ANALYSIS OF TOURISM DEMAND AND SUPPLY - ONE OF THE ESSENTIAL ELEMENTS OF AN AREA IN TOURISM PLANNING

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Abstract

To achieve the best possible activities of interest is required in addition to natural and human resources and material resources to be able to satisfy the needs of tourists. These resource materials are known as "material technical base". This is represented by: accommodation and food , transportation , treatment and leisure facilities and is mainly conditioned by the development and modernization of existing material and technical base . Thus, a highly attractive tourist area can not be on offer before receiving the necessary facilities of receipt and retention of potential tourists . In order to take a tourist development zone is an analysis of tourist traffic to the existing tourist bases . This will do a study on tourism supply and demand analysis to one of tourist accommodation in the resort Logs . In order to accomplish this study will calculate and interpret tourism indicators most representative and most commonly used to express the tourist traffic are: The number of tourists, the daily average number of tourists , the number days / tourist , average length of stay , number total accommodation places , tourist traffic density , the total number of overnight stays , occupancy of accommodation , and tourists the relative preference.

*Key words***:** *average length of stay, distribution of global tourism demand, occupancy of hotels and hostel, tourist traffic analysis, tourist traffic density*

INTRODUCTION

Tourism-environment relationship is of great importance, protection and conservation of the environment being important condition for development and tourism development [4]. This relationship is complex, it manifesting in both directions. Natural environment through its components are based tourism resources and tourism activity on the other hand has influence both positive and negative ecological environment, modifying the components.

The environment is defined as quality of life, living conditions of the people and the natural habitats suitable for animals and plants. Quality of life is determined by the long-term availability in sufficient quantity and of appropriate quality resources such as water, air, earth and space in general and raw materials [2].

As full of natural factors and those created by human activities and, especially, its quality is essential motivation of travel, forming "raw material" of tourism. Therefore, maintaining a high quality of natural resources is a prerequisite for continuation and further development of tourism consumption [10].

Tourism is an important contribution to maintaining and improving environmental quality, manifesting itself as an active factor of sustainable development is in the interest or involvement in this matter and to work in cooperation with other industries in the quality of the resource base and survival it [9]. The volume of tourist flows is determined by demand and its factors, and the degree of technical equipment territories.

This explains, in large measure, the attraction of different areas, with potentially sensitive close but differentiated technically equipped.

MATERIALS AND METHODS

In order to analyze the area's tourism traffic travel logs, and for better organization and planning tourism will calculate the most representative indicators of tourist traffic as follows: average daily number of tourists, no. overnight stays, average length of stay, tourist traffic density and capacity utilization coefficient of accommodation. Data were

collected from INSSE, Prahova, Bucharest. and data provided by pension "HOUSE MAIA" which were statistically processed and interpreted.

RESULTS AND DISCUSSIONS

Buşteni is a small mountain town in the north of the county Prahova, Muntenia, in central Romania. It is located in the Prahova Valley, at the foot of Bucegi Mountains, with a maximum altitude of 2505 m has a population of 10,374 inhabitants [1].

The average altitude is 850 m Busteni is one of the most popular mountain resorts, offering spectacular views, lots of opportunities and holiday activities, from skiing to hiking. Located 135 km from Bucharest, covers an area of 8.517 km along the valley between "Vadul Cerbului" and tunnel dug in the mountain spur "Muchia Lungă" ("Long Edge") [3].

Busteni includes Poiana Ţapului is dominated by steep Bucegi and has a great starting point for ascents, but is also a true spa, is indicated not only for leisure but also for the treatment of debilitating illnesses, physical exhaustion and intellectual and disorders of the digestive tract and glands.

An interesting point on Prahova County is the geological reserve "Salt Mountain" from Slănic massive salt karst forms of carving and anthropogenic lake. Located on 1.8 hectares of salt mountain appeared to crash the Baia Baciului pit, pit which in the eighteenth century salt is extracted [5]. The collapse caused a landslide on the slope above, which resulted in massive denudation. Subsequent collapse of the ceiling in the middle of the mountain opened a pit 50 m deep, 20 m were filled with water, forming Lake Bride. Monument of rare beauty "Salt Mountain" is unique to our country [7].

