ANALYSIS OF TOURIST ARRIVALS IN TOURIST AREAS, QUARTERLY AND TOTAL YEAR IN 2007-2013

Cristina BURGHELEA

Hyperion University, 169, Calea Calarasi, Zip Cod 030615, Bucharest, Romania, E-mail: crystachy@yahoo.com

Corresponding author: crystachy@yahoo.com

Abstract

Actuality of the theme reside that research is done in a new and necessary light of concept of sustainable development and also offers the possibility of using the forms and methods of development. Conceptuality sustainable development offers insight into the shape analysis, and the method to develop economically and socially, whose fundamental element can be created balance between social and economic systems and the factors that make up natural capital. The presence of sustainable development in Romanian economy means healthy growth based on the principles of fulfillment of human life, but also a concern of putting a service to harmonize environmental factors sustainable factors. Analysis of the number of tourist arrivals in the period 2007-2013 in tourist areas aims to identify prospects for growth in the number of arrivals of tourists in Romania by applying a methodology based on econometric models rigors requirements that ensure the formulation of relevant conclusions on the extent of flow trends foreign tourists.

Key words: economic growth, econometric models, sustainable tourism, tourist areas

INTRODUCTION

At first, the idea of sustainability was conceived as an alternative to environmental pollution [11] and excessive consumption of resources, but now sustainable development does more than keep the quality of life in all its forms.

Highlighting globalization and negative externalities [12] of underlying economic and social life in the past century, led the gain scientific and strategic policy concerns establishment relating to the and implementation of a new model for allocating scarce resources, based on sustainable development, the whose values are based on the principle of equal opportunities and paraded generations coexist in time and space inevitably our microcosm [15]. A sustainable development is a healthy development [1], a positive evolution of economic and social life in respect to the health of the common living today and always. We can say that the development effective of healthy development, the road incorporating values, criteria and indicators arising from the requirements of human health. the environment, communities, organizations and

institutions, much more complex and prestigious common living our whole life [14].

For Romania this perspective opens the way for new approaches on the rise of health tourism 'when we have to rely on postaccession strategy for the period 2015-2024 in accordance with the requirements of the new unified European economy, as they result from the Europe 2020 Strategy.

MATERIALS AND METHODS

Statistical support for information and analysis of the dynamics of the number of tourist arrivals is divided into six tourist areas namely: spas; seaside area; resorts in the mountains; Danube Delta; Bucharest and town's county residence and other places and tourist routes.

Analysis of the number of tourist arrivals in the period 2007-2013 in the tourist areas is based on data provided by the National Statistics Institute.

Processing of these data was performed using the following methods: the relative sizes of structure adjustment and dynamic series of equations expressing the trend of the number

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of arrivals and plotting the real and estimated data [5].

Structure arrivals (number of tourists) in touristic areas in 2007-2013 are presented in Table. 1.

| Touristic | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----------------------------|----------|----------|----------|----------|----------|----------|----------|
| areas | | | | | | | |
| | % | % | % | % | % | % | % |
| | | | | | | | |
| Spas | 10.64370 | 10.21629 | 10.41728 | 9.388333 | 9.804507 | 9.063272 | 8.550584 |
| Seaside | 11.41954 | 11.68496 | 12.83730 | 11.63839 | 10.50899 | 10.50776 | 9.203066 |
| resorts | | | | | | | |
| Mountain | 14.31085 | 14.01298 | 13.53077 | 13.40003 | 13.61438 | 14.50946 | 15.57599 |
| resorts | | | | | | | |
| Danube | 1.058058 | 1.348573 | 1.147654 | 1.133394 | 1.164845 | 1.150094 | 1.021464 |
| Delta | | | | | | | |
| Bucharest | | | | | | | |
| and town's | | | | | | | |
| county | 47.48565 | 47.19607 | 46.96397 | 49.81378 | 50.52462 | 49.82373 | 50.27648 |
| residence | | | | | | | |
| Other | | | | | | | |
| places and | 15 08219 | 15 54113 | 15 10302 | 14.62608 | 14 38266 | 14 94568 | 15 37241 |
| tourist | 15.00217 | 15.54115 | 15.10502 | 14.02000 | 14.50200 | 14.74500 | 15.57241 |
| routes | | | | | | | |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Table 1. Arrivals structure in touristic areas, 2007-2013

Source: calculus on data from www.insse.ro

Tourist Area "Bucharest and towns county residence" attracts the largest number of tourists, between 47.0% and 50.5% of total arrivals. Thus, it proves that tourists are attracted to urban areas as a priority for both sightseeing and visiting on business or for to exercise their professional obligations.

