

## E-TOURISM AND HOW TO PROMOTE ACCOMMODATION SERVICES IN RURAL MARAMUREȘ

**Diana-Aderina MOISUC**  
**Nela ȘTELIAC**

*Faculty of Economics and Business Administration, "Babeș-Bolyai" University, Cluj-Napoca, Romania*

**Alina-Simona SIMION**

*Faculty of Geography, "Babeș-Bolyai" University, Cluj-Napoca, Romania*

**Anca-Petruța NAN**

*Faculty of Economics and Business Administration, "Babeș-Bolyai" University, Cluj-Napoca, Romania*

### **Abstract**

*There are few regions in Romania where ancestral traditions, costumes and ancient art are still preserved. Maramureș is indeed the zone where they have managed to stay unaltered by modern influences. Thus, the tourism in Maramureș is centred on the village and its folklore, exploited through rural tourism. The development of rural tourism in Maramureș is mainly based on its diversified potential, but it is directly dependent on the accommodation offer available and on the methods of promoting it. Under these circumstances, our study aims at undertaking a comprehensive analysis of the existing accommodation units, of their distribution, and of the various ways of promoting tourist offers.*

*The online tourist market in Maramureș is rather developed and diversified in its product and service offer, due to the listing of accommodation units on many online portals. In order to help and guide users towards a well-defined goal through the chaos on the Internet, we suggest the implementation of expert systems within sites. Expert systems can bring many benefits to both consumers and tourist service providers.*

**Key words:** *Maramureș, Rural tourism, Promotion, Online travel portals, Expert systems.*

**JEL Classification:** *L83, C80, C88*

### **1. INTRODUCTION**

Practising tourism is one of the economic activities that have become salient in the contemporary era. People in our society have an inexhaustible wish to spend time travelling, looking for quiet corners in nature.

Of late, one of the main topics of discussion is "rural tourism", with a special emphasis on rural areas with tourism potential, ways to practise it, and especially on the socio-economic benefits directly resulting from practising tourism.

Maramureș, renowned for its rural tourism, has seen on-going development in this respect, and thus had to witness strong competition between accommodation units, most guesthouses. By adequately stimulating demand, there will be an increase, on one hand, of "customer satisfaction" (as it is referred to in the scientific literature), and on the other hand, it will lead to an increase of tourism-generated revenues.

The attractiveness potential of villages is given by the number of tourist attractions, their value and fame, the degree of preservation and functionality of the attractive elements, but also by the existence of facilities for accommodation, food and entertainment (Mureșianu, 2010).

There is a multitude of elements that make rural tourism attractive in Maramureș County. Unaltered ancient traditions and customs are omnipresent in rural life, and the specific clothing and architecture give it a

specific identity. The identity of Maramureș is completed by its noteworthy landscape and architecture design. Along the main valleys of the county, the regional unity is manifested in a variety of elements in the main regions and sub-regions.

The existing accommodation in rural areas is essential for practising tourism because, by definition, rural tourism supposes that the tourist is lodged and carries out tourism activities in this environment.

The objective of this paper is to analyze the accommodation offer in rural Maramureș, to point out the existing means of promotion, and to suggest new promotion solutions using expert systems. To achieve this objective, we started by a theoretical investigation of official and unofficial data sources (specialized travel portals), followed by practical field research.

The theoretical investigation highlighted the main elements of interest in practising rural tourism in Maramureș. These elements were used in preparing a questionnaire for a survey, which represented the starting point for the field research.

The result of the survey is a database that was further used for specialised analyses. Figure 1 reveals some of the aspects investigated. The resulting database contains additional information about the type of accommodation unit, the means of promotion, the heating systems, the means of entertainment, which is not illustrated in the screenshots, but which has nevertheless constituted part of the object of our research.

