

ANALYSIS OF TOURIST MOVEMENT IN IAȘI COUNTY

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Abstract

The structure of tourism movement in Iași County during 2012–2016 indicated a low rate of foreigner tourists (15.38%) from the total entrances in the county, number of days/tourist for foreigner tourists have also a low rate (18.37%). Average duration of the sojourn had fluctuations during analyzed period (2012–2016) being of 1.84 days for Romanian tourists and 2.33 days for the foreigner tourists. Gross utilization rate of touristy accommodation capacity recorded fluctuant values in those 5 analyzed years (2012–2016), in 2016 being recorded the highest value 35.59 %. From the analysis of touristy movement could be observed a growth of dynamic rate for tourists' number, per total mean dynamic rate show an increase, in average, with 1.126. Absolute average modification of tourists' number recorded 28.18 thousands persons. Average dynamic rhythm for tourists' number was 12.6%.

Key words: entrances, overnight stays, mean duration of stay, dynamic rate
gross utilization rate of tourist accommodation capacity

INTRODUCTION

The great tourism potential of Iași County is due to the historical and cultural touristic resources alongside the natural tourist resources, with landforms bearing the characteristics of Moldavian Plateau and a number of protected areas such as forest reserves Uricani Forest, Cătălina-Cotnari Forest, Roșcani Forest, The Galata Forest and the Humosu Forest; The Fântânele Botanical Reserve (David's Valley) and the Paleontological Reserve: Repedea Hill. The spa tourism potential is represented by the mineral waters from Nicolina (Iași) and Strunga (60 km from Iași).

The cultural and historical tourism potential reflects the history and culture of the analysed tourist destination, Iași County being endowed with various objectives, artistic highly valued and a great tourist attraction. In the category of cultural and historical monuments, a significant role is owned by the historical and art monuments such as: The Palace of Culture, The Palace of Ruginoasa, The Sturdza Castle, The Rosetti-Roznovanu Palace; archaeological or medieval vestiges: Ruins of the Princely Court-Cotnari, vestiges of the Neolithic settlement-Cucuteni; religious

monuments such as The Three Hierarchs Church, Golia Monastery, Galata Monastery, Cetățuia Monastery, Dobrovăț Monastery, "St. Nicholas Prince" Church – Iași, Barboi-Iași Church; buildings of civil architecture: "Dosoftei House", "Cantacuzino-Pășcanu House" from Pașcani, "The Three Sarmale Inn", "The Inn from Ruginoasa", monumental buildings housing cultural and university institutions: "Alexandru Ioan Cuza" University, "Mihai Eminescu" University Central Library, The National Theater; museums such as The History Museum of Moldova, The Art Museum, The Ethnographic Museum, The "Ștefan Popovici" Museum of Science and Technology, memorial houses: "Ion Creangă" House from Țicău, "Mihail Sadoveanu" memorial house, plastic art monuments, which can also be found in Iași County, but especially in the whole city of Iași. The ethnographic and folkloric tourism potential (folk architecture, peasant interior, indoor textiles, folk port, folk ceramics, family habits etc.) is added to all these cultural and historical values [5].

When we talk about the development of tourism and about its integration in the structure of modern economies, is reflected into a continuous enrichment of the content

and by a large diversification of manifestation forms. The participation of tourist movement that is included in a larger social category, associated with all the demands' variety, contributed to the apparition process of new forms of tourism. Also, their adaptation should be permanent to tourists' requirements and to travelling conditions [1], [4], [8], [9].

MATERIALS AND METHODS

The tourists boarding structure with functions for the tourists accommodation is represented by any kind of building or construction, which provides permanently or if necessary seasonally, an accommodation service or other specific services for tourists. There aren't included in the statistical research, the touristy boarding structure with functions such as tourists accommodation with an installed accommodation capacity that is less than 5 places (www.insse.ro).

The existent capacity for tourists accommodation is represented by the number of accommodation places for the tourists usage that is registered in the last document for reception, classification and homologation of the touristy accommodation unit. The places specific to structures of touristy accommodation with functions for complementary touristy boarding (small houses or camping, etc.) to a basic boarding structure (hotel or motel, camping etc.) and the usage of those places is included in the basic structure (www.insse.ro).

