

## THE USE OF DESTINATION ONLINE REPUTATION MODEL TO EVALUATE A TOURISM DESTINATION. THE CASE OF PODKARPACKIE REGION

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**Abstract:** Understanding Internet users' opinions about a tourism destination (TD) is crucial for destination management organizations (DMOs). The aim of this study is to map the online image of the Podkarpackie Province and the Bieszczady Mountains in Poland as TDs.

Analysis of user-generated content (UGC) gathered through online search engines shows that the majority of subjects addressed online are related to products and services. Both areas taken into consideration in this study – the Podkarpackie Province and the Bieszczady Mountains – are rather willingly and positively commented by internet users.

The study discusses research implications for DMOs in the conclusions section. First of all it seems that the potential of the internet and especially the power of eWOM is not completely used. Tourists should be encouraged and provided with appropriate tools where they could leave comments, write reviews, and upload photographs related to their stay in a given place. Moreover the online dialog should be permanently tracked and monitored by people responsible for destination's image. Besides some common activities, such as web positioning and optimization, analysis of website statistics, as well as undergoing e-tourism trainings should be always undertaken.

**Keywords:** tourism, online reputation, social media, user-generated content (UGC), online content analysis

### Online Reputation of a Tourist Destination in East Central Europe

With the development of new technologies, in particular the Internet, online reputation has become one of the most important factors that determine individual brand and image (Marchiori et al., 2011, March). The above is true

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for all domains of life and human enterprise, including, therefore, tourism. Future tourists usually learn the majority of information about their destination from the Internet. Such information may determine the choice of destination or even motivate tourists to change their previous decision.

According to Sheldon (1997), tourism has always been regarded as a strictly information-based domain. Tourism may also be understood as an experience that needs to be shared (Inversini & Cantoni, 2009). The Internet is today's primary source of information and means of communication. As a result, we can also observe its influence in the chain of values related to tourism during such processes as gathering information, booking and purchasing, reliving memories, and gathering feedback (Marchiori et al., 2011, March). The influence of the Internet is a crucial issue for persons in charge of tourism destinations (TDs) and those responsible for creating the tourism product. As Buhalis (2003) mentions, "The Internet has become the basic means of communicating with potential tourists by Destination Management Organizations" (translated from Polish), or, to put it in the Polish context, regional and local tourism organizations (RLTOs).

A TD can be viewed as a complex structure that constitutes the central reference point for other companies and stakeholders operating within it (Inversini & Cantoni, 2009). It is also a geographical area with the necessary infrastructure that provides all services needed for tourists to arrive and spend their time there. Furthermore, any visitors' experiences will relate to a given TD (Cooper, 1998; Buhalis, 2000). As with all organizations and enterprises, TDs need to be competitive in the market by drawing the client's (in this case, the tourist's) attention and encouraging them to visit. The ways in which RLTOs can achieve these aims include characterizing a given product and demonstrating the benefits of purchasing it, providing special offers, or simply taking advantage of a good brand and reputation of their tourism products (Dowling, 2001).

Reputation may be viewed as the main asset for individuals, companies, organizations, and countries (Inversini, Marchiori, Dedekind, & Cantoni, 2010). According to Solove's definition (2007), reputation is the basic component of identity, the society's opinion formed through the behavior and character of a given enterprise and country. Dowling (2001) adds that due to the inseparable (production and consumption are concurrent) and heterogeneous (clear differences between the provided services due to human factors during the production phase) nature of tourism products, clients choose service providers based on the latter's reputation. For reasons stated above, companies that provide services related to ensuring positive experiences, such as those that operate in the field of tourism, should invest more

resources into developing their own image and reputation, especially in the modern world, where the Internet constitutes the main source of information and thus affects the entire tourism sector (Buhalis, 2003). Therefore, RLTOs should pay special attention to Internet dialogue, as knowing people's opinions about a given destination may significantly contribute to the destination's future development and provide a means of encouraging more tourists to visit.

