution has determined the narrowing of the disparity between extremes by 2.7 days (or by 40%), from 6.6 days in 2007, to 3.9 days in 2013. Extremely negative evolutions of the average stay have been identified in counties such as Bistrita-Nasaud, Olt, Caras-Severin, Arges or Covasna, where the drop was in the range of 35%-40%, which in the case of Caras-Severin or Covasna was the equivalent of more than two and a half days (see Table 10). Other counties, such as Teleorman, Gorj and Tulcea seemed to have recorded quite important percentage increases of their average stay, but that was only the base effect, as the values of reference had been very low (average stay around 2 days).

**Table 10. Romania: The average stay, extreme evolutions, by counties, 2007 and 2013**

Top 5	Negative Evolutions				Positive Evolutions			
Rank	County	Changes 2013/2007 (%)	2007 (zile)	2013 (zile)	County	Changes 2013/2007 (%)	2007 (zile)	2013 (zile)
#1	Bistriţa-Năsăud	-39.4	3.5	2.1	Teleorman	+37.6	2.2	3
#2	Olt	-37.3	3	1.9	Gorj	+25.4	1.8	2.3
#3	Caraş-Severin	-37.1	7.2	4.5	Tulcea	+19.5	2	2.4
#4	Argeş	-36.9	2.5	1.6	Satu Mare	+ 5.1	1.6	1.7
#5	Covasna	-35.8	8.2	5.3	Vaslui	+ 3.7	1.7	1.7

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro))

The **second aggregate index** is the **Index of net usage of the touristic in-function accommodation capacity (CUC)**. Nationally, this coefficient had a negative evolution over the considered time lapse, losing almost 11 percentage points (pp), from 36%, to 25,1%. This pictures a substantial downfall of the touristic activity. The highest levels of this coefficient in 2007, of around 50% (Table 11), were recorded in Ialomita, Covasna, Braila, Valcea and Bihor. In 2013, besides Bihor, Ialomita and Covasna - which have preserved their top positions, but with much lower levels of CUC (35%-36%) – we also found the county of Constanta and Bucharest, the capital-city. We would like to point out, here, that there are different reasons why these two groups of counties rank high in terms of their CUC levels: while in the case of Constanta and Bucharest, both of which benefit from relatively large accommodation capacities, this positioning in the top 5 is the reflection of a truly intense touristic activity, for the first three counties in this hierarchy (Bihor, Ialomita and Covasna), this ranking is not resulting from their intense tourism, but rather from their insufficient accommodation capacity endowment.

**Table 11. Romania: CUC, extreme levels by counties, 2007 and 2013**

Top 5	The lowest levels (%)				The highest levels (%)			
Rank/ year	2007		2013		2007		2013	
#1	Teleorman	13.6	Maramureş	11.2	Ialomiţa	57.2	Bihor	36.7
#2	Vrancea	16.1	Vrancea	12.4	Covasna	56.0	Ialomiţa	36.0
#3	Maramureş	17.4	Teleorman	14.2	Brăila	49.2	Covasna	35.8
#4	Alba	21.1	Botoşani	14.8	Vâlcea	47.9	Constanţa	34.3
#5	Buzău	23.4	Călăraşi	15.4	Bihor	47.0	Bucharest	32.2

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro));

Looking at these coefficients, we notice that the disparity between the best and the worst performing counties in terms of CUC has declined by over 18 pp, from 43.6%, to 25.5%; in absolute terms this accounts for a 41.5% reduction.

**Table 12. Romania: CUC, extreme changes, by counties, 2007 and 2013**

Top 5 Rank	Negative Evolutions				Positive Evolutions			
	County	Changes 2013/2007 (%)	2007	2013	County	Changes 2013/2007 (%)	2007	2013
#1	Bistrita-Nasaud	-47.0	33.0	17.5	Tulcea	13.3	25.7	29.1
#2	Arad	-46.2	35.2	18.9	Teleorman	4.2	13.6	14.2
#3	Arges	-44.6	27.8	15.4	Sibiu	-2.8	30.3	29.4
#4	Harghita	-41.7	28.0	16.3	Alba	-11.2	21.1	18.7
#5	Calarasi	-41.3	26.2	15.4	Gorj	-14.5	26.1	22.3

Source: The authors, using the National Statistics Institute database ([www.insse.ro](http://www.insse.ro))

The counties of Tulcea and Teleorman have recorded a positive evolution of CUC, but only in the case of Tulcea the change is significant enough, with an increase from over 25%, to nearly 30% (Table 12). On the other hand, important decreases, by over 40%, have taken place in the Bistrita-Nasaud, Arad, Arges, Harghita and Calarasi counties, where CUC has declined with 10pp-17pp.

## 2. The cluster analysis

The results of the cluster analysis for 2007 and 2013 reveal the following cluster features:

- **Clusters 1 and 2** bring together the counties with unsatisfactory levels of tourism indices;
- In the counties included in **cluster 3**, touristic activity may be considered average as the aggregate indices, the average stay and Index of net using of the touristic accommodation capacity in function, score relatively high;
- **Cluster 4** includes counties with tourism indices situated near the country's averages;
- **In clusters 5 and 6** there are counties having an intense tourism activity. They only differ in terms of the average stay, which is low in the counties included in cluster 6.