Location	Name_of_acomm_unit	Acomm_cost	Places	Ranking	Address	External_aspect	Internal_aspect	Children's_playground	TV	Internet_opportunity	Parking_place	Website_address
Barsana	Cerbul_Carpatin	55	14	2	daisies	main_street	undefined	rustic	no	yes	no	<a href="http://izamaramures.ro/">http://izamaramures.ro/</a>
Barsana	Pop	55	6	2	daisies	main_street	modern	rustic	no	yes	yes	<a href="http://www.informatii-cazare">http://www.informatii-cazare</a>
Barsana	Vila_Barsana	70	54	3	stars	main_street	rustic	rustic	no	yes	da	<a href="http://vilabarsana.ro/index.h">http://vilabarsana.ro/index.h</a>
Barsana	Cabana_Iza	70	17	3	stars	main_street	rustic	rustic	no	yes	no	<a href="http://www.barsanamaramur">http://www.barsanamaramur</a>
Barsana	Fratii_Pasca	70	40	3	daisies	main_street	rustic	rustic	yes	yes	no	<a href="http://www.fratiipasca.ro/">http://www.fratiipasca.ro/</a>
Botiza	Costinar_Aurica	70	20	3	daisies	sec_street	traditional	rustic	yes	yes	yes	<a href="http://www.agrotur.ro/aurica">http://www.agrotur.ro/aurica</a>
Budesti	Perla_Cosaului	55	16	2	daisies	main_street	undefined	modern	no	yes	nu	<a href="http://pensiuneaaperlacosaulu">http://pensiuneaaperlacosaulu</a>
Budesti	PoieniTa	55	28	2	daisies	main_street	modern	modern	no	yes	yes	<a href="http://www.pensiuneaipoieni">http://www.pensiuneaipoieni</a>
Chechis	Milena	70	12	3	daisies	main_street	modern	modern	no	yes	no	<a href="http://www.pensiuneamilena">http://www.pensiuneamilena</a>
Coltau	Florilor	70	18	3	daisies	main_street	modern	rustic	no	yes	no	<a href="http://www.cazaretransilvani">http://www.cazaretransilvani</a>
Copalnic	Casa_de_peste_rau	70	12	3	daisies	sec_street	modern	undefined	no	yes	no	<a href="http://www.skytrip.ro/pensiu">http://www.skytrip.ro/pensiu</a>
Desesti	Irina	70	8	3	daisies	main_street	modern	modern	no	yes	yes	<a href="http://www.pensiuneaairina.r">http://www.pensiuneaairina.r</a>
Glod	In_Poiana	70	51	3	daisies	sec_street	modern	modern	yes	yes	yes	<a href="http://www.pensiunea-inpoi">http://www.pensiunea-inpoi</a>

Figure 1 - The database - the characteristics of guesthouses in rural Maramureş

Source: Screenshots of the database which resulted from field research

## 2. THE EXISTING ACCOMMODATION UNITS IN RURAL MARAMUREŞ

The accommodation offer in rural Maramureş is diversified, as it comprises a varied range of accommodation units: hotels, motels, forest cabins, guesthouses. Among them, rural guesthouses are the most important in supporting rural tourism.

Table 1 - Accommodation unit types and their capacity in rural Maramureş

Unit type	No. of units *	Capacity (no. of people)	Capacity	
			% of total	at county level*
Hotels	10	492	0.08	616.215
Motels	5	174	0.32	53.127
Boarding houses	264	3.380	1.95	173.763
Forest and hunting cabins	15	249	100	249
Private houses /secondary residences	70 **	420	-	?
<b>TOTAL</b>	<b>394</b>	<b>4715</b>	<b>-</b>	<b>843.774</b>

\* Source: INS 2010

\*\* Source: data from the field research for year 2010

\*\*\* Approximate number

The overall number of units we inventoried in the field research was 394, out of which 264 guesthouses, 70 private houses, 15 hunting cabins, 10 hotels and 5 motels.

The offer represented by typically rural accommodation units (tourist guesthouses) is supplemented by other guesthouses located in suburban areas (where both house design and the locals' occupations are typically rural), and the services that they provide are carried out in the rural environment.

The number of existing housing units in rural Maramureş varies according to the information source cited.

The only certainty is what can actually be seen in reality, but even here the exact number is difficult to pinpoint because of the various operating options of housing units: from approved guesthouses, to unapproved ones, with/without identifying signs, functional or not.

