

Prevision model of the regional development of tourism in Barsei Plain

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Abstract: Between the economic-social developments that combine harmoniously the tourism in Barsei Plain there is a relationship of correspondence and reciprocity. The statement is based on the double implication that appears as a circuit, in the sense that the activities

Specific to the tourism by their complexity contributes to the ensemble development of the region, while this development will determine at its turn the increase of the tourism circulation.

In this context, appears the necessity of future anticipation, process by which it can be achieved the stability of the tourism phenomena that must be followed, with the purpose of obtaining better results, for achieving certain goals.

This prevision process represents the basis for all the decisions concerning the tourism development strategy in Barsei Plain.

Key words: region, tourism circulation, regional development, tourism phenomenon, prevision, emitting area, receiving area, tourism product, reception capacity, environment spore, trend.

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I. INTRODUCTION

TOURISM specific components from the start of tourism activities, through the complex assembly creating by it, influence the evolution of other fields, determining fundamental effects of the national economy.

These elements by their interaction, determine immediate or long term effects, of economic, social, cultural etc. nature that are manifested not only at national and regional level, being able to highlight the influence of tourism in the economic social development of Barsei Plain.

The forecast regarded as modality, procedure or assembly of procedures, by means of which we provide research, analysis, knowledge and description of objective reality, in the purpose of anticipating, initiating and organizing a future action based on efficiency criteria.

The method does not refer to passively knowing the reality, but show which shows the best ways to follow.

Among multiple forecast methods used we mention, both mechanical and analytical methods, allowing the obtainment of absolute values of the studies indicators, and the method of Markov chains leading to predicting structural modifications of indicators subject to statistical analysis processes.

II. PROBLEM FORMULATION

In order to predict tourism development in Barsei Plain we propose a model of forecast consisting mainly in the following stages:

- determination of reception and charging thresholds of tourism area considering the development level of tourism areas;
- forecast of tourism circulation indicators – more exactly forecast of the number of nights of accommodation, main element in estimating the accommodation capacity for the forecast period;
- determination of the total accommodation capacity expressed in the number of places based on forecast of the number of nights of accommodation and estimation of the coefficient of use of the accommodation capacity;
- analysis and forecast of modifications in the structure of accommodation capacity as per main types of units by using the method of Markov chains;
- determination of the necessary of places to built in total and as per types of units.

2.1. Objectives of the research

Economic welfare and social progress depend on the activities exploiting natural resources that may cause environment damages. Natural resources represent the main tourism attraction and cannot be exploited without risks to depreciate or destroy the environment.

Thus, the tourism saturation issues and the increased pressure over resources have led to the emergence of the concept of reception capacity.

There is dissociation between the tourism development areas from the ones where these already exist. In the first case, the balanced management of resources is easier for solving the level of supportability and charge of the environment and variety of the offer.

III. PROBLEM SOLUTION

3.1. Hypotheses of the research

We consider three types of tourism areas to which the charge capacity refers to[1]:

- *tourism issuant areas* where the overburden of the environment is determined by a bad management of the departing points or in areas with dominant tourism forms (seaside, cultural, winter sports etc.)
- *transit areas* where charging is provided by overcrowding of the transport means between the departure and arrival area;
- *reception areas (destination)* where the environment is physically disturbed, from social economic point of view, reaching sometimes even to the destruction of the tourism area's image.

With regard to criteria of assessment of the maximum reception capacity, they have two components[1].

Local environment covering natural elements of social-economic development, of cultural level with limited resources. The assessment criteria aim at:

- physical aspects: visual impact at acceptable level, threshold where ecologic damages occur, the need to preserve the maritime and wild life;
- economical aspects: establishment of the tourism volume producing maximum tourism benefits, the level of jobs adapted to local communities;
- social cultural aspects: determination of the acceptable tourism volume, establishment of the tourism level able to allow the maintenance, preservation of monuments without negative effects;
- general and specific infrastructure aspects: water supply, gas supply, sewerage, purification, transport infrastructure, medical equipment or qualified tourism staff.

Image (tourist – related product)

The idea of image is assimilated to the landscape (natural or anthropic environment) associated with the range of tourism products provided.