**Table 13. Cluster description**

CLUSTER	DEMAND	SUPPLY	AVERAGE STAY	CUC
1	LOW	LOW	LOW	LOW
2	AVERAGE - LOW	AVERAGE - LOW	LOW	AVERAGE - LOW
3	AVERAGE - LOW	AVERAGE - LOW	HIGH	HIGH
4	AVERAGE	AVERAGE	LOW	AVERAGE
5	HIGH	HIGH	AVERAGE	AVERAGE-HIGH
6	HIGH	HIGH	LOW	AVERAGE-HIGH

Source: The authors

Hereunder is how the counties clustered in 2007 and 2013:

**Table 14. Cluster composition<sup>2</sup>**

CLUSTER	2007	2013
1	AB, BT, BZ, CL, DJ, GJ, MH, OT, SJ, TR, TL, VS, VN	AB, BC, BN, BT, BZ, CL, DB, DJ, GL, GJ, HD, IS, IF, MH, OT, SM, SJ, SB, TR, TL, VS, VN
2	AR, AG, BC, BN, DB, GL, HR,	AR, AG, HR, MM, NT

<sup>2</sup> AB – Alba Iulia, AG - Argeş, AR – Arad, B – Bucharest, BC – Bacău, BH – Bihor, BN – Bistriţa-Năsăud, BR – Brăila, BT – Botoşani, BV – Braşov, BZ – Buzău, CJ – Cluj, CL – Călăraşi, CS – Caraş Severin, CT – Constanţa, CV – Covasna, DB – Dâmboviţa, DJ – Dolj, GJ – Gorj, GL – Galaţi, GR – Giurgiu, HD – Hunedoara, HR – Harghita, IF – Ilfov, IL – Ialomiţa, IS – Iaşi, MH – Mehedinţi, MM – Maramureş, MS – Mureş, NT – Neamţ, OT – Olt, PH – Prahova, SB – Sibiu, SJ – Sălaj, SM – Satu Mare, SV – Suceava, TL – Tulcea, TM – Timiş, TR – Teleroman, VL – Vâlcea, VN – Vrancea, VS – Vaslui

	<b>HD, IS, IF, MM, NT, SM</b>	
3	BH, BR, CS, CV, GR, IL, VL	BH, BR, CS, CV, GR, IL, VL
4	CJ, MS, PH, <b>SB</b> , SV, TM	CJ, MS, PH, SV, TM
5	CT	<b>BV</b> , CT
6	<b>B, BV</b>	B

Source: The authors

Looking at the two columns of Table 14, we notice the following changes of cluster composition, over the 2007-2013 time-frame:

- Following a CUC drop, some of the counties migrated from cluster 1 to cluster 2, namely: Bacău, Bistrița-Năsăud, Dâmbovița, Galați, Hunedoara, Iași, Ilfov, Satu-Mare;
- Following an unsatisfactory evolution of its specific tourism indices, the county of Sibiu moved from cluster 4, to cluster 1, which is the most crowded of all. This is the most abrupt fall among all Romanian counties, over the considered time span..
- The Brasov county moved from cluster 6, to cluster 5. This was due to the changes in its touristic supply. In its case, the indices suggest a certain closeness to Constanta taking shape, although index of net using the touristic accommodation capacity in function levels still don't confirm it. Another reason of the re-grouping that took place in clusters 5 and 6 resided in the more pronounced drop of the Bucharest average stay as compared to Brasov's.

### 3. Conclusions

Returning to our initial question – How did the Romanian tourism market develop between 2007-2013? – we found out that:

- During the considered time-frame the tourists number has grown in Romania by almost 14%; the total number of overnight stays has decreased by 6%; the tourist accommodation in use has increased by 34.5%; the number of establishments of tourists' reception with functions of tourists' accommodation has grown by 28%. On the other hand, between 2007-2013, the average stay was considerably diminished, by 17.5%, and Index of net using the touristic accommodation capacity in function also had a negative evolution, from 36% to 25.1%, losing almost 11 pp.
- There are a few exceptions to the above at county level, such as: a favourable evolution of both tourism demand and supply identified in Bucharest and in the county of Brasov; remarkable average stay and CUC evolutions in the county of Tulcea.

Therefore, our first hypothesis should be rejected. Romania's EU accession of 2007 did not produced a positive impact on Romanian tourism, at least not yet traceable until 2013.