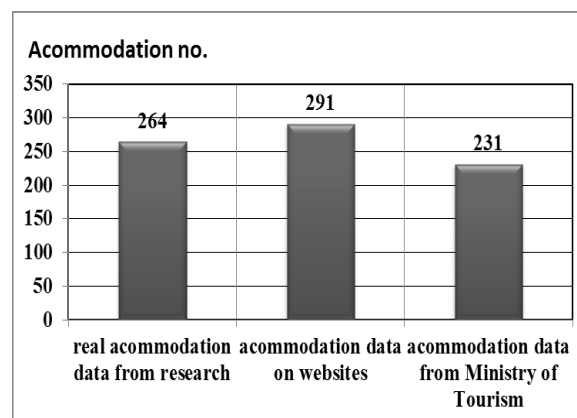
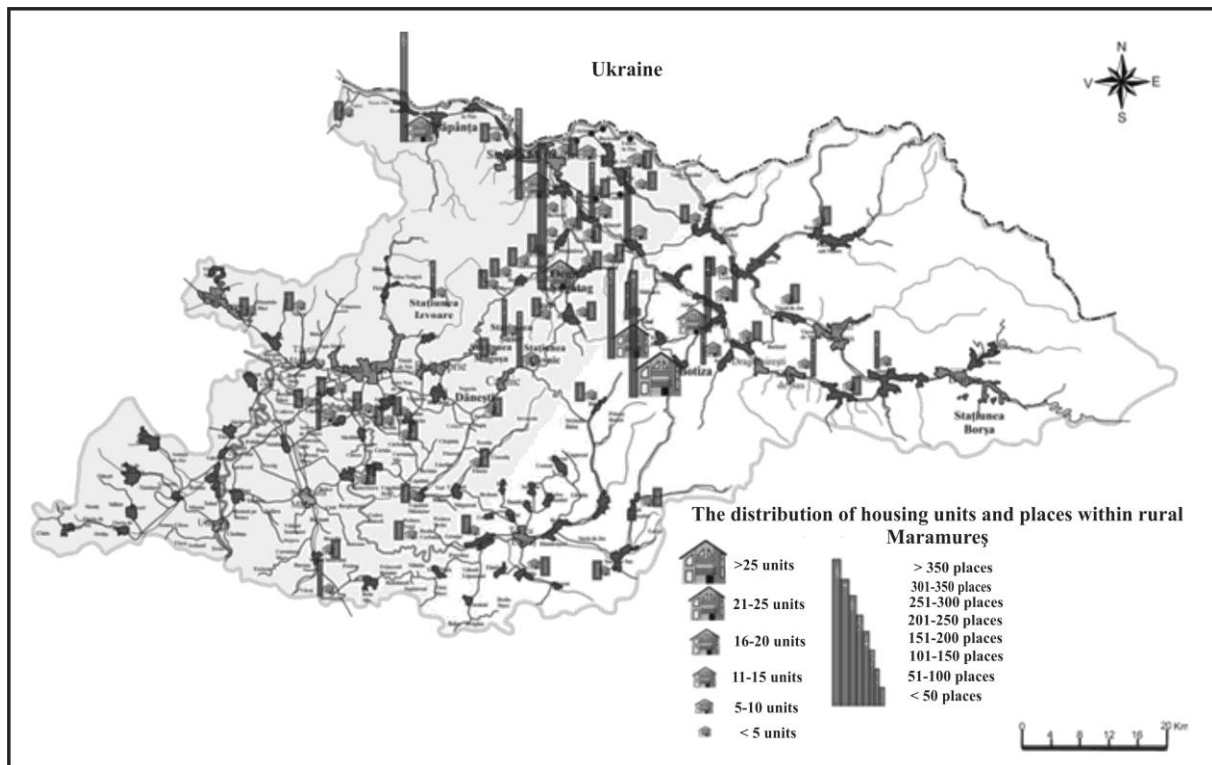


Figure 2 - The current situation of Maramureş's guesthouses

Source: Chart based on the data from the Ministry of Tourism (the 2009 database, the latest), on data collected in field research, and on information from sites that promote rural tourism in Maramureş

Accommodation units are not distributed evenly within rural Maramureş. One can notice villages that boast a large number of guesthouses (Botiza, Poienile Izei, Ieud, Săpânța, Vadu Izei). This is due to their tourist potential, of which the anthropic component weighs the most (namely the traditional structure of households, the preservation of traditions centered around various events of human and religious, the preservation of traditional clothing and rural life).