Analysi of turist traffic to the *"House MAIA".*

House "Maia" is located in the resort Logs, Prahova County station 100 m and 300 Kalinderu Logs. Pension is entirely new construction, conducted according to the highest standards of comfort and safety,

properly equipped to offer moments of tranquillity and relaxation.

Photo.1. "MAIA House"-External view

The pension has a capacity of 24 beds and are distributed as follows:
- Accommodation in 2 bedrooms with 2 beds;
- Accommodation in 6 rooms with double beds;
- Accommodation in 2 bedroom apartment accommodation.

Rooms have cable TV, hot shower, fridge, mini-bar, new furniture and very good quality and also very spacious. On each floor, there's a kitchen equipped with coffee maker, microwave, etc.. Guests have access to the floor. In the courtyard, guests have access to barbecue. The pension also has 2 parking spaces.

Rates per night:
- For the 8 rooms price is 40 lei per night
- For the 2 apartment with 2 rooms price is 80 lei per night.

The cost of rooms will vary depending on season, duration of stay and group size.

Photo 2. "MAIA House"-Living room

Photo 3. "MAIA House"-Bar room

Photo 4. "MAIA House"-Bedroom

Proposals to improve

- Opening a restaurant with about 100 seats a pleasant, traditional and international tourists affordable stay at the guest house and more.
- Installation unerase wireless networks.
- Building a playground for children.
-Purchase of ATV rides in the slope Kalinderu.
- Organizing sports activities that people of all ages can participate with various awards.

The benchmark tourist traffic analysis for the tourist "HOUSE MAIA"

The indicators reflects the distribution and evolution of tourism supply and demand.

Table 1. Tourism supply and demand indicators in "House Maia"

Indicators	2009	2010	2011
Number of nights	2904	3496	3920
Number of Romanian tourists	960	1152	1284
Number of foreign tourists	12	20	34
Total tourists (Romanian + foreign)	972	1172	1318
Total number beds in hostels	80	108	111
Seats on board	24	24	24
The average stay	3.02	3.03	3.05

Source: Pension Administrator "House Maia"

They also reflect the behaviour of the application on the use of vehicles and equipment for receiving and can be used for studying the origin and destination of tourism demand, the average stay and fidelity to a particular destination

To calculate these indicators is necessary to know the indicators and they are presented in Table 1.

Of the most important tourism indicators look:

a.Index of global tourist demand change

$$\Delta CG_{0-i} = \frac{CG_i}{CG_0} \cdot 100$$

where: CG_i -global tourism demand in year "i"

CG_o -global tourism demand in "0".

$\Delta C_{t2009-2010} = (1172 / 972) * 100 = 120.57 \%$
$\Delta C_{t2010-2011} = (1318 / 1172) * 100 = 112.45 \%$

Global tourism demand fell in 2011 by 8.12% compared to 2010. In 2010 was an increase of 20.57% from 100%.

b.Index distribution of global tourism demand

$$\Delta CI_{0-i} = \frac{CI}{CG} \cdot 100 \; ; \; \Delta CE_{0-i} = \frac{CE}{CG} \cdot 100$$

where: CI - domestic tourism demand;

CE - foreign tourism demand.

CG - global tourism demand

$I_{i2009} = (960 / 972) * 100 = 98.76 \%$
$I_{e2009} = (12 / 972) * 100 = 1.23 \%$
$I_{i2010} = (1152 / 1172) * 100 = 98.29 \%$
$I_{e2010} = (20 / 1172) * 100 = 1.70 \%$
$I_{i2011} = (1284 / 1318) * 100 = 97.42 \%$
$I_{e2011} = (34 / 1318) * 100 = 2.57 \%$

From the above analysis we can see that the highest number of tourists who come to "House Maia" is Romanian, while the number of foreigners is very low, mainly thanks to the fact that they do not prefer hotels and pensions.

c.Index of (domestic and foreign) demand variation in time

$$ICE_{0-i} = \frac{CE_i}{CE_0} \cdot 100 \; , \; ICI_{0-i} = \frac{CI_i}{CI_0} \cdot 100$$

where: ICE_{o-i} - index variation in external demand;

