

## STRUCTURAL CHANGES IN TOURISTIC TRAFFIC EVOLUTION OF NAVIGATION IN ROMANIA

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**Abstract:** Navigation tourism is a form of tourism with impact on the sustainable development of tourism. Highlighting connections marine tourism market mechanisms is based on knowledge of the relations between components. In this context, an important role is the analysis of the structural evolution of tourist traffic navigation, as part of marine tourism market demand. This paper analyzes the developments and structural changes, by category of comfort, the number of tourists arrivals and overnight stays recorded for the accommodation on inland waterway and sea in Romania. The conclusions highlight the results obtained following the application of statistical and econometric methods appropriate official statistics on sustainable tourism development.

**Key-words:** accommodation inland waterway and maritime, touristic traffic, tourists' arrivals, overnight stays, systemic model of recovery of naval tourism potential.

### 1. NAVIGATION TOURISM IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

Tourism navigation takes place under the impact of the touristic demand, exerted by the tourists who travel to different tourist destinations, through the racing line, individual leisure craft trips or cruises, respectively, mini cruises, taking into account sustainable development issues. This tour is unique in his way of going and interdependence with the environment, with its values.

Naval tourism products must be designed and marketed so that on the one hand to meet better the needs of tourists, on the other hand, environmental, cultural and social values to be the least affected by tourism activities. Reducing the negative effects arising from such activities should be seen as an integral part of the sustainable development of tourism navigation.

Globalization and sustainable development worldwide has led to rising standards of quality naval supply and tourism demand, which would require a focus on Romania attention to the development of this type of tourism. As part of the tourism market, the demand for the naval tourist circulation is characterized by two key indicators: the number of tourist arrivals and overnight stays in accommodation on ships in Romania must take place under the impact of sustainable development.

Naval market potential available, can be an advantage for those who wish to activate and develop

naval tourism, mainly that of the cruise. Details of tonnage ships that can move, are significant given the fact that tourist ships that would be included in navigable waterway tourism can be constructed so that the supply to be as diverse and to satisfy, increasingly and sophisticated requirements of potential tourists.

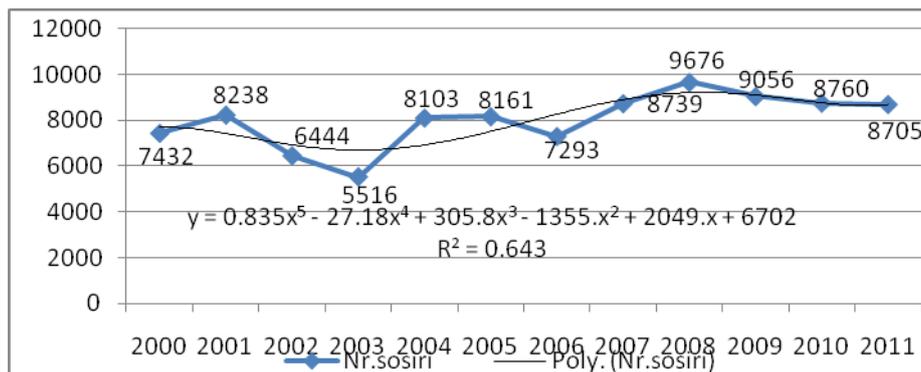
Quality and competitiveness of the naval touristic products contribute to the development and maintenance of a sustainable naval tourism.

### 2. STRUCTURAL CHANGE IN TOURISTIC TRAFFIC OF NAVIGATION IN ROMANIA

The naval touristic product is formed together with the naval touristic supply and is finalized during the development of naval tourism activities. The motivations underlying naval tourist trips customize the length of stay, which must be by at least one overnight accommodation in this environment.

Both the number of tourists arriving and their number of overnight stays in touristic accommodation shipping are the main indicators that may reflect the structural changes occurring in the evolution of naval tourist traffic.

Influence of the change processes of socio-economic during 2000-2011, is well evidenced by the evolution of the value of tourists arrivals in accommodation on the fluvial or maritime vessels from Romania (Figure 1).