Analyzing the tenured "Other places and tourist routes" found that tourism is the second preferably with a ratio of between 14.4% and 15.5% of total arrivals. It is obvious that a possible motivation of the tourist flow is similar [4] considered that tourist area "Bucharest and towns county residence."

"The resorts in the mountains" also attract a large proportion of tourists quantified at a magnitude of between 13.5% and 15.6% of total arrivals. Recognized beauty of the natural environment and especially the mountain area [8] of our country has a distinct tourist attraction. Option for mountain is justified by curative role of natural wealth (mineral water, pits, geothermal, saline, unpolluted atmosphere and ozone-rich air), multiple opportunities to practice sports in all seasons.

The spas and resorts in the coastal zone are definitely dependent on the seasonal factor, in these conditions tourist preferably has a smaller proportion assembly tourist flow, which is positioned between 8.5% and 12.8% with a slight advantage for the seaside.



Fig. 1. Arrival structure on tourist area in 2007 and 2013

Note: the six areas are represented in the figure by numbers 1 to 6.

Source: author calculus

It is noted that (see figure 1) seaside resorts are positioned at a level with an obvious decrease in the proportion of 11.41954% in 2007 to 9.203066% in 2013 of total tourist arrivals at national and resorts spa centers have also diminished the relative representation from 10.64370% to 8.550584%.



Fig. 2. Graphical representation of tourist arrival structure in 2007-2013 Source: author calculus

Interestingly, there is a significant structural shift in favor of area of residence Bucharest and county towns [16].

Figure 2 provides a conclusive picture on the preference of tourists for the area of Bucharest and towns county residence. Tourist areas in

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the mountain resorts and other places and tourist routes attract a similar number of tourists but much lower than the previous reference. While spas and resorts areas of coastal attract tourist flow that can be considered comparable but at a more reduced compared to the other three tourist areas to which I referred. It is obvious that the Danube Delta through small number of tourists who attends, deserve attention to implementing a policy for zonal development and protection of national heritage areas representative.

The statistics in the table 2, shows the number of tourists (arrivals) for each year of the period analyzed for tourist areas and identify underlying general trend of amending them.

Table 2. Total number of arrivals in touristic areas in 2007-2013

| Touristic | 1. Spas | 2. | 3. | 4. | 5. | 6. Other | Total |
|-----------|---------|---------|----------|--------|-----------|----------|---------|
| areas | | Seaside | Mountain | Danube | Bucharest | places | |
| | | resorts | resorts | Delta | and town | and | |
| Year | | | | | county | tourist | |
| | | | | | residence | routes | |
| 2007 | 742071 | 796162 | 997742 | 73767 | 3310664 | 1051519 | 6971925 |
| 2008 | 727942 | 832589 | 998468 | 96090 | 3362865 | 1107353 | 7125307 |
| 2009 | 639739 | 788356 | 830943 | 70479 | 2884121 | 927497 | 6141135 |
| 2010 | 566699 | 702517 | 808853 | 68414 | 3006862 | 882860 | 6036205 |
| 2011 | 686550 | 735881 | 953332 | 81567 | 3537932 | 1007130 | 7002392 |
| 2012 | 693646 | 804198 | 1110463 | 88021 | 3813196 | 1143849 | 7653373 |
| 2013 | 677081 | 728748 | 1233390 | 80885 | 3981161 | 1217270 | 7918535 |

Source: calculus on data from www.insse.ro

The graphical representation of the total number of arrivals (Figure 3) allows to specify that the dynamics of arrivals shows an evolution that on a general fund ascending evidence of decreased tourism flow in 2009 and 2010, and then, in 2011, 2012 and 2013, to register significant increases. It is obvious that the graph illustrates unequivocally situation-specific conjuncture in 2009 and 2010 tourism activity represented by the total number of arrivals that supports negative influence of the global financial and economic crisis.

The general trend chart that displays the total number of arrivals developments in the period 2007-2013 may be expressed mathematically by a linear trend equation. The definition of the equation is obtained by using the method of least squares and has the following expression [9]:

y = 6298807.571 + 169900.6786 t,

Where y represents estimates of the number of arrivals as linear trend and t is the time variable for granting conventional sizes: 1, 2,

3, 4, 5, 6, 7 related to the 7 years of the program.