ICI_{o-i} - *index of variation in domestic demand.*
ICI $_{2010}$ = (1152 / 960) * 100 = 120 %
ICE $_{2010}$ = (20 / 12) * 100 = 166.66 %
ICI $_{2011}$ = (1284 / 1152) * 100 = 111.45 %
ICE $_{2011}$ = (34 / 20) * 100 = 170 %
Changes in domestic and foreign tourism demand has been growing because the number of Romanian and foreign tourists had a slight increase. Index of demand variation tourism is reflected in the assessment of service quality tourists to this board.

d.The monthly concentration coefficient (No. tourists per month / No. tourists for the year 2011)

$$C_c = \frac{LM}{A_t}$$

For this we consider the year 2011 and the number of tourists every month is as follows: January 137, February 128, March 104, April 116, mai88, June 151, July 145, august 166, September 78, October 54, November 146 In December 105, A_t = *1318 tourists*.
C $_{c\ ian}$ = (137 / 1318) * 100 = 10.39 %
C $_{c\ feb}$ = (128 / 1318) * 100 = 9.71 %
C $_{c\ mart}$ = (104 / 1318) * 100 = 7.89 %
C $_{c\ apr}$ = (116/ 1318) * 100 = 8.80 %
C $_{c\ mai}$ = (88 / 1318) * 100 = 6.67 %
C $_{c\ iun}$ = (151 / 1318) * 100 = 11.45 %
C $_{c\ iul}$ = (145 / 1318) * 100 = 11 %
C $_{c\ aug}$ = (166 / 1318) * 100 = 12.59 %
C $_{c\ sept}$ = (78 / 1318) * 100 = 5.91 %
C $_{c\ oct}$ = (54 / 1318) * 100 = 4.09 %
C $_{c\ nov}$ = (46 / 1318) * 100 = 3.49 %
C $_{c\ dec}$ = (105 / 1318) * 100 = 7.96 %
Tourist highest concentration, calculation year 2011 was recorded in June with a percentage of 11.45%, and the lowest monthly tourist concentration was recorded in November at a rate of 3.49%.

e.Indicator development board accommodation capacity: (*No. of seats*)

$$\Delta LC_{0-i} = \frac{LC_i}{LC_0} \cdot 100$$

$\Delta C_{t\ 2010}$ = (24 / 24) * 100 = 100%
Due to the fact that the number of beds in rooms has not changed in the period under review, this touristic indicator did not change.

f.Structure of the total accommodation capacity in pension
- the weight capacity of the hostel) in total accommodation capacity in hostel

$$Icc = \frac{LC}{LH} \cdot 100$$

where: LH - the board seats;
LC - total accommodation capacity in pensions;
S $_{cp\ 2009}$ = (80 / 24) * 100 = 333.3 %
S $_{cp\ 2010}$ = (108 / 24) * 100 = 450 %
S $_{cp\ 2011}$ = (111 / 24) * 100 = 462.5 %
"House Maia" is analyzed from an accommodation capacity of 24 seats, while the total number of beds in hostels varies from year to year. Proportion of the pension is the total beds in hostels is increasing in 2009-2011.

g.Pension clients during development index "0 - i" [(No. of Romanian tourists + No. foreign tourists) current year / (No. of Romanian tourists + No. foreign tourists) last year] *

$$\Delta T = \frac{TP_i}{TP_0} \cdot 100$$

Where: TP_i - Tourists on board in "i";
TP_o - Tourists on board in "0".

ΔTp $_{2010}$ = (1172 / 972) * 100 = 120.57 %
ΔTp $_{2011}$ = (1318 / 1172) * 100 = 112.45 %

In 2010-2011, tourists come to "House Maia" has seen growth year on year. The largest increase recorded in the number of tourists is increasing in 2010 being 20.57%.

h.Development index overnight stays (No. overnights 2010/2009 and 2011/2010)

$$\Delta N = \frac{NH_i}{NH_0} \cdot 100$$

where: *N - no. nights (current year and previous year).*
ΔNp $_{2010}$ = (3496 / 2904) * 100 = 120.38 %
ΔNp $_{2011}$ = (3920 / 3496) * 100 = 112.12 %
Number of overnight stays has grown increasing every year knowing maximum growth in 2010 increased by 20.38% when.

i.Progress indicator average length of stay in hostel

$$\triangle \overline{S} = \frac{\overline{S_i}}{S_0} \cdot 100$$

where: S_i - average length of stay in a given period (month, quarter, year) when "i";
S_o - the average length of stay at the time of "0" (month, quarter, year).