In less fragile areas the volume may be calculated through the image, i.e. through the tourism product achieved. The

main idea is that the product must meet the demand both of the tourists and of the residents. The criteria refer to:

- physical aspects: level of attraction, quality of tourism structures and spare time entertainment, favorable climate features;
- economic aspects: cost of stay;
- social – cultural aspects: quality of local craftsman products, culinary curiosity; culture;
- general and specific infrastructure aspects: level of quality equipment, tourism and public services.

Determination of acceptance thresholds and loading of the area is necessary because it allows to the government authorities to draw up a tourism development strategy without negative repercussions over the environment [4].

Thus the problem related to tourism saturation is solved, because the unbalance between the demand and infrastructure occurs during the maximum crowded period.

3.2. Means and tools of research

Determination of the reception capacity takes into account the level of development of the tourism areas. From this point the view the following can be noted:

- tourism areas in development, having a valuable tourism potential and where tourism reception thresholds can be determined, in view of efficiently using the resources. The priorities must be established either through the strategy of governmental authorities or by a quality management. Romania has many resources insufficiently capitalized.
- Developed tourism areas found in the countries with a strong tourism industry where specific activities reached a high level of concentration and where a re-management policy of tourism resources is required.

Our country has tourism traditional areas, but where the development or specialized structures led to over-exploitation of resources and the intense traffic led to the degradation of the environment.

The global policy for establishing the tourism saturation must start from the determination of the following priorities[1]:

- definition of the theoretical global tourism potential, on long term, depending on national or regional resources;
- determination of the type of tourism product or image intended to be achieved;
- analysis of the level of demand for a certain touristic product;
- evaluation of the material conditions necessary for the achievement of the suitable reception capacity, according to the existent transport network, volume of necessary investments;
- determination of the social economic and ecologic impact dimension.

Establishing the capacity of reception is carried out based on rules and standards that can be general and used for all types of tourism structures and special, applicable only to certain forms of tourism or refer to the analysis of certain physical and cultural aspects.

The laws impose a strategy of using natural and anthropic resources able to provide their optimal exploitation.

The following are part of the general indicators:

- optimum capacity of reception (supportability) of the territory calculated according to the below formula:

$$C_p = I \text{ and } x N_i \times K_i$$

where:

C_p – optimal capacity of reception;

And – surface /volume of each resource

N_i – space share for each individual

K_i - index of use of each resource at peak hour.

- intensity of spatial use, representing the volume of days – tourist that can be reached in a certain area. This is set forth according to the features of the natural background as follows:
- for intensely developed areas is of 500 days per tourist /ha /year;
- for extensively developed areas with limited resources: 200 days /tourist /year;
- for natural protected areas (natural reservations, national parks): 5 days /tourist /year

By means of this index one can calculate the dimension of tourism flows and of the tourism material basis.

Special indicators are differently used for tourism forms.

We provide an example as follows:

- development of balneal tourism depends on varied natural resources: thermal substances, mud, moffete, therapeutically salted areas; the dimensions and the profile of their treatment capacity are correlated with the volume and quality of resources;
- the seaside tourism development largely depends on the quality of the coastal area, being identified three types of seaside shores: wide, sandy beach, beach delimited by the sea-front and without beach;
- the development of mountain tourism depends on average and maximum altitudes, relief, density of fragmentation thereof, gradient of slopes. For trips the accepted charge is of 100 individuals per ha for accessible lands and 30-80 individuals per ha for rugged lands. For winter sports, the capitalization and zoning depends also on natural factors.

3.3. Research results and graphic interpretation

According to the general and tourism economic development, these parameters may suffer modifications due to the level of capitalization of resources and level of pollution recorded. [2]

In Barsei Plain we have identified the following classes of touristic attraction areas:

- protected natural areas (table 1) whose total surface is of 10627 ha

Table 1. Protected natural areas in Barsei Plain

Type	Surface (ha)
Reservation Piatra Craiului	1422.2
Reservation Cheile Zarnestiului	109,8
Reservation Bucsoiu – Valea Malaiesti – Valea Gaura	113
Reservation Dealul Lempes	274,52
Reservation Padurea Bogatii	8500
Mount Tampa	188,2
Reservation Padurea Stejăriș	20

Source: County Statistic Department of Brasov

- areas developed from the point of view of tourism services provided firstly covering the winter resorts Poiana Brasov and Predeal, as well as the localities Bran, Moeciu (table 2) as well as the municipality of Brasov, partially, whose actually used surface for tourism and entertainment purposes was estimated to approximately 14.000 ha.

