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## The tourism seasonality in Romania

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## THE TOURISM SEASONALITY IN ROMANIA

NECULA DIANA<sup>1</sup>, DRĂGHICI MANEA<sup>2</sup>, NECULA RALUCA<sup>3</sup>

**Abstract:** *One of the problems which establishments managers must deal with is the seasonality from tourism. The seasonality causes may be natural (the seasons succession, climatic conditions), the variety and the cultural values attractiveness, the frequency of events (fairs, festivals, etc.) and economic and organisational (structure of the school year and university year, holidays, increasing the length of leisure time and its redistribution, habits, etc.). In this paper we pursued the seasonality calculation at the country level by calculating the coefficient of the seasonality of accommodation and overnight stays, resulting, for the period 2010-2013, for a total tourist structures an obvious seasonality. The magnitude of seasonal variation and their frequency of manifestation has consequences on the development of tourism and its efficiency, as well as other sectors of the economy, branches that tourism develops in interdependence.*

**Keywords:** *tourism seasonality, accommodation capacity, overnight stays*

### INTRODUCTION

In touristic activity, the seasonality is reflected on the one hand, in a significant underspending of the technical-material base and workforce, negatively influencing the cost of tourist services and their quality, the recovery of investments, profitability, and on the other hand the low level of serving the needs of consumers in this way affecting the development of the tourist circulation. Tourism seasonality presents a series of particularities compared to other sectors of the economy, due to the high dependence of tourist circulation toward natural conditions, the tourist services nonstock character and the rigidity of the supply.

This must be regarded as an objective reality which marks profoundly the entire activity of the agents involved in tourism. It is found at all levels of decision-making and interests all the suppliers of tourist services.

Based on these factors which determine the contents of the tourist market, we can say that it is characterized by a number of features, including:

- is a market with specific purpose, tourists aiming at obtaining some special satisfaction, representative for this sector of activity;
- It is a fragmented market, a result of confrontation between highly heterogeneous offer and demand determined by the subjective preferences of tourism consumers;
- it is of a special complexity in time and space, because the tourist offer is seen initially in a subjective manner, as an image constructed from information circulating between the potential and actual tourists, becoming objective only in the moment of actual consumption;
- is a market on which acts more decision-makers, the purchase act of a touristic product may be influenced by a number of participants;
- present a higher risk degree, the bidders uncertainties being more numerous than in the case of material goods market.
- presents a seasonality, being characteristic for the other forms of tourism.

### MATERIAL AND METHOD

The accommodation capacity seasonality analysis is carried out mainly with the help of the seasonality coefficient whose formula is (simple arithmetic mean method):

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$$K_s = \frac{\bar{CA}_t}{CA_T}, \text{ where: } \bar{CA}_t = \text{accommodation, overnight stays as monthly or quarterly}$$

averages and

$\bar{CA}_T$  = the overall average monthly or quarterly of accommodation capacity or overnight stays

The higher the value of the coefficient of seasonality tends to 1 the seasonality is smaller, while the removal from 1 reveals a high seasonality.

The seasonal variation calculation consists in determining the part of the annual total that is owed to each of the twelve months of the year. The calculation is done for a number of years, for compensation for some accidental monthly variations. In this series of statistics must be removed the trend, and what remains represents the seasonal variation, which is expressed as an index or the seasonality coefficient.

The link between the tourist offer (accommodation) and tourist consumption (the number of overnight stays) was done by calculating the correlation ratio that expresses the intensity of links between the two phenomena analyzed) using the formula:

$$r = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{N \sum x^2 - (\sum x)^2} * \sqrt{N \sum y^2 - (\sum y)^2}}$$

where **x** represents the capacity of accommodation and **y** the overnight stays.

Statistical significance of the correlation report was done with Fisher test.