The touristy accommodation capacity in function is represented by the number of boarding places available for tourists and provided by the touristy units, taking in account the number of days in which the unit is opened into a certain period of time. It is expressed in places/day. Are excluded places from rooms or units temporary closed due to the lack of tourists, for improvements or by any other reasons (insse.ro).

When we talk about the number of tourists (arrivals) accommodated in touristy boarding units, there are included all the persons (Romanians or foreigners) who are traveling outside their own residence locality, for less than 12 months and who also can stay at least

one night into a touristy boarding unit in the areas which they visit in a specific country; the reason of the journey being other than to have a paid activity in the visited (insse.ro).

Number days/tourist (touristy overnight) is a 24 hours period, starting with hotel hour, for which a person is recorded in the bookkeeping of touristy unit and it is hosted for the paid price, even if effective sojourn stay is lower than the mentioned period. Are also included the overnights afferent to supplementary installed beds (paid by customers) (insse.ro).

The mean duration of sojourn is determined by the rate between numbers of days/tourist (NTZ) to the number of tourists (T) and it reflects the possibility of touristy offer to retain a tourist into a specific area, region or country [2], [6], [7].

$$D_s = \frac{\sum NZT}{\sum NT}$$

where:

D_s - mean duration of the sojourn;

NZT - numbers of days / tourist;

T – the number of tourists.

Utilization index of functional touristy capacity is calculated by rate between numbers of realized overnights at functional touristy capacity from a certain period (www.insse.ro).

$$I_n = (N/C_f) \times 100$$

where: I_n – utilization index of functional touristy capacity;

N – number of overnights recorded into a certain period of a time;

C_f – functional touristy capacity.

Absolute indicators represent a basic form of dynamic series, based on which could be obtained general indicators [3].

Level indicators are the terms of a series formed by absolute indicators ($y_1, \dots, y_t, \dots, y_{t-1}$).

Total level of terms

$(\sum_{t=1}^n y_t)$, only for time interval series with absolute measures.

The absolute modifications

-with fixed base ($\Delta_{t/1}$)

$$\Delta_{t/1} = y_t - y_1 \quad \text{where, } t=2, n$$

-with in chain base (mobile or variable base)

$$(\Delta_{t/t-1} = y_t - y_{t-1})$$

$$\Delta_{t/t-1} = y_t - y_{t-1} \quad \text{where, } t=2, n$$

Relative indicators

It is a presentation way, mainly percentage. In this situation is mandatory that in title or outside the table to be mentioned the rating based so the data interpretation to be correctly done.

Dynamic index:

-with fixed base ($I_{t/1}$):

$$I_{t/1}(\%) = \frac{y_t}{y_1} \times 100$$

-with in chain base ($I_{t/t-1}$):

$$I_{t/t-1}(\%) = \frac{y_t}{y_{t-1}} \times 100$$

Dynamic rhythm:

-with fixed base ($R_{t/1}$):

$$R_{t/1} = I_{t/1}(\%) - 100 \%$$

-with in chain base ($R_{t/t-1}$):

$$R_{t/t-1}(\%) = I_{t/t-1}(\%) - 100\%, \quad t = 2, n$$

RESULTS AND DISCUSSIONS

Analysis of tourist offer

The number of the tourist accommodation establishments by type of structure (hotels, hostels, motels, tourist villas, tourist cottages, bungalows, campings, tourist stops, preschools camps, tourist boarding houses and agro-tourism hostels) in Iași County in those 5 years analysed (2012-2016) (Table 1) fluctuated from year to year, the fewest were recorded in 2013, with a total of 72 structures and the most numerous were registered in 2015 with a total of 99 tourist accommodation structures. The most numerous tourist accommodation establishments were hotels, agro-tourist boarding houses and tourist boarding houses.