Table 2. Intensely developed from the point of view of tourism services in Barsei Plain

Resorts	Surface (ha)
Poiana Brasov	2000
Predeal	5839
Bran – Moeciu	9491

Source: County Statistic Department of Brasov

- extensively developed area (table 3) with limited tourism resources, but that through the development of the specific infrastructure can be transformed in areas with a rich offer of tourism services covering mainly the areas of Brasov, Codlea Fagaras, Sacele, Ghimbav, Râșnov, Rupea and Zărnești.

Table 3. Extensively developed areas from the point of view of tourism services offer in Tara Bârsei

City	Surface (ha)
Brasov	26732
Codlea	12520
Fagaras	3593
Sacele	32086
Ghimbav	2758
Predeal	5839
Râșnov	15225
Rupea	7630
Victoria	930
Zărnești	20475
Bran	6785
Moeciu	9491

Source: County Statistic Department of Brasov

Starting from here we estimated that the protected areas would allow a number of 53135 days tourist per year, and the areas Poiana Brasov, Predeal, Bran and Moeciu might

provide an annual capacity of approximately 7000000 days /tourist. This capacity of 'accommodation' may be enlarged by including in the near future within intensely developed tourism areas of areas classified as extensively developed. Considering that in 2009 in Barsei Plain approximately 1450000 days /tourist have been recorded (less than ¼ of the current capacity) it results that the development of the tourism offer up to the optimal capacity stays for an opportunity standing for an important argument in defining the future strategies of development of tourism in Barsei Plain.

Forecast of tourism circulation indicators in the surveyed region

The mechanical methods employed in studying the future, from tourism viewpoint, of Barsei Plain cover the method of average increase and average index, while out of the analytical methods only the linear trend method is deemed suggestive[3].

The oscillations of the tourism circulation within Barsei Plain can be highlighted by means of the main commensuration indicators, the number of arrivals of tourists hosted in accommodation facilities, the number of nights spent over.

The tendencies aiming to their evolution in the period 2001 – 2009 have allowed the forecast of these indicators for the next two years.

The enforcement of mechanical and analytical adjustment methods have allowed the highlight of the evolution of the number of nights of accommodation in the structure of accommodation facilities in the area of Barsei Plain between 2001 - 2009 and estimation of the absolute values of the indicator studies for 2010 and 2011.

The number of estimated nights of accommodation in specialized facilities during the analyzed period is characterized by an oscillating evolution, with increases and decreases more or less significant.

In order to predict the 'accommodation nights' indicator we have used three adjustment methods i.e.: average increase, average index and linear trend, for each of them the average quadratic deviation of the adjusted series was determined as from the real serial and variation coefficient. By using the average increase method there was obtained the evolution of accommodation nights that does not sufficiently follow the evolution of this indicators expressed by empirical data.

The relation of the prediction is:

$$\hat{y} = 1006 - 2.14 \cdot (t-1)$$

The values obtained through this method are displayed in the table 4 below.

Table 4. Forecast of the number of overnight accommodation by methods of average increase

Years	y _i (thousand pers.)	$\hat{y} = y_1 + \Delta \cdot t_i$	$(y_i - \hat{y}_i)^2$
2001	1006	1006	0
2002	910	1003	8649
2003	877	1001	15376

2004	872	999	16129
2005	765	997	53824
2006	816	995	32041
2007	952	993	1681
2008	991	991	0
2009	990	990	0
2010		989	
2011		987	

Through the method of average increase we have determined an average quadratic deviation of 117.63 that related to the serial 898.625 thousand overnights represent 11.8% which means that the method fails to very well adjust the series of data.