**Figure 1. Evolution of the number of tourist arrivals**

Trend tourist arrivals in accommodation of inland waterway and maritime (TA) in Romania during 2000-2011 registered a polynomial trend, reflected by the function:

$$TA = 0,8359t^5 - 27,187t^4 + 305,8t^3 - 1355,8t^2 + 2049,5t - 6702 \quad (1)$$

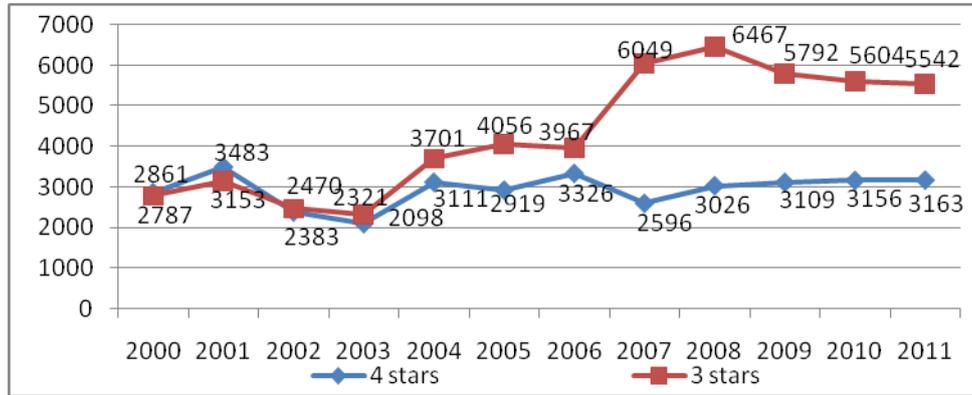
Positive and negative fluctuating values of the parameters indicate variations in increase or decrease that tourist arrival recorded in units of inland waterway and maritime. Overall average TA is growing only 1.45% per year, which represents an average increase about 116 tourists arrive annually.

A deeper analysis involves comparative study of tourist arrivals in naval units, by type of comfort.

Statistics taken from the official web site of the NIS - TEMPO ONE-LINE indicates fluctuations of this indicator, on the categories of comfort, in the period 2000-2011, specifying that in 2006, 2010 and 2011 there were

no values on number of tourists arriving in accommodation 2 star and 1 star. In 2008 are missing the values for 1-star and 2-star in 2009.

Under these conditions, in Figure 2 is presented the evolution comparative arrivals of tourists on ships 4 and 3 star service. Between them there was a strong competition for the entire period 2000-2011.

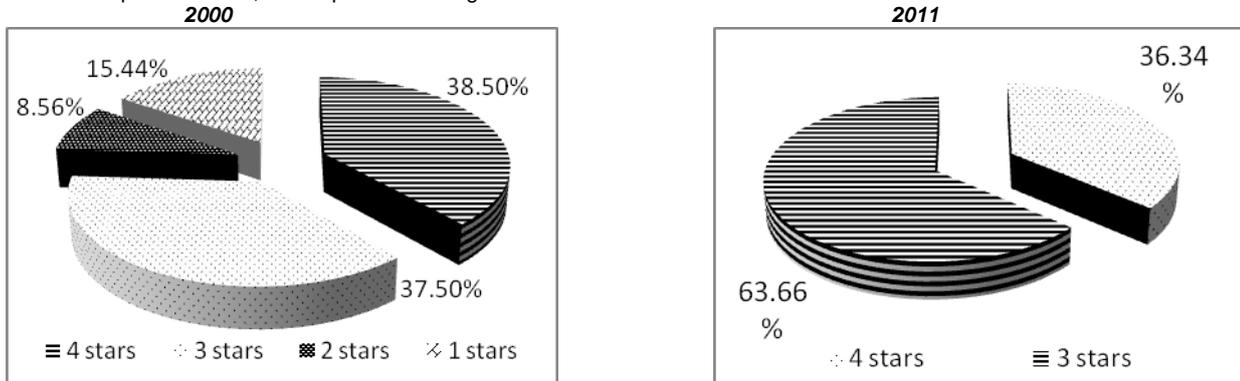


**Figure 2. The evolution of the number of tourists arrivals in naval accommodation spaces by 3 and 4 stars**

During 2000 - 2011 the number of tourists arriving in naval accommodation spaces with 4 star services fluctuated with an average increase of 28 tourists annually, that a rate of increase of 0.92% per annum. The situation for 3-star accommodation spaces is better so that the rhythm recorded was higher than that of 4-star ships being at the level of 6.45%, which in absolute value is an average increase with about 251 tourists annually.