Table 1. Tourist accommodation structures with functions of tourist accommodation by type of structures in Iași County in the period 2012-2016

Types of structures tourist reception	2012	2013	2014	2015	2016
	UM: Number				
Total	78	72	81	99	96
Hotels	25	28	29	30	30
Motels	2	1	1	2	2
Hostels	5	5	5	4	2
Tourist cottages	1	1	1	1	1
Tourist villas	2	1	6	7	7
Bungalows	-	-	-	12	12
Tourist stops	2	1	2	1	1
Campinggrounds	-	-	1	1	1
Tourist guesthouses	28	24	24	28	24
Camps for pupils and preschools	1	1	1	1	1
Agrotourist hostels	12	10	11	12	15

Source: insse.ro

The touristic accommodation capacity in the Iași County in the period 2012-2016 (Table 2) varied in those 5 years analyzed between 3,530-4,284 places, the most significant accommodation capacity was in the hotels followed by tourist guesthouse and agrotourist hostels. The existent accommodation capacity based on types of tourist accommodation establishments from Iași County in the same period of 2012-2016 (Table 3) recorded year-on-year increases, which shows a good and growing economic situation for tourism in Iași County during the analyzed period.

In 2016, the total tourist accommodation capacity in the Iași County was about 1,531,262- 29.64% more compared to year of 2012 and a net use index of the accommodation capacity in operation about 35.49%.

Table 2. The existing tourist accommodation capacity by types of tourist accommodation structured in Iași County between 2012-2016

Types of structures tourist reception	2012	2013	2014	2015	2016
	UM: Capacity number				
Total	3,530	3,547	4,014	4,276	4,284
Hotels	2,290	2,493	2,790	2,946	2,964
Hostels	124	124	112	90	46
Motels	155	29	138	138	138
Tourist villas	72	76	108	114	118
Tourist cottages	21	21	27	27	27
Bungalows	:	:	:	24	24
Campinggrounds	:	:	18	18	18
Tourist stops	26	14	28	16	16
Camps for pupils and preschools	140	140	116	116	116
Tourist guesthouses	484	454	470	572	562
Agrotourist hostels	218	196	207	215	255

Source: insse.ro

Table 3. The existing tourist accommodation capacity based on types of tourist accommodation structures in Iași between 2012-2016

Types of structures tourist reception	2012	2013	2014	2015	2016
	UM: Capacity number per days				
Total	1,180,231	1,214,466	1,374,729	1,445,261	1,531,273
Hotels	781,065	820,487	970,503	1,039,668	1,092,858
Hostels	47,180	40,779	39,634	21,609	12,380
Motels	54,364	56,449	50,642	50,370	51,579
Tourist villas	27,792	24,064	38,572	40,508	41,536
Tourist cottages	7,686	7,675	8,769	9,855	9,882
Bungalows	:	:	:	4,416	6,576
Campinggrounds	1,064	1,708	854	1,472	496
Camps for pupils and preschools	37,864	34,300	28,412	21,312	38,428
Tourist guesthouses	159,953	160,092	168,625	184,301	185,038
Agrotourist hostels	63,263	68,912	68,718	71,750	92,500

Source: insse.ro

Regarding the comparative analysis of the accommodation units and the number of the existing places in the tourist accommodation establishments, in the interval 2012 - 2016 in Iași County (tab.4), we can observe that in 2016 the number of accommodation units increased with 23.07% compared to year 2012 and the number of the accommodation units increased in 2016, by 21.36% compared to 2012.

The qualitative analysis of the structure of the accommodation units based on types of structures for the two analyzed years, 2012 and 2016, shows that only the share of tourist villas in the total units increased from 2.56% in 2012 to 7.29% in 2016. The most significant increases into accommodation places were recorded in the hotels where the share of accommodation increased from 64.87% in 2012 to 69.18% in 2016.

Table 4. The comparative analysis of the number of accommodation units and the capacity number in the tourist accommodation establishments with tourist accommodation functions between 2012-2016 in Iași County

Type of unit	2016				2012			
	Nr. of units	%	Nr. of units	%	Nr. of units	%	Nr. of units	%
Total	96	100	4,284	100	78	100	3,530	100
Hotels	30	31.25	2964	69.18	25	32.05	2290	64.87
Hostels	2	2.08	46	1.07	5	6.41	124	3.51
Motels	2	2.08	138	3.22	2	2.56	155	4.39
Tourist villas	7	7.29	118	2.75	2	2.56	72	2.04
Tourist cottages	1	1.04	27	0.63	1	1.28	21	0.59
Bungalows	12	12.50	24	0.56	:	-	:	-
Campinggrounds	1	1.04	18	0.42	:	-	:	-
Tourist stops	1	1.04	16	0.37	2	2.56	26	0.74
Camps for pupils and preschools	1	1.04	116	2.70	1	1.28	140	3.96
Tourist guesthouses	25	26.04	562	13.12	27	34.61	484	13.71
Agrotourist hostels	14	14.58	255	5.25	13	16.66	218	6.17

Note: computing operation based of insse.ro info.