The mathematical equation that shapes the general linear trend in the number of arrivals, the estimated size of the parameter b = 169900.6786 allows us to mention that during the 7 years of the period under review recorded an average increase from one year to another, 169900.7 tourists [2].



Fig. 3. Graphical representation of total arrival dynamics (2007-2013)

Source: author calculus

RESULTS AND DISCUSSIONS

Analysis of trend in the number of arrivals "spa resorts"

Statistical data in Table 3 shows the dynamics of arrivals (absolute and relative quarterly and year) in the "spa resorts", that are of curative treatment and well-defined.

Table 3. Arrivals in "Spa resorts", quarterly and yearly in 2007-2013

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-------------|--------|--------|--------|--------|--------|--------|--------|
| Touristic | | | | | | | |
| area | | | | | | | |
| Spa resorts | 742071 | 727942 | 639739 | 566699 | 686550 | 693646 | 677081 |
| Q1 | 102790 | 108469 | 80381 | 68445 | 75003 | 78367 | 80829 |
| Q2 | 203486 | 191903 | 172494 | 159400 | 180663 | 176743 | 169057 |
| Q3 | 268490 | 266817 | 251592 | 208622 | 282661 | 284355 | 277706 |
| Q4 | 167305 | 160753 | 135272 | 130232 | 148223 | 154181 | 149489 |

The structure of arrivals in "Spa resorts", quarterly and yearly in the period 2007-2013 is presented in Table 4.

Changes that have occurred in the quarterly structure of the number of arrivals in spas are illustrated in the Fig.4.

The analysis of arrivals in the "spa resorts", quarterly analyzed in period 2007-2013 allows us to highlight the issue of the number of arrivals in the first quarter which is a ratio between 11% and 15% of the total number of tourists, and in quarter these conditions is recorded the lowest number of tourists.

Table 4. Arrivals structure in "Spa resorts", quarterly in 2007-2013

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-------------------|----------|----------|----------|----------|----------|----------|----------|
| Touristic area | | | | | | | |
| Spa resorts | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Q1 | 13.85177 | 14.90078 | 12.56466 | 12.07783 | 10.92462 | 11.29784 | 11.93786 |
| Q2 | 27.42137 | 26.36240 | 26.96318 | 28.12781 | 26.31462 | 25.48029 | 24.96851 |
| Q3 | 36.18117 | 36.65361 | 39.32729 | 36.81355 | 41.17122 | 40.99425 | 41.01518 |
| 04 | 22.54569 | 22.08321 | 21.14487 | 22.98081 | 21.58954 | 22.22762 | 22.07845 |

Source: calculus on data from www.insse.ro



Year 2007



Fig. 4. Spa resorts arrival structure, quarterly comparison 2007 and 2013 Source: author calculus

The fourth quarter is ranked second in number of arrivals decreased with a ratio of between 21.5% and 22.5% of the total number of tourists. This quarter, albeit a low tourist flow is two times higher than in first quarter.

A sensible proportion increased compared to the quarters I and IV, is recorded in the second quarter, when the number of arrivals has a proportion of 25% and 28% of the total number of tourists; quarter is peak tourist flow in the third quarter. The proportion of the number of tourists in this quarter is of a size between 36% and 41% of the total number of tourists.

It notes the situation recorded in the third quarter, which is maintained at a higher level and increasing by 5 percentage points, while the first and second quarters are marked reductions in proportions corresponding to two percentage points.

The analysis of dynamics of arrivals based on data in Table 3 and Figure 5 enables to be noted that the dynamics of arrivals in the "spa resorts" shows a downward trend in the first 4 years of the program, reaching a minimum of 566,699 tourists 2010, and in the years 2011, 2012 and 2013 to register a recovery which tends to stabilize at a level of over 680,000 tourists per year.

It may be mentioned that in 2009 and 2010 tourism activity, the economic system of the country as a whole, bear the influence of unfavorable economic and financial crisis that had international expansion (see Figure 5).



Fig. 5. Arrival dynamics in *"Spa resorts" (2007-20* Source: author's calculus

The mathematics of the general trend recorded number of tourists is possible to achieve by a linear trend equation summarizing the dynamics of arrivals in the "spa resorts", 2007-2013. Defining the equation is obtained by using least squares and has the following expression:

 $y_1 = 707211.2857 - 7741.107143 t$,

Where y represents estimates of the number of arrivals as linear trend and t is the time variable for granting conventional sizes: 1, 2, 3, 4, 5, 6, 7 related to the 7 years of the program.