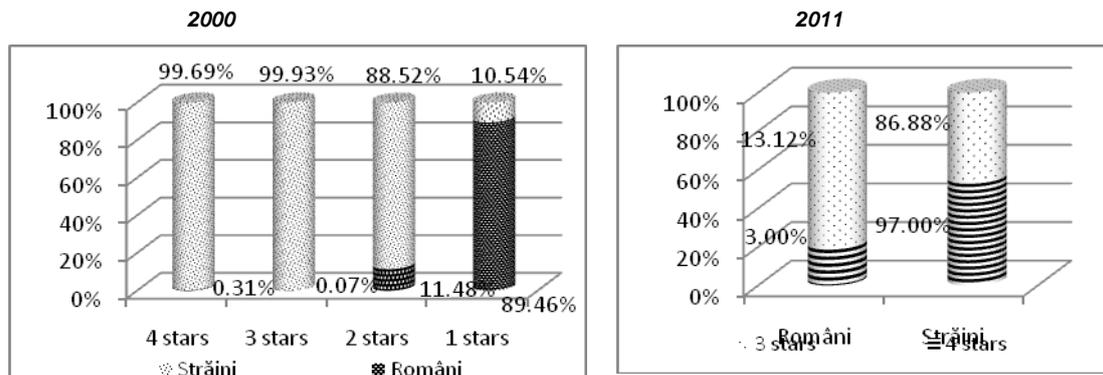
In total tourist arrivals in naval accommodation spaces in the first two places are places tourists preferred category 4 star and 3 stars both in 2000 and in 2011. Thus in 2000 were 38,50% of the tourists preferred 4 star accommodation on ships, respectively 37,50% of the total number of tourists staying on the 3 star ships, against of accommodation from 2 star naval (8, 56%) and from a star (15,44%). In 2011 the competition was disputed only between the first two categories, the rule being owned by 4-star accommodation with 63.66% against 36.34% corresponding to 3 stars. These findings show the increase of the quality of the requirements of tourists when choosing to buy this type of tourism product, prefer a high quality.

Since the 2006, 2010 and 2011 there were no values for the number of tourists arriving in accommodation spaces 2 stars and 1 star to look at the comparative structural tourist arrivals in naval accommodation spaces, by type of comfort in 2011 compared to 2000, as it is presented in figure 3.



**Figure 3. Comparative structure of tourist arrivals in the naval accommodation spaces by categories of comfort in 2000 and 2011**

Important conclusions can be drawn from the analysis of the structural evolution of tourist arrivals by country of residence (Romanian and foreign). These trends are shown in Figure 4.

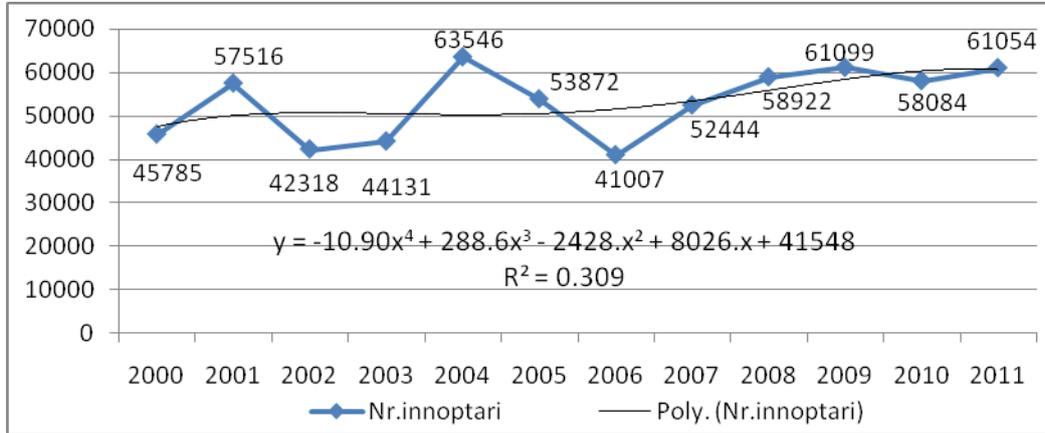


**Figure 4. Comparative structure of tourist arrivals in the naval accommodation spaces by categories of comfort and by residence in 2000 and 2011**

Graphical highlights, overall, a significant percentage of the number of foreign tourists arriving in naval accommodation spaces. In 2000 the number of foreign tourists arriving in accommodation spaces of 4, 3 and 2 stars is high compared to that of the Romanians having the total arrivals, a significant percentage of between 99.93% and 88.2%. Simultaneously, the difficult financial situation of Romanians expressed by reduced the

purchasing power, the knowledge in this field and their requirements, have led to choose accommodation 1 star ships, Romanians percentage being 89.46% of the total arrivals, compared to foreigners who account for only 10,54%.