The application of the method of the average index in the analysis of evolution of accommodation overnight does not lead to similar results with the ones obtained by the method of average increase. The relation used in this case is:

$$\hat{y} = 1006 \cdot 0.9978^{t-1}$$

Table 5. Forecast of the number of overnight accommodation by methods of average index

Years	y _i (thousand pers.)	$\hat{y} = y_1 \cdot \Gamma^{t-1}$	$(y_i - \hat{y}_i)^2$
2001	1006	1006	0
2002	910	1003	8649
2003	877	1001	15376
2004	872	999	16129
2005	765	997	53824
2006	816	994	30616
2007	952	992	1600
2008	991	990	1
2009	990	990	0
2010		988	
2011		986	

In this case, the average quadratic deviation of 117.628 that related to the average of the serial 898.625 represents 11.86%. The result is similar to the one obtained by the method of average increase.

In the analysis of the evolution of the number of overnights accommodation we have also used a regression method, i.e., the method of linear regression. For this purpose, starting with the empirical data related to the number of overnights for the analyzed period we have determined the following econometric model:

$$\hat{Y} = 898.625 + 5.43 \cdot t$$

By using this model we have obtained the evolution of the number of nights spent in the accommodation facilities displayed by table 6.

Table 6. Forecast of the number of nights spent – method of linear trend

Years	y_i (thousand persons)	t_i	t_i^2	$y_i \times t_i$	\hat{y}_i	$(y_i - \hat{y}_i)^2$
2001	1006	- 2	4	- 2012	910	9216
2002	910	- 1.5	2.25	- 1365	906	16
2003	877	- 1	1	- 436	904	729
2004	872	- 0.5	0.25	- 161.5	901	841
2005	765	0.5	0.25	382.5	896	17161
2006	816	1	1	816	893	5929
2007	952	1.5	2.25	1428	890	3844
2008	991	2	4	1982	888	10619
2009	990	2.5	6.25	2475	886	10816
2010					885	
2011					883	

In case of linear trend the average quadratic deviation is 73.291 which related to the average of the series 898.625 represents 7.93%. The result obtained in this case is much better. It results that out of the three used methods the best approximation of the evolution of the number of stays overnight is provided by this one. Nevertheless neither this method does not see that during the last years of the analyzed period is recorded an increase of the number of stays overnight in the accommodation facilities of Barsei Plain.

In order to notice this we have used the method of mobile averages for the adjustment of empirical data recorded. [5] For this we have used the function Data Analysis available in Excel format.

Starting from here we have estimated the evolution of the number of stays overnight using the method of linear trend, for the period 2004-2009, the results obtained are displayed in table 6.

Table 7 . Forecast of the number of stays overnight taking into account the tendency of the period 2004-2009 by the method of linear trend

Years	2004	2005	2006	2007	2008	2009	2010	2011
No. Inn (thousands)	794	836	879	921	964	1006	1049	1091

In the case of linear trend taking into account the tendencies of 2004-2009 the average quadratic deviation is of 57.93, that related to the average of the series 879.2 represents 6.5%. This is thus the best approximation between the methods used by an econometric pattern of the evolution of the number of stays overnight.

The values obtained (table 6,7) provide a future image quite optimistic in the direction of return of the tendency of growth of the number of stays overnight with positive effect on the tourism activity of Barsei Plain.

We have also analyzed the evolution of the number of stays overnight for the main types of accommodation structures. By a comparative analysis of the data the following conclusions can be drawn:

- the year 2002 as to 2001 is characterized by a process of increase in the number of nights spent in the accommodation facilities recorded for camps (1.08%) and hotels (0.93%) as well as a decrease for chalets (1.24%), class 'other types'(0.67%), pensions (0.05%), motels and inns (0.03%) and farms (0.02%).
- As to the previous year 2003 the hierarchy of the number of stays overnight ranks on the first place 'other types' of accommodation (3.42%), then the pensions (0.86%), farms (0.8%) followed by chalets (0.18%); the diminutions established

highlight that the most stressed decrease lays with the hotels (2.43%), followed by camps (2.23%), and villas (0.59%); the motels and inns care ranked as 0.48% both in 2003 and in 2004.