As to the second question we have been trying to answer – Are there any tourism development gaps between the country's counties? – we notice the following:

- Clusters 5 and 6 include the counties of Constanta and Brasov and Bucharest where tourism market is developed, with both demand and supply at high levels. High touristic traffic and a satisfactory efficiency level measured by average-to-high of index of net using the touristic accommodation capacity in function place Bucharest and Constanta county in top position, quite detached from the rest of the country.
- Cluster 3 brings together counties (BH, BR, CS, CV, GR, IL,VL) in which the aggregate indices (average stay and Index of net using the touristic accommodation capacity in function) have levels which indicate a relatively efficient touristic activity. The composition of this cluster has remained unchanged, the counties of Bihor, Brasov, Caras – Severin, Covasna, Giurgiu, Ilfov and Valcea recording relatively high levels of the average stay and of Index of net using the touristic accommodation capacity in function, against the backdrop of a low-to-average tourism demand'
- In 2007, in clusters 1 and 2, where tourism is undeveloped, there were 26 counties (13 counties in each cluster), accounting for 62% of the total 42 administrative territorial units in Romania (41 counties, plus the municipality of Bucharest).
- In 2013 the number of counties with low level tourism specific indices increased to 27, of which 22 (52%) in cluster 1 and 5 in cluster 2.



- Within clusters major differences may be detected for each of the specific indices. For instance, in Valcea there are 230 establishments of tourists' reception with functions of tourists' accommodation, while in Giurgiu there is only one. In Arad the number of arrivals is almost double the one in Maramures, etc.
- For each of the analyzed indices, there are major differences between the highest levels reached by the best performing counties and the average of the worst performing cluster. For instance: the number of arrivals in Bucharest in 2013 (1 328 190 tourists) was over 16 times higher than the average number of arrivals of cluster 1 (80 638.23 tourists); the number of overnight stays in Constanta in 2013 was almost 27 times larger than the average of this index in cluster 1; the tourist accommodation in use in Constanta was over 13 times higher than the cluster 1 average, in 2013; also in Constanta, and also in 2013, the number of establishments of tourists' reception with functions of tourists' accommodation (998 units) was 16 times larger than that in cluster 1 (62); the average stay in Covasna (5.3 days) was much above the one in Bucharest (1.7 days) or the cluster 2 average (1.9 days); the index of net using the touristic accommodation capacity in function in Ialomita was of 57.2% in 2013, also much above the cluster 2 average (15.7%).

Therefore, according to our analysis the second hypothesis is confirmed: there are major tourism development gaps between Romanian counties.

To conclude, we would only like to add one remark, namely that the main limitation of our research resides in its recourse to only quantitative variables. It is our belief that adding some qualitative components would improve the methodology and generate better results. This and maybe establishing some correlations with tourism investments might become the topic of further research.

#### Acknowledgements

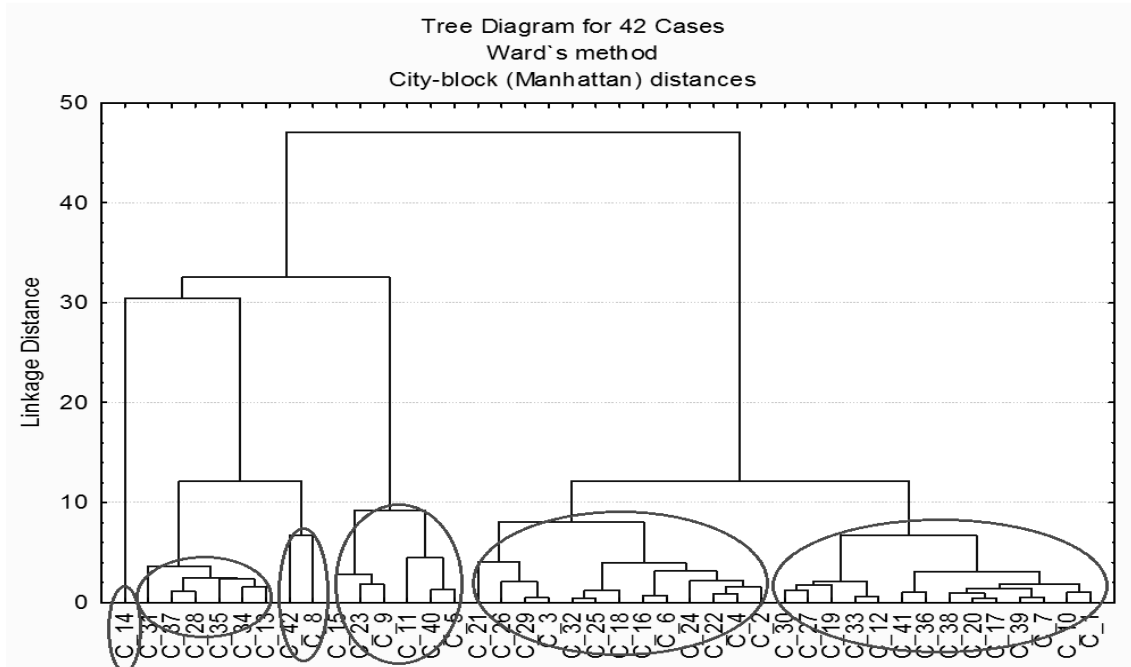
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Annex 1. **Cluster analysis - 2007**



Annex 2. **Cluster analysis - 2013**