Based on linear equation formalizing the general trend in the number of arrivals, the estimated size of the parameter b = -7741.107143 allows us to mention that during the 7 years of the period under review recorded a mean decrease from one year to the next with 7741.1 tourists.

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Figure 5, through the arrangement of points, however, provides an alternative modeling and which conforms to a parabolic curve.

In this case, the equation trend is represented as follows: $y_1 = 828653.7143 - 88702.72619$ t + 10120.20238 t². It is noted that this model is highly particularized in the economic situation of the years 2009 and 2010 which may be considered contingent, as there is a clear tendency to increase the number of arrivals in the coming years.

Analysis of trend in the number of arrivals "seaside resorts"

In Table 5 are presented statistical data that characterize the dynamics of arrivals in the "Seaside resorts" where the tourist flow is significantly influenced by the seasonality factor.

Table 5. Arrivals in "Seaside resorts", quarterly and yearly in 2007-2013

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-------------------|--------|--------|--------|--------|--------|--------|--------|
| Touristic area | | | | | | | |
| Seaside | | | | | | | |
| resorts | 796162 | 832589 | 788356 | 702517 | 735881 | 804198 | 728748 |
| Q1 | 16923 | 18500 | 16836 | 15381 | 11600 | 14341 | 12646 |
| Q2 | 196669 | 178459 | 174677 | 143091 | 125555 | 149858 | 148135 |
| Q3 | 557689 | 614498 | 574714 | 523968 | 575199 | 618762 | 549205 |
| 04 | 24881 | 21132 | 22129 | 20077 | 23527 | 21237 | 18762 |

Table 6.Arrivals structure in "Seaside resorts", quarterly in 2007-2013

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--------------------|----------|----------|----------|----------|----------|----------|----------|
| Touristic area | | | | | | | |
| Seaside resorts | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Q1 | 2.12557 | 2.22198 | 2.13558 | 2.18941 | 1.57634 | 1.78327 | 1.73531 |
| Q2 | 24.70213 | 21.43423 | 22.15712 | 20.36833 | 17.06186 | 18.63446 | 20.32733 |
| Q3 | 70.04718 | 73.80568 | 72.90032 | 74.58439 | 78.16468 | 76.94150 | 75.36281 |
| 04 | 3.12512 | 2.53811 | 2.80698 | 2.85787 | 3.19712 | 2.64077 | 2.57455 |

Source: calculus on data from www.insse.ro

The dynamics of the structure arrivals in "Seaside resorts" (figure 6) in the quarters period (2007-2013),analyzed provides conclusive information on tourist flow which can be summarized as: the number of arrivals in the first quarter and fourth quarter has a proportion of between 1.6% and 3.2% of the total number of facilities. It appears that these two quarters has poor tourist attraction because there are not the conditions to satisfy the desires of leisure; second quarter is positioned on a higher place with a sensible proportion increased from 17.0% of arrivals and 24.7% of the total number of tourists. This quarter, touristic flow records that still the influence of bear unfavorable climatological decisive factor; quarter is peak tourist flow in the third quarter. The proportion of the number of tourists in this quarter is 70.0% to 78.2% of the total number of tourists.



Fig. 6. Seaside resorts arrival structure, quarterly comparison 2007 and 2013 Source: author calculus

The shape of figure 7 provides information support about the linear trend equation on the dynamics of arrivals in the "Seaside resorts" for the period 2007-2013.

Defining of the linear mathematical model is obtained using the least squares method and has the following expression:

```
y_2 = 814278.5714 - 11124.96429 t,
```

where y represents estimates of the number of arrivals as linear trend and t is the time variable for granting conventional sizes: 1, 2, 3, 4, 5, 6, 7 related to the 7 years of the program.

Linear equation shaping the general trend in the number of arrivals in the seaside resorts, by the estimated size of the parameter b = -11124.96429 allows us to mention that during the 7 years of the period under review it was recorded an average fall from a year to another by 11,125 tourists.

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Fig. 7. Arrival dynamics in "Seaside resorts" (2007-2013)

Source: author calculus

Analysis of trend in the number of arrivals in the "mountain resorts"

Table 7 presents the statistics which characterize the dynamics of arrivals in the "mountains resorts", the tourist flow shows a general characteristic of relative uniformity quarterly, without significant discrepancies from one quarter to another.