- In 2004 as compared to 2003, the most significant increased related to stays overnight are established at farms (1.19%), so that the pensions, motels – inns, respectively hotels have only 0.84%, 0.16% respectively 0.06%; the decreases recorded oscillate around a percentage so that to the class 'other types' correspond 1.7%, to camps 0.2% while the villas and the chalets have only 0.2 and 0.9%.
- Next to the three types that experienced increased in the previous period (pensions, farms, motels – inns) in 2005 are added also the villas, the percentage values of increase of the number of stays overnight are modified in the direction of the increase as follows: pensions by 2%, farms by 1.86%, villas by 0.82% and motels- inns by 0.08%; the percentage decrease of the number of stays overnight in accommodation facilities are quite low. Supra-unitary values are established for camps 2.13% hotels by 1.98% and sub-unitary for the class 'other types' 0.5% and chalets 0.15%.
- The comparison 2006 and 2005 indicates an increase in the number of stays overnight for the class 'other types' by 5.8%, pensions (4.85%),

motels and inns (1.82%) and farms by 0.83% in the detriment of the other types that reduced the number of stays overnight as follows: hotels by 7.64%, villas 5.51%, chalets 0.85% and camps 0.11%.

- The hierarchy of increases in 2007 as to 2006 is the following: the villas are ranked on the first place by 6.23%, immediately followed by pensions by 5.04% and at large distance by motels – inns recording increases by 0.84% and farms by 0.3% and the decreases of the other types are much more significant exceeding 5% in the case of ‘other types’ (5.98%) and hotels (5.56%) and insignificant for the camps (0.57%) and chalets (0.3%);
- In algorithm, the last years of comparison, 2008 to 2007 indicate an increase of the number of stays overnight at the level of hotels by 1.36% of the class ‘other types’ by 1.19%, farms by 1.07%, of motels and inns by 0.73% and a decrease thereof at the level of pensions by 2.63%, camps by 0.81%, chalets by 0.36% and villas by 0.22%.

In conclusion of the analysis of the tourism activity that will be conducted in Barsei Plain one can notice the tendency of increase of stays overnight, imperiously necessary for the rehabilitation of the tourism in this area.

3.4. The Establishment of the Total Capacity and of Accommodation Structures

The determination of the total capacity has been made on the grounds of the number of forecast nights spent and on the analysis and forecasts of the accommodation capacity structural modifications by the Markov chain method.

The activity forecast in Bârsa Region for 2010 -2011 can be made starting from the evolution registered during the past 8 years (2001 -2009) so that the main indicators can highlight their future tendency.

The estimation of the total accommodation capacity will be made on grounds of the total nights spent number forecast and on the estimation of the capacity use coefficient using the following formula [6] :

$$\text{No. of places} = \frac{\text{Forecasted no. of nights spent}}{\text{CUC}_{\text{forecasted}} \times \text{X days}}$$

For the forecast of the capacity use coefficient, we departed from its evolution during the registered period 2001 – 2009.

If we analyse the evolution of the main accommodation structures’ use number, we notice that during the registered period, this dropped from 41,95% in 2001 to 32,55% in 2006, and after that it registered an elevation of approximately 1% - 2% yearly, reaching 35,80% in 2008, tendency that we consider to be manifested also in future.

On grounds of the nights spent number and on the estimation of the accommodation capacity use coefficient, the number of places that resulted from the calculation presented above should be:

$$\begin{aligned} \text{No. of places}_{2010} &= \frac{\text{Forecasted no. of nights spent}}{\text{CUC}_{\text{forecasted } 45\%} \times 365} \\ &= \frac{1049000}{0.45 \times 365} \\ &= 6388 \text{ places} \end{aligned}$$

$$\begin{aligned} \text{No. of places}_{2010} &= \frac{\text{Forecasted no. of nights spent}}{\text{CUC}_{\text{forecasted } 45\%} \times 365} \\ &= \frac{1049000}{0.45 \times 365} \\ &= 6362 \text{ places} \end{aligned}$$

Table 8 The forecast of the number of places in the accommodation units from Bârsa Region

Years	2004	2005	2006	2007	2008	2009	2010	2011
Place no.	4835	5091	5353	5609	5870	6126	6388	6362

The forecast of the accommodation capacity structural modifications on types of units will be made through the Markov chain method. This method implies to cover the following steps[7] :

- The calculation of the transition matrix – which implies the determination of many transition matrixes depending on the number of years; in each matrix, we take the smallest value, at the lines’ intersection with the columns, finding the “loyalty diagonal”, thus the differences found are distributed in the matrix and represent the percentage of increase and decrease of the analysed indicator’s structure;

- The calculation of the total transition matrix – represents the step when we sum up the elements of transition matrix determined above;
- Matrix transition probabilities determination – resides in the division of each element of the total transition matrix at the line total;
- The Settlement of forecasted structure – which implies the multiplication of the transposed matrix transition probabilities with the vector of the structure in the last known year.