The same trend fluctuations, was manifested and for the second indicator of naval tourist traffic: number of overnight stays (Figure 5).



**Figure 5. Evolution of the number of overnight stays**

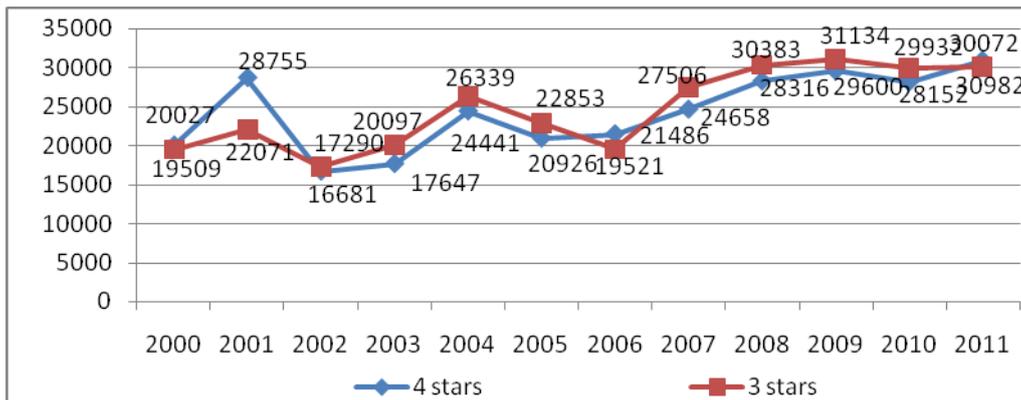
Overall, there was a slight average increase of approximately 1388 annual overnight stays, representing a relative average increase of 26,51%, the year 2004 being owner maximum value of 63,546 nights.

An expression of the trend in the number of overnight stays (OS) in accommodation spaces of inland waterway and maritime in Romania during 2000-2011 is given by the function:

$$OS = -10,907t^4 + 288,64t^3 - 2428,8t^2 + 8026,2t - 41548 \quad (2)$$

Regarding the comparative evolution of the number of overnight stays on ships of 4 and 3 stars (Figure 6), as showed from the analysis of the number of tourist arrivals, there is a strong competition between them for the whole period 2000-2011.

The number of overnight stays in naval accommodation spaces by 4 stars, from 2000 to 2011, increased fluctuating with an average of 913 nights per year, with the rate of 3.76% per annum. For 3-star accommodation spaces situation is slightly better, so that the rate recorded was higher than that of 4-star ships, standing at the level of 4,29%, which represents an increase in absolute annual average of about 1043 nights.

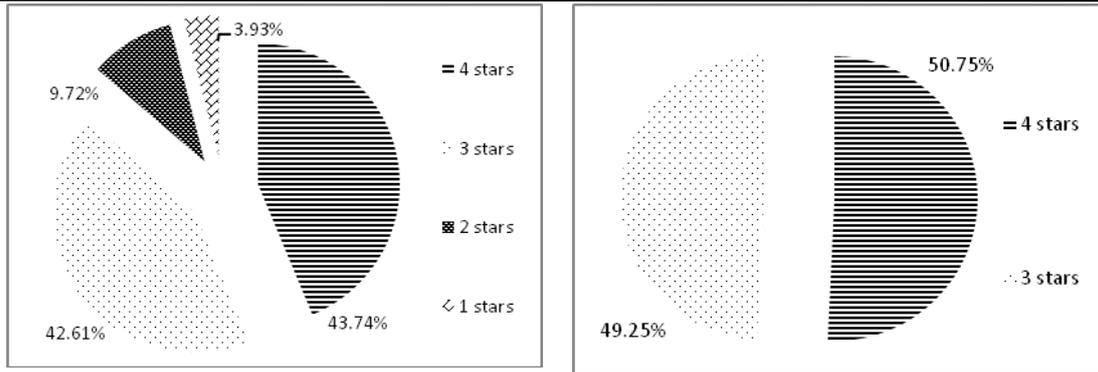


**Figure 6. Evolution of the number of overnight stays on ships of 4 and 3 stars**

A more detailed analysis of this indicator, on the category of comfort is shown in Figure 8. As you can see, it manifested a similar trend like the naval tourist arrivals in naval accommodation spaces.