This study is an attempt at analyzing online opinions about the Podkarpackie Province in Poland with respect to tourism. To achieve this aim, we focused on user-generated content (UGC)—that is, content created by Internet users and published in social media—and formulated the following secondary aims: (a) to assess the current opinions about the Podkarpackie Province on the Internet, (b) to identify the main problems related to online reputation and image, and (c) to suggest potential solutions and adjustments with the goal of eliminating the identified problems.

We posed three research questions in order to analyze online comments and opinions about the Podkarpackie Province as a tourism destination: What types of websites do Internet users find when using online search engines? What are the opinions expressed in the analyzed content? And do the addressed subjects and opinions vary depending on keywords used to search for them?

The article is divided into five sections. Section 2 describes such terms as Web 2.0, social media, electronic whisper, and destination management organizations based on subject literature. Section 3 presents the research project, including the case study of the Podkarpackie Province, by providing basic information about the region, especially in terms of tourism. Furthermore, the section describes the research methodology. Section 4 presents the results of the analysis. Finally, section 5 contains research implications for the tourism sector and suggestions for future studies.

## **Theoretical Framework of the Study**

### **Web 2.0 and social media.**

Today, in the age of information and communication technology (ICT), the phenomenon of Web 2.0 becomes prominent (O'Reilly, 2005). This means that information available online comes from official as well as unofficial webpages (Anderson, 2006). These two types of sources provide almost identical information and compete with each other for the attention of the end user—the viewer (Inversini & Buhalis, 2009).

Official pages, called Web 1.0, usually comprise services, companies, and so forth that present their offer, sell products, or integrate business processes (Cantoni & Di Blas, 2002). Web 2.0 sites, also called *social media*, can be understood in general as online applications that allow individual users to create, share, and archive information (experiences, feelings, and emotions), referred to in short as *user-generated content* (UGC) (Inversini et al., 2010). Thus, we can also interpret Web 2.0 as a type of public venue for the exchange of information (Cantoni & Tardini, 2010). Another appropriate term is the *read and write web* (Nicolas et al., 2007), whereby the end user of information combines the roles of its receiver, intermediary, and supplier (Buhalis, 2003).

UGC can be extremely useful and helpful from a tourist's point of view, as it addresses practically all stages of a tourist trip (Gretzel et al., 2006): (a) before departure (e.g., selecting a service and purchasing it or gathering information about the course of travel), (b) during the stay (e.g., up-to-date information about events and recommended venues), and (c) after the trip (e.g., memories and sharing experiences) (Marchiori et al., 2011).

### **Electronic word of mouth and destination management organizations.**

Social media allow users to distribute what is called the *electronic word of mouth* (eWOM) (Litvin, Goldsmith & Pan, 2008); another popular term is *word of mouse*, meaning the computer mouse. As Blackshaw and Nazzaro (2006) put it, eWOM is “a mixture of fact and opinion, impression and sentiment, founded and unfounded tidbits, experiences, even rumors.”

Some marketing managers and scientists try to use eWOM in promotional actions (Litvin et al., 2008). Such initiatives, including online promotion and creating the brand using eWOM and UGC, are becoming more and more popular. For instance, “the strategy of using blogs as an information channel involves communication, promotion, and distribution of the product as well as research and management” (translated from Polish, Schmallegger & Carson, 2008, pp. 99–110).

Many tourists consider UGC and eWOM the most reliable, up-to-date, and friendly source of information, especially in terms of buying tourism services and products that are by nature intangible and based on individual experiences (Gretzel, Hyan-Hoo, & Purifoy, 2007). Potential tourists, if they

have never been to a given TD, facilitate planning a trip and making decisions about it by browsing the Internet for opinions of those who have already visited the destination (Litvin et al., 2008).