In some Maramureş villages, rural tourism is still in an initial phase, but the prospects for development are great.



**Figure 3 - The distribution of housing units and places within rural Maramureș**

Source: Made by the authors

### 3. PROMOTING RURAL TOURISM IN MARAMUREȘ

The main feature of the tourism product is that it is consumed "in situ", as it supposes the tourist's progress to it. Buying the product requires prior knowledge of it. The tourist's view it is critical and it is formed using means and methods of promotion (Stăncioiu, 2000).

Promotion in tourism is a set of steps for communicating and continually transmitting, via different means, information on destinations, objectives or services offered in the tourism process (Glăvan, 2000).

In rural tourism, promotion requires significant investments because of the geographically extended tourism market, but mostly because of the existing competition and the intangible nature of the tourism product.

The strong development of rural tourism in recent years has triggered a fierce battle in promoting regions and their related services in order to increase sales. Efficient promotion in tourism strategy does not suppose following merely one applied strategy, but rather coming up with a joint strategy, combining advertising, public relations, sales promotion etc. During the promotion process, customer awareness can be achieved by various means: advertising based on brand image, advertising highlighting the low-cost strategy, advertising specially addressed to a target

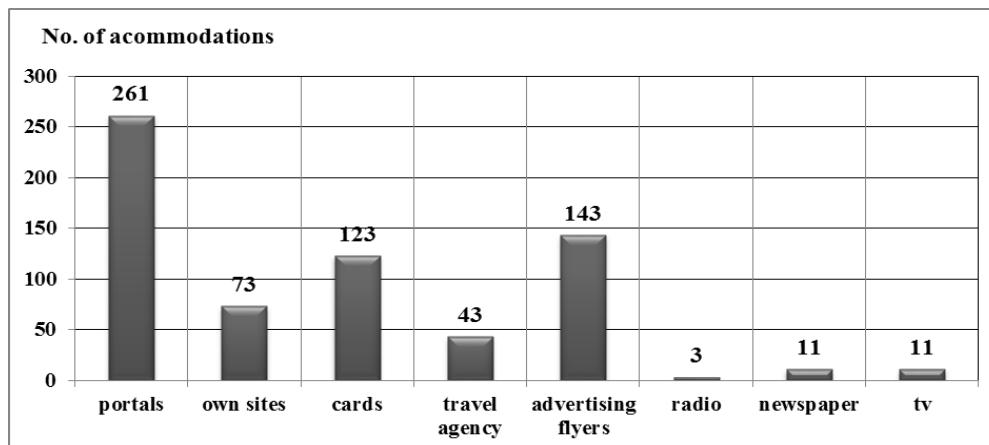
market etc. Therefore, the promotion strategy cannot be worked out without prior knowledge of the target customers, their preferences, and especially of the means by which the information strategy can reach target customers.

The tourism industry must rethink the concept of "tourism" so as to accommodate it to the demands of a highly qualified public. This stems from the fact that the tourist is a demanding client; his demand has numerous motivations and is in a continuous state of change along with the changes in society.

Guesthouse owners are aware of how important promotion is, although it incurs considerable costs. According to the information collected in our field research, we can build up a hierarchy of the promotion means used by rural guesthouses. The most used promotion method is registering the business on portals, followed by the use of print advertisements such as flyers and business cards.

The great advantage of Internet promotion is the ability to store and transmit information through images, text, and sounds, while the costs of using the Internet network are reduced compared with traditional methods of promotion and distribution.

Accommodation units with their own website have a great advantage in promotion. But often, when potential customers use specialized electronic engines to initiate searches, there is a very low probability that such individual sites will be listed.



**Figure 4 - Promotion means used by rural guesthouses in Maramureș**

Source: Made by the authors

This is why guesthouse owners prefer to register on travel portals. In this case, it is necessary to find information on the portals that have a high ranking and appear first on the viewed page. It is recommended that the unit be listed on as many pages as possible and preferably on the first ones, because customers pay more attention to the units listed on the first pages. The information presented here should be as attractive as possible, both as text and as image, and should include contact details, including the website of the unit.