Table 7. Arrivals in "mountain resorts", quarterly and yearly in 2007-2013

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---------------------|----------|--------|--------|--------|---------|---------|---------|
| Touristic area | | | | | | | |
| Mountain resorts | 997742 | 998468 | 830943 | 808853 | 953332 | 1110463 | 1233390 |
| Q1 | 208192 | 209610 | 172585 | 153227 | 173757 | 214355 | 261350 |
| Q2 | 240373 | 224404 | 196267 | 186339 | 205946 | 243985 | 271350 |
| Q3 | 303208 | 321213 | 279619 | 266910 | 330398 | 388508 | 413173 |
| 04 | 2/150/60 | 243241 | 182472 | 202377 | 2//3231 | 263615 | 287517 |

Table 8.Arrivals structure in "mountain resorts", quarterly in 2007-2013

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---------------------|----------|----------|----------|----------|----------|----------|----------|
| Touristic area | | | | | | | |
| mountain resorts | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Q1 | 20.86632 | 20.99316 | 20.76978 | 18.94374 | 18.22628 | 19.30321 | 21.18957 |
| Q2 | 24.09170 | 22.47483 | 23.61979 | 23.03744 | 21.60276 | 21.97146 | 22.00034 |
| Q3 | 30.38942 | 32.17059 | 33.65080 | 32.99858 | 34.65718 | 34.98613 | 33.49897 |
| Q4 | 24.65256 | 24.36142 | 21.95963 | 25.02024 | 25.51378 | 23.73920 | 23.31112 |

Source: calculus on data from www.insse.ro

The analysis of arrivals in "mountain resorts", the quarters analyzed period (2007-2013), see Figure 8 allows us to highlight that the number of arrivals in the first quarter have a ratio between 18.2% and 21.0% of the total number of tourists, and in these conditions the quarter recording the lowest number of tourists.

The numbers of arrivals in the second and fourth quarter have comparable proportions ranging from 21.6% and 25.5% of total tourists. It appears that these two quarters shows a tourist attraction beyond the first quarter, due to special conditions created by 98

the existence of holidays and school holidays for spring and winter. Peak tourist flow is in the third quarter. The proportion of the number of tourists in this quarter is of a size between 30.4% and 35.0% of the total number of tourists. In general, third quarter defines the period with a high share of leave which will lead consequently an increase in tourist flow.



Year 2007



Year 2013

Fig. 8. Mountain resorts arrival structure, quarterly comparison 2007 and 2013 Source: author calculus



Fig.9. Arrival dynamics in "Mountain resorts" (2007-2013) Source: author calculus

The graphic from Fig.9 offers informative support option for linear trend equation to represent the dynamics of synthetic arrivals "mountain resorts", 2007-2013.

Linear equation formalizing the general trend in the number of arrivals in the mountain

resorts is obtained by using least squares and has the following expression:

 $y_3 = 839981.1429 + 37618.67857 t$,

where y represents estimates of the number of arrivals as linear trend and t is the time variable for granting conventional sizes: 1, 2, 3, 4, 5, 6, 7 related to the 7 years of the program.

The general trend in the number of arrivals in linear "mountain resorts" by the estimated size of the parameter b = 37618.67857 allows us to mention that during the 7 years of the period under review recorded an average increase from one year to another, with 37618.7 tourists.

Analysis of trend in the number of arrivals "Danube Delta"

Dynamics of arrivals in the "Danube Delta", is presented in absolute and relative terms in Table 9. It is evident that this area has a tourist attraction diminished significantly compared to other tourist areas because of less evolved conditions of reception and leisure.