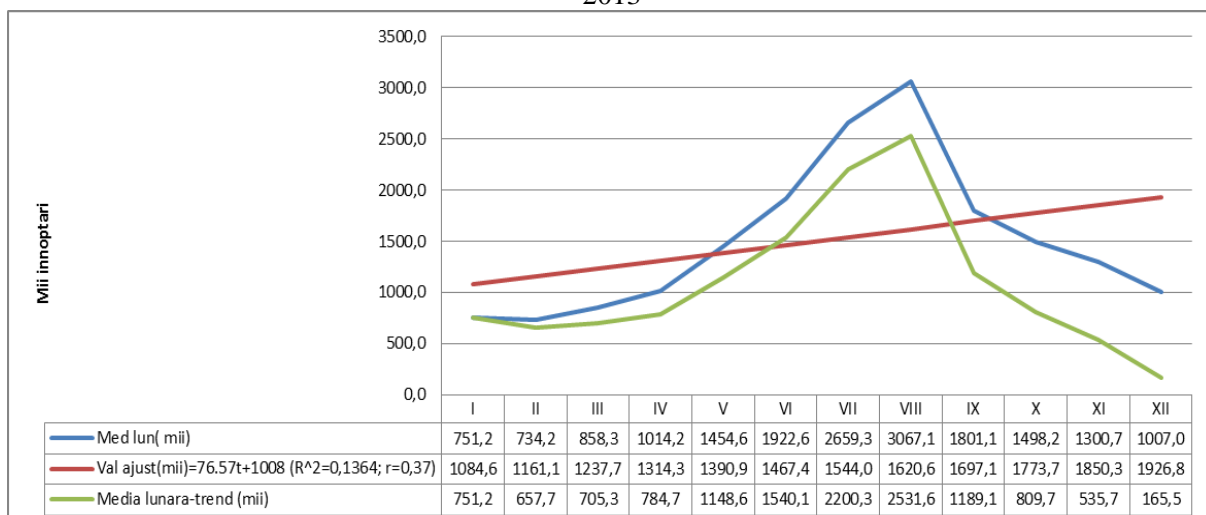
## RESULTS AND DISCUSSION

The seasonality coefficient was calculated at country level for the offer of tourist accommodation, through the monthly accommodation capacity, and for the tourist product consumption through monthly overnight stays. The seasonality coefficient is given by the activity share of the month in which it was obtained the highest number of overnight stays in the number of overnight stays on the entire range (calendar year). If the coefficient is 0.833 % indicates a uniformity in the activity of economic units, and if it is greater than a certain 0.833% denotes some seasonality which emphasizes with the increase of the coefficient of seasonality.

At the country-level the seasonality of seasonal tourist accommodation capacity and overnight stays tourist structures on the total for the period 2010-2013 is obvious.

The accommodation capacity coefficient is during July and August of 1.45 de 1.40, when we have the maximum of tourism, but that can be extended from May to September when the figure is higher than 1.

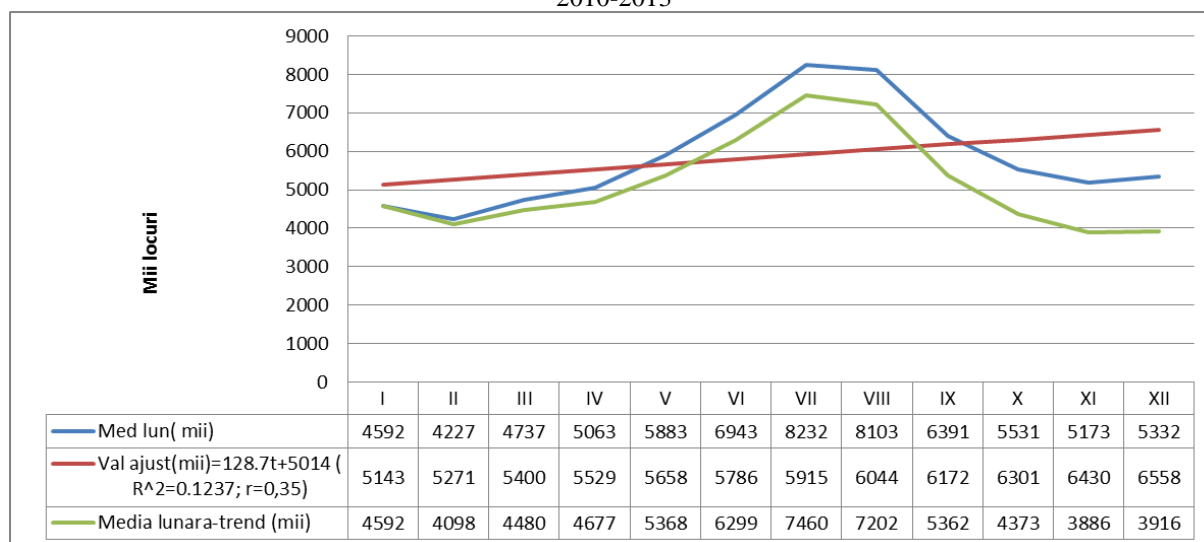
Fig. 1. The overnights monthly trend, on total tourist structures, at the country level, for the period 2010-2013



Processed by: \* INS, 2014 Database TOURISM-TEMPO, h <https://statistici.insse.ro/shop/?page=tempo2&lang=ro&context>

Adjustments in the monthly trend in overnight stays were made using a linear regression equations, where resulted the adjusted value(thousand overnights) at the level of country =  $76.57t+1008$  ( $R^2=0.1364$ ;  $r=0.37$ )

Fig. 2. The monthly trend for accommodation capacity, on total tourist structures, at the country level, for the period 2010-2013



Processed by: \* INS, 2014 Database TOURISM-TEMPO, h <https://statistici.insse.ro/shop/?page=tempo2&lang=ro&context>

Accommodation capacity trend adjustment was done using a linear regression equations, where resulted the adjusted value (thousands persons) of total accommodation capacity =  $128.7 t + 5014$  ( $R^2 = 0.1237$ ;  $r = 0.35$ )

Table 1. Differences between seasonality coefficients of supply capacity and total tourist overnight stays at the country level, for the period 2010-2013