Examples of travel portals listing the accommodation units in Maramureș:

- <http://www.turistinfo.ro>
- <http://www.cazaremaramures.ro>
- <http://www.discover-maramures.com>
- <http://www.pensiuni.info.ro>
- <http://www.pensiune-maramures.ro>
- <http://www.infopensiuni.ro>
- <http://www.turismrural.ro>
- <http://www.pensiuni.org>

The main purpose of these portals is to seek, find and store information from multiple sources, and to make the information accessible to different users. We can find a lot of information on these sites, but making a decision in choosing a travel destination is still a difficult task.

In order to help guide users through this online chaos towards a well-defined purpose, we suggest implementing expert systems within the site. They will offer online assistance to potential customers, who will thus be helped in making decisions. To make the best decisions, one must take into account the specific needs of every user. Expert systems represent the most efficient means of handling such situations. The ability to have sites with "advisors" interacting with the user adds very much to the quality and thoroughness of the recommendations that can be provided.

#### **4. USE OF EXPERT SYSTEMS AS ADVISORS IN CHOOSING TRAVEL DESTINATIONS**

According to Turban et al (Turban, Sharda et al, 2011), expert systems are computer systems that use specialized knowledge to achieve decisions with a high level of accuracy in a particular field.

Studies on a number of expert systems (Nedovic and Devedzic, 2002) have shown that they improve customer satisfaction, as well as product and service quality, and reduce decision making time.

Expert systems can be used in all fields due to their nimbleness and problem solving speed, their ease of use and consultation in the steps followed to reach the optimal decision.

Expert systems consist of two environments: a development environment and a consultation environment. The development environment is used by the system administrators and is continually updated by them with new scientific knowledge from experts in the field, as well as from other sources. Users of the system use the consultation environment to obtain information and in order to solve their specific problems.

According to Turban et al (Turban, Sharda et al, 2011), the steps to be taken in designing expert systems are the following:

- a. Defining the problem;
- b. Acquiring knowledge;
- c. Selecting the system development tool;
- d. Encoding and evaluating the system.

The study of the characteristics of expert systems and the ways of developing them, together with the existence of a database with plenty of information related to accommodation units in Maramureș, led us to the idea of building an expert system with applications in tourism, especially in the promotion of tourism offers.

In designing the system that we suggest to you, we have passed consecutively through the following stages:

*a. Defining the problem:*

This stage involved supplying the exact description of the system functionalities, as follows: evaluate the rural guesthouses in Maramureş; be useful in searching and finding information promptly and efficiently; enable the customer to compare offers and to choose the best option.

*b. Acquiring knowledge*

This stage was aimed at acquiring all the knowledge necessary in order to build conceptual models and the knowledge database.

In order to prepare a complex knowledge database to be included in the system, we used specialised information from experts in tourism, as well as from experts in related fields. We have identified the cases to be solved and the features in use by the expert in making decisions or recommendations.

We used data collected from field research, which were then structured and expressed according to the knowledge representation method and to the features of the inference engine. We set the rules underlying the system, which needed to reflect as accurately and fully as possible the decision-making context. The rules were so expressed as to denote the action to be executed when an event triggers it.

*c. Selecting the system development tool*

In order to build the system, we chose *Corvid* developed by *Exsys* due to the existing facilities in using, implementing, updating, and maintaining this type of systems.

*d. Encoding and evaluating the system*

Encoding supposes undertaking three types of operations: defining variables, building logical blocks and building command blocks (Exsys Inc., 2011).

Encoding was followed by the evaluation of the system. This included assessing and validating the system. These steps were followed to ensure that there were no errors in the encoding stage and to confirm that the system can solve the problem correctly.

The resulting system provides a user-"friendly", easy to use interface. Once implemented in specialized sites, the system is able to facilitate searching and finding the necessary information.

System users will have to fill in an online questionnaire about the financial resources they are willing to allocate, the number of places they need, their preferences concerning the internal and external aspect of guesthouses, their location, etc.

**Figure 5 - The online questionnaire**

Source: Screenshot from the running application

Depending on user options, the expert system will extract from the database the top three guesthouses, ordered by score (which is given by proceeding sequentially through the rules of the logic block), complemented with additional text details. The result also lists contact details for the recommended guesthouses (including the on-line address).