Table 9. Arrivals in "Danube Delta", quarterly and yearly in 2007-2013

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|----------------|-------|-------|-------|-------|-------|-------|-------|
| Touristic area | | | | | | | |
| Danube Delta | 73767 | 96090 | 70479 | 68414 | 81567 | 88021 | 80885 |
| Q1 | 7325 | 5209 | 6518 | 5936 | 6260 | 9540 | 8174 |
| Q2 | 19610 | 22308 | 17571 | 22265 | 23224 | 26260 | 27075 |
| Q3 | 32517 | 54850 | 34640 | 29128 | 38077 | 37019 | 34971 |
| Q4 | 14315 | 13723 | 11750 | 11085 | 14006 | 15202 | 10665 |

Table 10. Arrivals structure in "Danube Delta", quarterly in 2007-2013

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-------------------|----------|----------|----------|----------|----------|----------|----------|
| Touristic area | | | | | | | |
| Danube | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Delta | | | | | | | |
| Q1 | 9.92991 | 5.42096 | 9.24815 | 8.67659 | 7.67467 | 10.83832 | 10.10571 |
| Q2 | 26.58370 | 23.21574 | 24.93083 | 32.54451 | 28.47230 | 29.83379 | 33.47345 |
| Q3 | 44.08069 | 57.08190 | 49.14939 | 42.57608 | 46.68187 | 42.05701 | 43.23546 |
| 04 | 19.40570 | 14.28140 | 16.67163 | 16.20282 | 17.17116 | 17.27088 | 13.18538 |

Source: calculus on data from www.insse.ro

The statistic data presented in Table 9 and illustrated in figure 10 detailing the structure arrivals "Danube Delta", the quarters analyzed period (2007-2013) enables us to highlight the aspect that the number of arrivals in the first quarter is an amount between 5.4% and 10.8% of total tourists in these conditions is the quarter that has the lowest number of tourists. The number of arrivals in the last quarter of the 7 years analyzed records proportions between 13.2% and 19.4% of the total number of tourists. Both the fourth quarter and first quarter does not provide the desired climatic

conditions to be attractive options of carrying out tourism activities in the area. Second quarter recorded a significant increase in tourist flow in the Danube Delta, compared with the first quarter of this period are the proportions of between 23.2% and 33.5%, is three times higher. Second Quarter ahead also and fourth quarter which marks a decrease obvious tourist flow to the third quarter.

It is noted that the peak tourist flow is in the third quarter. The proportion of the number of tourists in this quarter is of a size between 42.1% and 57.1% of the total number of tourists. Third quarter, by environmental features that define climate offers favorable conditions for leisure.



Fig. 10. Danube Delta arrival structure, quarterly comparison 2007 and 2013 Source: author calculus

The Fig.11 provides information support option for linear trend equation to represent the dynamics of synthetic arrivals "Danube Delta" 2007-2013.

The trend equation [13] summarizing the dynamics of arrivals in the "Danube Delta" for 2007-2013 is obtained by using least squares and has the following expression: $y_4 =$ 77559.85714 + 582.2857143 t, where y represents the estimated values the number of arrivals as linear trend and t is the time variable for granting conventional sizes: 1, 2,

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3, 4, 5, 6, 7 related to the 7 years of the program.



Source: author calculus

The estimated size of the parameter b = 582.2857143 from the linear trend equation [6] allows us to specify that the "Danube Delta" during the 7 years of the period analyzed, there is an average increase from one year to another with 582.3 tourists.

Analysis of the trend in the number of arrivals "Bucharest and town county residence"

The dynamics of arrivals in the "Bucharest and town county residence" is presented in absolute and relative terms in Table 11. The municipalities of our country presents a major tourist attraction due to superior conditions for accommodation and overall quality of tourism services that are offered and the possibilities of leisure in modern locations tailored to the preferences of tourists. Typically, large cities with heavy tourist areas historical importance, institutions, of commercial malls, headquarters of companies, museums, parks, zoos etc...

Table 11. Arrivals in "Bucharest and town county residence", quarterly and yearly in 2007-2013

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---------|---------|---------|---------|---------|---------|---------|
| Torreit a suss | | | | | | | |
| Touristic area | | | | | | | |
| Bucharest and town county residence | 3310664 | 3362865 | 2884121 | 3006862 | 3537932 | 3813196 | 3981161 |
| Q1 | 680444 | 730030 | 617172 | 595557 | 682383 | 759397 | 780399 |
| Q2 | 856137 | 895363 | 759691 | 803631 | 923346 | 1037572 | 1060640 |
| Q3 | 931158 | 927870 | 782212 | 843511 | 1034926 | 1077669 | 1146177 |
| 04 | 842925 | 809602 | 725046 | 764163 | 897277 | 938558 | 993945 |

The statistic data presented in Table 11 and diagram (figure 12) detailing the structure arrivals "Bucharest and town county residence", the quarters analyzed period (2007-2013) enables us to highlight that the number of arrivals in first quarter is 19.3% to 21.7% of the total number of tourists, and in

these conditions the quarter recording the lowest number of tourists.