The analysis of tourist traffic

Regarding the structure of the tourist traffic in Iași County between 2012-2016 (Table 5), we can observe that the number of foreign tourists has a value of only 15.38% of the total arrivals in the country, the number of days per tourist for foreign tourists has also an average share of 18.37% of the total number of the overnight stays in the county, and the number of foreign and Romanian tourists increased during this period.

The average duration of the stay as an indicator showing the average time (days) of tourists' stay in the accommodation units, reflects the possibility to restrain the tourist in a specific area or region [10], decreased between 2012 and 2016 for Romanian tourists with 4.86% in 2016 compared to 2012, and for foreign tourists by 21.48% in 2016 compared to 2012.

Table 5. The structure of tourist traffic by type of tourists in Iași County

Years	Number of arrivals (number of tourists)			Number of overnight stays (nr. of days / tourist)			The average duration of stay (days)		
	T	RT	FT	T	RT	FT	T	RT	FT
2012	185,946	161,816	24,130	365,736	300,417	65,319	1.97	1.85	2.70
2013	183,305	158,699	24,606	356,667	294,837	61,830	1.94	1.86	2.51
2014	197,024	167,454	29,570	391,404	323,061	68,343	1.99	1.93	2.31
2015	246,470	204,565	41,905	454,161	369,124	85,037	1.84	1.80	2.03
2016	298,657	247,857	50,800	545,063	437,323	107,740	1.82	1.76	2.12

Note: T-tourists; RT-romanian tourists; FT-Foreign tourists

Note: computing operation based of insse.ro info

The net use index of tourist accommodation capacity in operation (Table 6) in Iași County between 2012-2016 that shows us the relation between the accommodation capacity in operation and its actual use by the tourists (overnight stays),

(in a determined period) recorded fluctuating values in Iași County in the analyzed years (2012-2016), in 2016 being recorded the highest value of 35.58%.

Table 6. The capacity and the activity of tourist accommodation in Iași County

Years	Accommodation capacity		Arrivals (thousands)	Overnight stays (thousands)	The net use index of tourist accommodation capacity in operation (%)
	Capacity number	In operation (thousands/days)			
2012	3,530	1,180,231	185,946	365,736	30.99
2013	3,547	1,214,466	183,305	356,667	29.37
2014	4,014	1,374,729	197,024	391,404	28.47
2015	4,276	1,445,261	246,470	454,161	31.42
2016	4,284	153,273	298,657	545,063	35.59

Note: computing operation based of insse.ro info

Based on the analysis of the tourist traffic in Iași County between 2012-2016 (Table 7) we can observe an increase in the dynamic index of the number of tourists, the total average dynamics index shows an increase of 1,126 times. This increase may be due to the economic strength of the area which implicitly determines an increasing interest of tourists for this area.

The average number of tourists (\bar{y}) was 222,280 thousand people.

The absolute average change in the number of tourists (\bar{D}) recorded a value of 28.18 thousand people.

The average dynamic index for the number of tourists (\bar{I}) was about 1.126 or 112.6%.

The average dynamic rhythm for the number of tourists (\bar{R}) was about 12.6%.