As Solove (2007) observes, “it is impossible to prevent people from making judgments” (translated from Polish). Moreover, today TDs face challenges not only from their competitors, but also from the so-called information competitors (Inversini & Buhalis, 2009). However, tourism managers should be aware of Internet users’ opinions and at the same time try to manage an increasing amount of UGC (Inversini et al., 2009). This is a demanding task and a growing challenge especially for RLTOs that manage a given region’s brand (Li, Pan, & Zhang, 2009).

### **Destination management organizations and online image.**

When UGC aggregates, it creates eWOM, which in turn contributes to building the online reputation of a given TD (Marchiori et al., 2011). In turn, reputation is strictly related to the notion of the image and brand of a TD.

As was mentioned above, tourists choose their travel destination mainly on the basis of its reputation. For this reason, organizations that operate in the field of tourism should pay special attention to developing the image of their respective regions (Dowling, 2001). Kotha, Rajgopal, and Rindova (2001) add that building the value of a brand is among the most important determinants of success for Internet-based companies. RLTOs can be considered such companies because they use the Internet for actions aimed at creating the brand and a positive image of areas they represent. RTLOs should therefore be aware of the current online image of their respective TDs as well as have the skill to shape and develop it.

This need is tied to the notion of place branding, which Govers and Go (2009) define as a marketing activity aimed at eliciting pleasant memories related to one’s experiences in a given area in order to create an image that can influence the client’s (the tourist’s) decision to travel to that particular area instead of any other destination. In the age of the Internet and UGC, eWOM constitutes the dominant means of sharing opinions, experiences, and emotions related to one’s stay in a given destination, all of which consequently build the image of the destination. For the aforementioned reasons, using this form of marketing to build a strong, clear brand of TDs is extremely important, especially for persons in charge of them.

## Research Project

### Podkarpackie Province and the Bieszczady Mountains.

This analysis concerns the Podkarpackie Province in Poland. The region is located in the southeastern part of Poland, bordered by Ukraine to the east and Slovakia to the south. The administrative capital of the province and its largest city is Rzeszów. The area of the province is 17,845 km<sup>2</sup> and its population amounts to 2,101,000 (Podkarpackie Province Office in Rzeszów, 2012).

This study, apart from the Podkarpackie Province as an administrative unit, distinguishes the Bieszczady Mountains as the province's most popular tourism area. The Bieszczady Mountains attract visitors with their natural, cultural, and landscape values as well as numerous forms of active leisure (Podkarpackie Province Office in Rzeszów, 2012).

Based on the *Nawigator turystyczny* guidebook for tourists (2009), three main groups of tourist attractions in the province can be named:

1. Natural heritage: two main mountain ranges run in the region, the Bieszczady Mountains and the Low Beskid, in which national parks have been created (the Bieszczady National Park and the Magura National Park).
2. Cultural heritage, represented first and foremost by tradition and historical monuments, such as castles in Baranów Sandomierski, Łańcut, and Krasiczyn; historical towns, such as Przemyśl, Sanok, Jarosław, and Krosno; and numerous wooden Catholic and Eastern Orthodox churches.
3. Sports and recreation infrastructure, such as facilities available by the Lake Solina that offer water sports (e.g., sailing and canoeing) or simply an opportunity for recreation by the lake. Moreover, the Bieszczady Mountains are a good venue for gliding, paragliding, hang gliding, and parachute jumping as well as fishing and hunting. Slopes with ski lifts are available in winter, for instance, in Ustrzyki Dolne.

Because the aforementioned tourist attractions are considered the most important in the Podkarpackie Province, we can expect them to be broadly commented about on UGC websites. Therefore, topics related to these tourist attractions, found through search engines, were analyzed in terms of both number of occurrences and the expressed opinions.

### Destination online reputation model (DORM) for classifying online content.

The analysis presented in this study was conducted based on the destination online reputation model (DORM), which enables researchers to

assess the online reputation of a given TD and is used by Webatelier.net, a laboratory of the Department of Communication Sciences at the University of Lugano, Switzerland.