$\Delta S_{m\ 2010} = (3,03\ /\ 3,02) * 100 = 100.33\ \%$
$\Delta S_{m\ 2011} = (3,05\ /\ 3,03) * 100 = 100.66\ \%$

The average stay in the analyzed period was stable trend, showing growth.

j.Pension occupancy indicator (employment)

$$G_0 = \frac{NH \cdot 100}{LH \cdot Z} = \frac{NT \cdot S}{LH \cdot Z} \cdot 100$$

where:
G_o - occupancy percentages;
NH - number of nights;
LH - number of seats in the board;
Z - the number of days of supply pension;
NT - number of tourists,.
S - average length of stay,

$G_{\ 2009} = [2904\ /\ (24 \times 365)] * 100 = 33.15\ \%$
$G_{\ 2010} = [3496\ /\ (24 \times 365)] * 100 = 39.90\ \%$
$G_{\ 2011} = [3920\ /\ (24 \times 365)] * 100 = 44.74\ \%$

Occupancy indicator increased pension in the period under review with a percentage of 11.59% in 2011 compared to 2009.

k. Indicator in relation to population density tourism

$$D_{t_{i-0}} = \frac{T_{t_{i-0}}}{Population} \text{ (tourists/ no. inhabitants)}$$

where:
T_{i-0} − total Romanian tourists + total foreign tourists;
Pop - population

Table 2. Tourist flow, 2009-2011

Years	2009	2010	2011
No. total tourists	972	1172	1318
Local people	10783	10548	10327

Source:Statistical Yearbooks of Prahova County

$D_{t\ 2009} = (972\ /\ 10783) = 0.09$
$D_{t\ 2010} = (1172\ /\ 10548) = 0.11$
$D_{t2011} = (1318\ /\ 10327) = 0.18$

The number of tourists has increased in the period under review, compared to its population has been declining.

l. Tourist density indicator in relation to surface

$$D_{t_{i-0}} = \frac{T_{t_{i-0}}}{Surface} \text{ (tourists/km}^2\text{)}$$

where:
T_{i-0} - total Romanian + total foreign tourists;
S - area city = 8,517 km^2
$D_{ts\ 2009} = (972\ /\ 8517) = 0.11$
$D_{ts\ 2010} = (1172\ /\ 8517) = 0.13$
$D_{ts\ 2011} = (1318\ /\ 8517) = 0.15$

Because the number of tourists increased in 2009-2011, and the area of the village is the same, this indicator was insignificant variations.

CONCLUSIONS

Economic and social development is combined with tourism development in that specific tourism activities by their complexity, contributing to the overall development of the area, while this development will in turn cause an increase in tourist traffic.

Locals and local authorities are trying to diversify the rural tourism supply and demand after the tourist market trends. Farmhouses built or which provide features that outside countries. That appeared competition between tourism and agro pensions due to the low number of tourists who choose to accommodate the agro pensions. Therefore pensions are growing agro touristic pensions face facing a serious decline.

The national tourism be tried removing the insulation and Romanian village development, allowing its use. To help create the purpose and existence of funds in their direction.

The European Union is willing to allocate some lend for rural development. Some people accept the responsibility for long-term development taking into account the national interest and international requirements

Endowed with great tourism potential varied, diversified and focused by the existence of landforms combined throughout, a favourable climate for tourism for most of the year, a potentially rich fauna and flora species and ecosystems single in Europe spa treatment with natural factors, with cultural heritage -

historical and global reference architecture, Prahova county may fall among attractive tourist destinations in Romania and even Europe.

The main measures that should be applied to achieve tourism development activities and tourism development in the locality Logs could be: the creation of programs and funds to co-finance regional development projects, linking with the national programs of local and regional expansion communications in tourist areas, modern and efficient transport, promote regional tourism potential through participation in tourism fairs, the execution of advertising campaigns, preparation of brochures with information about the area's tourism potential and suggestive images in this sense, media hostels and agrotourism farms.

Tourism is an important contribution to maintaining and improving environmental quality, manifesting as an active factor of sustainable development is in his interest to get involved in this issue and to work in cooperation with other industries in the quality of the resource base and survival it.

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