For the forecast made by this method we start from the evolution of the number of accommodation places

from Bârsa Region on categories during 2001-2009 period.

From structural point of view, the number of places repartition on the main types of structure of the tourists' reception is presented in (table 9)

Table 9 The structure of the number of places for the main types of units from Bârsa Region

Types of units	The structure of the number of places (%)								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Hotels	59.55	58.85	56.15	55.42	54.94	49.62	47.15	44.80	42.45
Motels and inns	1.41	0.98	0.66	0.67	0.73	2.55	2.60	3.33	4.06
Villas	5.52	6.23	6.09	5.97	5.34	6.71	7.54	7.91	8.74
Lodges	12.25	12.91	11.68	11.35	11.05	8.19	6.91	4.71	4.20
Camps	13.71	12.14	11.70	10.62	10.02	9.19	6.87	1.38	1.17
Hostels	4.00	4.46	6.37	7.06	7.84	13.98	20.37	27.10	29.58
Farms	2.27	4.02	6.82	8.40	9.54	9.37	8.19	7.73	6.59
Other types	1.28	0.41	0.53	0.51	0.54	0.38	0.36	3.04	3.20
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: The County Statistics' Departments

The forecast of the structure of the number of accommodations from 2011 begins with a calculus algorithm of the transition matrixes with the help of the application C⁺⁺ by means of which each year can be compared to the previous one. This way, the increases, respectively the decreases which are registered from one year to the other, during the 8th years, can be calculated, by establishing 7 transition matrixes which can be interpreted as follows:

- year 2002 compared to 2001 is characterised by a process of increase of the accommodations number registered for the hostels (80.46%), lodges (0.66%), villas (0.71%) and farms (1.75%), as well as of decrease for the hotels (0.7%), motels and inns (0.44%), the "Other types" category (0.87%) and camps (1.57%);

- Compared to the previous year, in 2003, the hierarchisation for the increase of the accommodations number ranks first the farms (2.8%), then the hostels (1.91%), followed by the "Other types" category (0.12%); the established decreases point out that the most accentuated deduction is registered among hotels (2.7%) and lodges (1.23%), followed by camps (0.44%), motels and inns (0.32%) and villas (0.14%);

- in 2004 compared to 2002, the most significant increases regarding the accommodations are established at farms (1.58%); as for the hostels, lodges and inns, the corresponding percents are 0.69%, respectively 0.01%; the registered decreases oscillate around one percent so that the percent accrued to the camps is 1.08%, while the percents corresponding to the hotels, lodges, villas and to the "Other types" category are only of 0.73%, 0.33%, 0.12% and respectively 0.02%;

- together with the three types which have registered increases during the previous period of comparison, the "Other types" category is added in 2004 compared to 2003, the increasing percentage values of the accommodations number being modified in the increasing direction as follows: the "Other types"

category with 0.03%, motels and the inns with 0.06%, hostels with 0.78% and the farms with 1.14%; the percentage decreases of the touristic accommodations number are quite reduced, being established as subdivision values, as follows: for lodges 0.3%, for inns 0.48%, for camps 0.6% and respectively, for villas, 0.63%;

- the comparison of the year 2006 to 2005 points out an increase of the number of touristic accommodations for villas (1.38%), motels and inns (1.82%) and hostels, to the detriment of the other types which have reduced their number of accommodations, as follows: hotels with 5.32%, lodges with 2.86%, camps with 0.83%, farms with 0.17% and the "Other types" category with 0.16%;

- the hierarchy of increases from 2007 compared to 2006 is resembling, motels and inns registering increases with 0.05%, the villas with 0.82% and the hostels with 6.39%; the decreases of the other types are much more significant, the majority surpassing 1%, the hotels being ranked first (2.47%), then the camps (2.32%), the lodges (1.27%), the farms (1.18%) and ranked last with only 0.02 % the "Other types" category;

- the comparison of the year 2008 to 2007 points out an increase of the number of accommodations for villas with 0.37%, for the motels and inns with 0.73%, for the "Other types" category with 2.68% and a decrease at the level of camps with 5.49%, hotels with 2.35%, lodges with 2.21% and farms with 0.46% .