**Figure 6 - System recommendation**

Source: Screenshot from the running application

Expert systems can bring benefits to both system users and system developers.

If we were to draw a list of the benefits of using expert systems for the consumers and suppliers of tourism products, we would include the following:

*a. For the consumers of tourism products:*

- It reduces significantly the search time by quickly obtaining the desired information (accommodation type, service quality, price, tourist animation etc.);
- It offers easier access to knowing the tourist offer;
- It ensures a better agreement between consumer requirements and the actual facilities provided by tourist units;
- It provides a large number of options;
- It offers the possibility of detailed knowledge about tourist objectives with the help of the images on display;
- It cuts down the opportunity costs when choosing a tourist destination (reflected in time, money, quality);
- It helps avoid and eliminate travel intermediaries by establishing a direct link

between the consumers and providers of tourism products. This allows them to purchase the tourist product at a lower price.

b. *For tourism product providers:*

- It provides greater internal and external visibility of their tourism offer;
- It helps attract more easily internal and external potential tourists;
- It ensures continuous adaptation of the tourist offer to the needs of consumers by permanently improving tourist services;
- It enables a permanent adaptation of tourism development strategies through better knowledge of tourist demand (namely customer behaviour and options);
- It helps achieve greater transparency of the tourism market by knowing exactly the types of products on offer and on demand, their quality, as well as the dynamics of demand and supply in tourism;
- It serves to better exploit tourist potential, labour, as well as the capacity of the technical and material means by obtaining higher productivity coefficients;
- It increases the prestige and attractiveness of tourism products by diversifying and building complex tourism services, while it also manages to improve the image of the tourist destination, of the tourist product as a whole, and especially of accommodation units.

Besides the advantages above, there are, nevertheless, some disadvantages of using expert systems on the part of consumers and tourism product providers, as follows:

- *For tourism providers:* increased competition to attract tourists, as well as higher financial efforts to adjust supply to demand in tourism;
- *For consumers:* increased competition to purchase a tourism product.

## 5. CONCLUSIONS

Among other forms of tourism, rural tourism is one of the most flourishing in Maramureş County. Its main attractive characteristics are the following: ancient and unaltered traditions, traditional clothing and specific architecture.

Its long-term development, however, is conditioned by better promotion through various means. One means is registering rural guesthouses on travel portals.

Although these portals are rich in information, it is still difficult and time-consuming to choose a tourist destination among the many possible variants. The reason is that the data volume resulting from visiting portals is very high and diversified, so that making a decision implies comparing several possible alternatives and a series of computations.

In order to simplify decision making, we suggest implementing expert systems into sites for the online support they provide to prospective customers.

Expert systems can play an important role in the evaluation of tourist destinations. By using these systems, one can evaluate tourist destinations according to multiple criteria and obtain information which guides the decision making process. They provide to both customers and tourism providers several advantages presented along the paper.

## BIBLIOGRAPHY

1. Câmpeanu-Sonea, E. (2006) *Managementul firmei prestatoare de servicii în turism*, Editura Risoprint, Cluj-Napoca.
2. Fleşeriu, A. (2001) *Metode și tehnici de turism și comerț*, Universitatea "Dimitrie Cantemir", Facultatea de Științe Economice, Cluj-Napoca.
3. Glăvan, V. (2000) *Turismul în România*, Editura Economică, București.
4. Mureșianu, M. (2010) *Turismul rural și dezvoltarea durabilă a satului românesc contemporan*, Editura Napoca Star, Cluj-Napoca.
5. Nedovic, L., Devedzic, V. (2002) *Expert System in Finance: A Cross-Section of the Field*, Expert System with Application, vol.23, no.1.
6. Stăncioiu, F. (2000) *Strategii de marketing în turism*, Editura Economică, București.
7. Turban, E., Sharda, R., Delen, D. (2011) *Decision Support and Business Intelligence Systems*, 9<sup>th</sup> Edition, New Jersey: Prentice Hall.
8. \*\*\* (2011) Exsys Inc., <http://www.exsys.com>, accessed July 24, 2011.