Coef of seasonality	Month												
	MU	I	(II)	III	IV	V	VI	VII	VIII	IX	X	XI	(XII)
Accommodation capacity	No	0.89	0.80	0.87	0.91	1.04	1.22	1.45	1.40	1.04	0.85	0.76	0.76
Overnight stays	No	.69	0.61	0.65	0.72	1.06	1.42	2.03	2.33	1.10	0.75	0.49	0.15
Deviations	No	-0.20	-0.19 per	-0.22	-0.19	0.01	0.19	0.58	0.93	0.05	-0.10	-0.26	-0.61
	%	77.5	76.1	74.6	115.9	101.4	115.9	139.8	166.6	105.1	87.8	65.3	20.0

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Fig. 3. The monthly seasonality coefficients of accommodation capacity and overnight stays, at the country level for the period 2010-2013

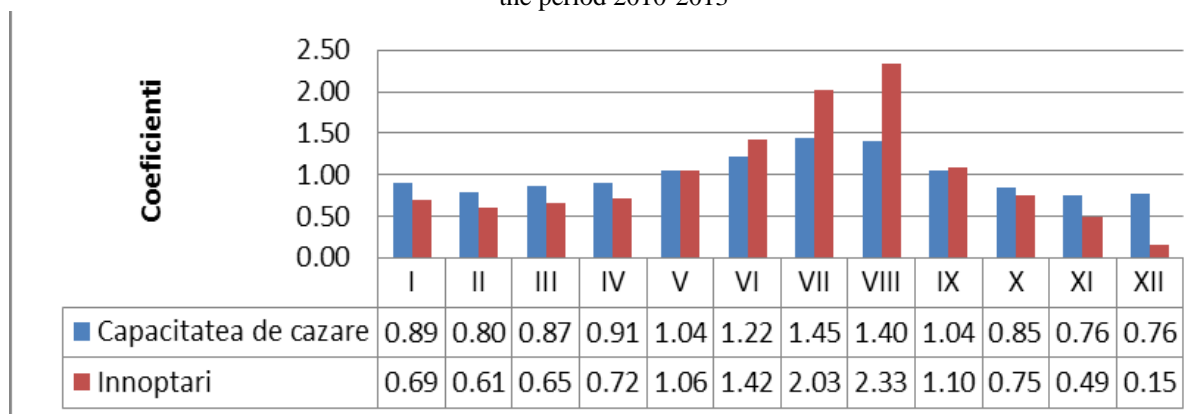
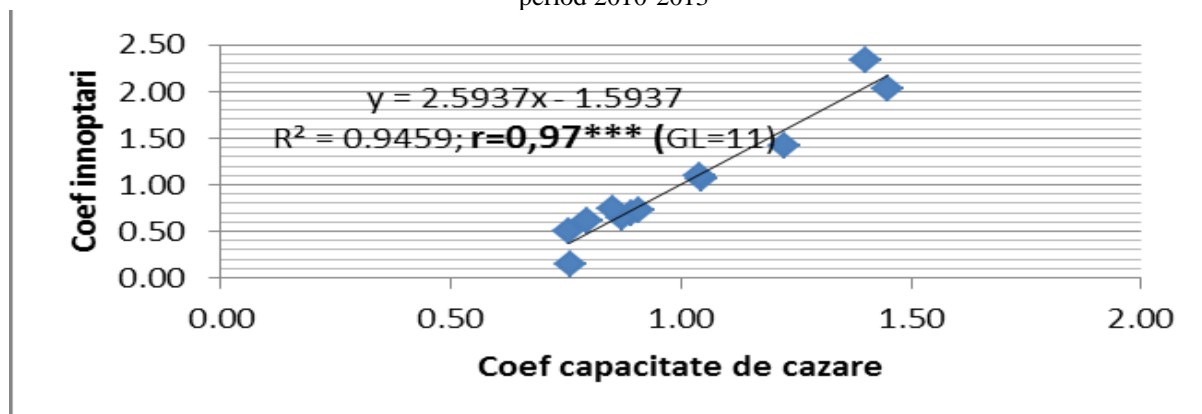


Fig. 4. Correlation between the total accommodation capacity and the total overnight stays at the country level, for the period 2010-2013



The correlation between the total accommodation capacity and total overnights at country level for the period 2010-2013, is obvious through  $r = 0.97^{***}$  ( $GL = 11$ ), which is very significant.

It is interesting that by analysing the number of overnight stays at the country level is found that also between May and September seasonality coefficient is more than 1, with a maximum in July and August of 2.03 and 2.33.

## CONCLUSIONS

1. The study undertaken shows a obvious seasonality for the period 2010-2013. Between the two sets of coefficients of monthly seasonality, there is a very strong correlation, that is, a correlation coefficient of  $0.97^{***}$ , proving a good organization of the activities.
2. Measures to be taken to minimize the effects of seasonality are:
  - adjustment of supply to market demands and providing facilities for rates and attractive prices for tourist services in periods of low season.
  - Attracting tourists in low season periods by the intensification of activities for enhancing attractiveness of sightseeing.
  - Intensification of marketing, launching and improving advertising actions for promotion of tourism in the tourist extra season.
  - A very important measure is the diversification of touristic offer by providing combined stays with the use of other elements of attraction in nearby areas or other areas of interest.
  - the formulation of the company's marketing policy through extensive and sustained efforts to adapt the touristic offer to the specific needs of the tourists.

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