Table 12.Arrivals structure in "Bucharest and town county residence", quarterly in 2007-2013

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|----------|----------|----------|----------|----------|----------|----------|
| Touristic area | | | | | | | |
| Bucharest and town county residence | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Q1 | 20.55310 | 21.70857 | 21.39896 | 19.80659 | 19.28762 | 19.91497 | 19.60230 |
| Q2 | 25.85998 | 26.62501 | 26.34047 | 26.72657 | 26.09847 | 27.21004 | 26.64147 |
| Q3 | 28.12602 | 27.59165 | 27.12133 | 28.05287 | 29.25229 | 28.26157 | 28.79002 |
| Q4 | 25.46090 | 24.07477 | 25.13924 | 25.41397 | 25.36162 | 24.61342 | 24.96621 |

Source: calculus on data from www.insse.ro

From the research we find that second and fourth quarter of the 7 years analyzed recorded comparable proportions between 24.1% and 27.2% of the total number of tourists (arrivals). Quarter with the most intense tourist activity is localized in the third quarter. The proportion of the number of tourists in this quarter is of a size between 27.1% and 29.3% of the total number of tourists (arrivals).



Year 2013

Fig. 12. Bucharest and town county residence arrival structure, quarterly comparison 2007 and 2013 Source: author calculus

The analysis of arrivals in the "Bucharest and town county residence" in the dynamics of the 7 year period under investigation highlights that make up generally in this area that the tourist flow has a certain temporal uniformity purposes explained in particular by

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professional and business interests.

The graphical representation of Figure 13 may be exposed to information support option for linear trend equation [3] summarizes representing dynamics of arrivals in the "Bucharest and town county residence" for 2007-2013.



Fig. 13. Arrival dynamics in "Bucharest and town county residence" (2007-2013) Source: author calculus

Summarizing, the trend equation of the dynamics of arrivals in the "Bucharest and town county residence" for the period 2007-2013 is obtained using least squares and has the following expression:

 $y_5 = 2904405.286 + 127355.8571$ t, where y represents estimates of the number of arrivals as linear trend and t is the time variable for granting conventional sizes: 1, 2, 3, 4, 5, 6, 7 related to the 7 years of the

program [7]. The estimated size of the parameter b = 127355.8571 from linear trend equation allows us to specify that the "Bucharest and town county residence" during the 7 years of the period analyzed, there is an average increase from one year to another, with 127355.9 tourists.

CONCLUSIONS

Sustainable tourism development meets the needs of present tourists and regions [10] which constitutes their host and also protects and enhances opportunities for the future. Including tourism potential elements that define sustainable development is an important step in the economic recovery of any country.

improve To tourism image orientation requires the development strategy for concrete actions leading to the creation and strengthening of tourism status, so we see the need for a national strategy and a local (regional) strategy. Industry. agriculture. other tourism, services and economic activities must come from human and institutional capacities to harness naturalregional potential in respect to the ecological balance and fulfillment in people's lives behalf.

The period under review (2007-2013) is strongly influenced by the economic crisis which has manifested itself strongly in 2009 and 2010 which disrupted a continuous upward trend of tourist flows. The plots in Figure 3 - Figure 9 clearly illustrate the evolution of the number of arrivals in tourist areas and numerical fall in 2009 and 2010. This economic context that is marked by a strong particular the analyzed period, will influence the shape of the econometric representation and the number of tourist arrivals under these conditions a solution to be considered is increasing the number of observations and replacing marked bv abnormal levels with conventional levels. Linear models identified for the 6 tourist areas have statistical support needed to receive a flawless viability assessment.

Switching to the implementation paradigm "common living whole health" aims to ensure the fulfillment of people's lives from harmony between their needs and the needs of ecological balance. Another economic competitiveness approach limited resources may not result only from life experience using scientific knowledge in the name of responsibility for "the health of the common living". A competition outside the "health of the common living" is an end in itself, motivated solely by financial gain, which brings "nominal monetary gain for some" and "real human and ecological losses for others." What is healthy for business organization industrial, agricultural, tourism etc. - The net profit in the monetary expression to be and people, media, communities and families, for state budgets.

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A great tour, the net added value, can be achieved only when we use the natural potential, economic, spiritual-cultural-zone of a particular region in respect for "the health of the common living," so that all stakeholders gain green economic, social, spiritual, and human social community.

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