The results obtained allowed, in algorithm, the calculation of the total transition matrix and of the probabilities of transition matrix, that lead to the establishment of the number of places of accommodation structure on types of unities for the years 2010-2011.

The prediction of the accommodation structure on types of unities makes possible the determination of the capacity of accommodation in number of places in the years 2010-2011.

Table 10 The structure of the number of places on types of unities

	Types of unities						
	Hotels	Motels and inns	Villas	Lodge	Camps	Hostels	Farms
2010	2750	216	221	344	73	2054	579
2011	3894	324	483	111	71	909	296

Finally the model proposed allows the determination of the necessary of places to build on types of unities as

difference between the number of places forecasted and the existent number of places.

Table 11 The forecast of the number of places to build in Bârsa region

	Types of unities						
	Hotels	Motels and inns	Villas	Lodge	Camps	Hostels	Farms
No. of places to build	1144	108	262	0	0	0	0

As a first conclusion concerning the evolution of the services of accommodation request in Bârsa region and the capacity of the structures of touristic receiving from the area results that, if we accept a degree of utility of the capacity at the levels of the registered ones, is necessary the construction of new accommodation places in the accommodation structures of the hotel type (1144 places), motels and inns (108 places), villas (262 places). In what concerns the camps, the lodges, the hostels and the farms, their capacity covers the estimated necessary of places for the immediately following period.

If we have a look from an economic point of view to the obtained results, we can draw the conclusion that the economic results of the agents that ensure touristic accommodation services can be substantially improved through measures that can ensure the significant growth of the occupation degree. We estimated an occupation degree a lot under the optimal level of 70% starting from the existent realities currently in Bârsa region. If an occupation degree of approximately 70% would be ensured, the current capacities of the touristic structures would be handling very well, other investments not being necessary. A second important conclusion emerges and that could be that the main direction of action of the economic agents that ensure accommodation services in Bârsa Region, is attracting a larger number of tourists and implicitly the growth of the utilization of the existent capacities, subsequently raising the problem of developing the capacity of accommodation through new investments.

IV. CONCLUSIONS

It is true that the technical-material base of tourism is not used sufficiently, but we still consider that through building some modern accommodation and supplying units could increase the attractiveness degree of the area with beneficial influences over the development of the Bârsa region.

In order to create a balance between objectives, resources, skills and possibilities, a strategic planned activity must exist at the level of Bârsa region, of each touristic providing services unity, also within these.

For this purpose it is necessary, firstly the definition of the existent units mission in Bârsa region also of the material resources and human that are necessary for the development of the activity and reaching the proposed aims, also the identification of new possibilities of development of the current activities, of modernization and diversifying of the provided services, as perspectives of integration of this region on the European touristic market.

This perspective of the integration supposes the modernization of the touristic product of Bârsa region, the development in accordance with the local, national specific and with the requests of the world-wide market.

The touristic offer is more requested when the touristic services are made at superior qualitative parameters - content, promptitude, increased level of client satisfaction, etc., fact confirmed by the national and international experience. If we accept the appreciation according to which the tourism mile stone from Bârsa region becomes the insurance of quality services, then the problematic of the specialized work resources becomes a priority. Of course, the quality of the material base of the touristic activity is essential reaching this objective, but only the competence, the education and the passion of the staff that works mark the quality of the touristic product.

In this context, appears the necessity of involving different natural persons or organizations in conceiving and implementing of some projects of support and durable development of tourism in Bârsa region. The main purpose of the development of this type of projects is to support the durable development from the named region, also the abroad collaboration, and the experience cumulated through their development, shall turn out very useful in the direction of integration of Bârsa region on the European touristic market.

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