2000

2011



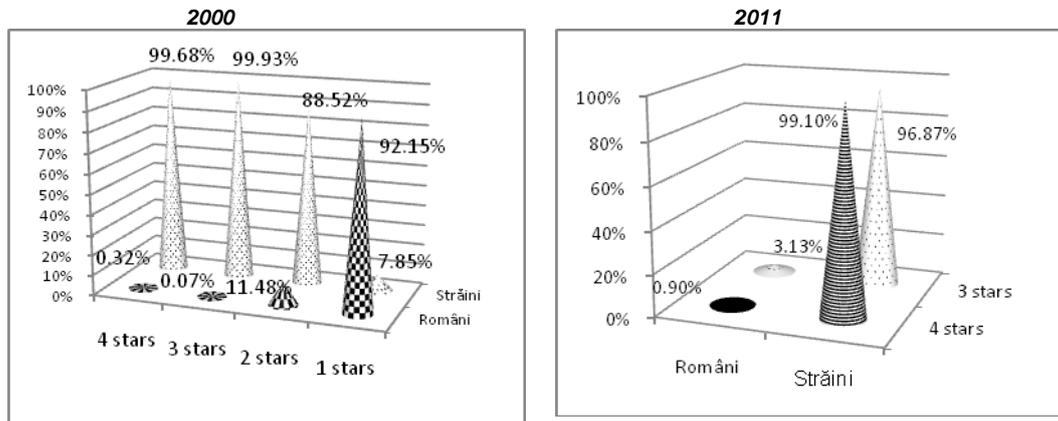
**Figure 7 Comparative structure of overnight stays in naval accommodation spaces by categories of comfort**

The first two places are occupied also by tourists who preferred to spend stays on ship of categories 3 stars and 4 stars, both in 2000 and in 2011. In 2000, 43.74% of all overnight stays preferred the 4 stars accommodation, respectively 42.61% on the 3 stars ships. Under these conditions, the overnight stays in accommodation spaces on the naval of 2 stars have returned to 9.72% and in the accommodation spaces of one star, only 3.93%.

As the number of tourist arrivals in 2011 the competition was disputed only between the first two

categories, the rule being held throughout the 4-star accommodation on ships, with 50.75% of total overnight stays compared to 49.25% corresponding to the 3 stars. The difference is quite small, only 1.5 percentage points, indicating a relatively low differential preference.

Finally, changes in the structure of overnight stays by country of residence (Romanian and foreign), shown in Figure 9, highlighted on the whole, a significant percentage of the number of foreign tourists.



**Figure 8. Changes in the structure of overnight stays by country of residence and comfort category**

The number of overnight staying in accommodation spaces of 4, 3 and 2 star of the foreign tourists in 2000 is also higher than that of the Romanians (as in tourist arrivals case), registering a significant

percentage between 99.93% and 88.52%. If the overnight staying of foreign tourists on ships of one star is 7.85%, for Romanian tourists is 92.15% of all overnight stays.

### 3. CONCLUSIONS

The overall conclusion of the analysis performed is that from 2000 - 2011, changes in the evolution of the absolute values of the indicators naval tourist traffic is characterized by quite modest fluctuations around an upward trend. Relatively low level of development of this type of tourism did not have significant implications for Environmental, cultural and social values, falling within the constraints of sustainable development.

Diversification of the naval touristic products and the intensification of these activities should consider establishing an appropriate framework for the design and implementation of a systemic model of exploitation of naval tourism potential for sustainable development. It must have the main objective the reducing the negative effects arising from such activities should be seen as an integral part of the sustainable development of tourism navigation by enhancing the process of educating of tourists in the spirit of this type of development.

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