Table 7. The analysis of the tourist traffic in the period 2012-2016 in the Iași County

Years	Nr. of tourists (thousand people)	The absolute changes		Indice de dinamică %		The average dynamic rhythm %	
		$\Delta_{t/1}$	$\Delta_{t/t-1}$	$I_{t/1}$	$I_{t/t-1}$	$R_{t/1}$	$R_{t/t-1}$
2012	185,946	-	-	-	-	-	-
2013	183,305	-2,641	-2,641	98.58	98.58	-1.42	-1.42
2014	197,024	11,078	13,078	105.96	107.48	5.96	7.48
2015	246,470	60,524	49,446	132.55	125.10	32.55	25.10
2016	298,657	112,711	52,187	160.61	121.17	60.61	21.17

Note: computing operation based of insse.ro info

CONCLUSIONS

Regarding the analysis of the tourist offer, the number of tourist accommodation establishments with touristic accommodation functions by type of structures in Iași County during the analyzed 5 years (2012-2016) is ranging from 72 to 99 tourist accommodation structures, the most numerous such as hotels, touristic and agrotouristic hostels.

The existing tourist accommodation capacity by types of tourist accommodation structures in Iași County (2012-2016) increased during those 5 analyzed years and varied between 3,530 and 4,284 places, the most significant accommodation capacity being also found in hotels, touristic and agrotouristic hostels.

The existing accommodation capacity in function based on different types of tourist accommodation establishments in Iași County in the same period (2012-2016) shows year-on year increases, recording an increase of 29.74% in 2016 compared to the year 2012

which shows us a good economic situation for tourism in Iași County during the analysed period.

The analysis of the tourist traffic in the Iași County between years 2012-2016 indicates that the value of foreign tourists and the number that indicates the days per tourists for foreign tourists have a very small share in the number of arrivals and overnight stays in the country, and the evolution of the number for foreign and Romanian tourists increased during the period. The average length of stay decreased during 2012 - 2016 for Romanian tourists, with a decrease in the average length of stay of 4.86% in 2016 as compared to 2012 and for foreign tourists by 21.48% in 2016 compared to 2012.

The net use index of tourist accommodation capacity in operation recorded fluctuating values in those 5 years analyzed (2012-2016), in 2016 recording the highest value of 35.59%.

Based on the analysis of the tourist traffic we can observe an increase of the dynamic index for the number of tourists, the total average dynamics index shows an increase of about 1.126 times. The average number of tourists in Iași County between 2012-2016 was 222,280, with an average increase of 28.18 thousand persons. The average dynamic index indicates a relative increase of 112.6% and an average rate of 12.6%

REFERENCES

- [1] Bălăcescu Aniela, Zaharia M., 2012, Statistical analysis of the touristic traffic and touristic accommodation in the period 2000-2009 in Brașov county, *Analele Universității "Constantin Brâncuși" din Târgu Jiu, Seria Litere și Științe Sociale*, Nr. 3/2012: 19-26.
- [2] Ghereș Marinela, 2006, Agro-tourism (Agroturism, in Romanian), Editura Risoprint, Cluj-Napoca, 115-120
- [3] Merce, E., Merce, C.C., 2009, Statistics – consecrated paradigms and completing paradigms (Statistică – paradigme consacrate și paradigme întregitoare, in Romanian), Editura Academic Pres, Cluj-Napoca, 120-130.
- [4] Neacșu, N., Băltărețu Andreea, Neacșu Monica, 2012, Tourism economy (Economia Turismului, in Romanian), Editura ProUniversitaria, București, 15-16.
- [5] Neacșu, N., Băltărețu Andreea, Neacșu Monica, Drăghilă Marcela, 2016, Resources and tourist destinations in Romania (Resurse și destinații turistice în România), Editura Universitară, București, 93-103.
- [6] Cosmescu, I., 1999, Service economy (Economia serviciilor in Romanian), Editura Universității Lucian Blaga, Sibiu, 34-42.
- [7] Postelnicu, G., 2006, Introduction in tourism theory and practice (Introducere în teoria și practica turismului, in Romanian), Editura Dacia, Cluj-Napoca, 175-180.
- [8] Snak, O., Baron, P., Neacșu, N., 2001, Tourism economy (Economia turismului, in Romanian), Editura Expert, București, 420-430.
- [9] Minciu Rodica, 2004, Tourism economy (Economia turismului, in Romanian), Editura Uranus, București, 73-98.
- [10] Turcu Daniela, Weisz Janeta, 2008, Tourism economy (Economia turismului, in Romanian); Editura Eurostampa, Timișoara, 9-11.