This tool enables a partially automated analysis of information about a given TD, collected by online search engines from UGC websites. The process allows researchers to characterize the online reputation of the TD. The DORM structure was developed on the basis of two models presented by the Reputation Institute: the reputation quotient and RepTrak (2006), with Webatelier.net subsequently adapting the structure for the purposes of tourism. DORM has been defined thanks to a thorough literature analysis, surveys, interviews, and focus groups that involved experts on tourism and tourists themselves (Inversini et al., 2010).

**Table 1.** DORM Categories and Drivers

Categories	Code	Tourist Destination Drivers
<b>Products and services</b> (accommodation, food and drinks, attractions, active recreation, entertainment, events, availability and transport, infrastructure and amenities, other)	d1	Offers an attractive tourism product
	d2	Offers a pleasant atmosphere
	d3	Offers products and services that are good value for money
	d4	Presents accurate information about its products and services
<b>Society</b>	d5	Offers interesting local culture and traditions
	d6	Has hospitable residents
<b>Management</b>	d7	Organizations and the tourism sector cooperate in the TD
	d8	Presents innovative and/or improved products and services
<b>Environment</b>	d9	Shows high ecoawareness
	d10	Weather is favorable
	d11	Offers a safe environment
<b>Meeting expectations</b>	d12	Presents an accurate image
	d13	Meets my expectations
	d14	Offers a satisfactory tourism experience

Note. Marchiori et al. (2011).

The model consists of 5 categories, 9 subcategories within the products and services category, and 14 so-called *drivers* (Marchiori et al., 2011) (Table 1).

Content analysis is based on a list of searched-for keywords and takes into account the first three pages of results from selected online search engines (i.e., the first 30 URL addresses). In the next stage, the researcher (coder) analyzes each generated website manually. The analysis focuses primarily on UGC websites. The final stage involves presenting the results in the form of charts and interpreting the acquired data.

This project analyzed a total of 850 URLs generated by Google.com, YahooSE, and Bing.com search engines. The analysis was based on four groups of keywords related to the Podkarpacie (the Podkarpackie Province) as the main research area and Bieszczady (the Bieszczady Mountains) as

**Table 2.** Keywords Used for Analysis

Group of keywords	List of keywords
Bieszczady (English)	visit Bieszczady, Bieszczady restaurants, Bieszczady attractions, Bieszczady holiday, Bieszczady tourism, Bieszczady accommodation, Bieszczady activities
Bieszczady (Polish)	Bieszczady turystyka, Bieszczady pobyt, Bieszczady atrakcje, Bieszczady aktywny wypoczynek, Bieszczady restauracje, Bieszczady wakacje, Bieszczady zakwaterowanie
Podkarpacie (English)	visit Podkarpacie, Podkarpacie restaurants, Podkarpacie activities, Podkarpacie attractions, Podkarpacie tourism, Podkarpacie holiday, Podkarpacie accommodation
Podkarpacie (Polish)	Podkarpacie restauracje, Podkarpacie pobyt, Podkarpacie aktywny wypoczynek, Podkarpacie turystyka, Podkarpacie zakwaterowanie, Podkarpacie wakacje, Podkarpacie atrakcje

Note. Own design based on Inversini et al. (2010)

the most popular TD in the province. Seven secondary keywords were added to the above two keywords (“Podkarpacie” and “Bieszczady”). All keywords including secondary keywords were entered into the system in Polish and English, hence the analysis of Polish and English websites. Table 2 is the final list of selected keywords.

The first three pages of results from each search engine and for each key word were included in the analysis (i.e., the first 30 URLs). After automatically selecting a list of URLs and eliminating redundant results, the coder was able to begin the analysis proper.

### **Analysis of website content.**

The first step of the analysis involved identifying URLs using the reputation codebook (Inversini et al., 2009) and the DORM structure. The coder's task was to classify a given website as UGC, non-UGC, not relevant, or not working. The coder was then asked to select several detailed pieces of information from the available options.

1. For UGC websites:

- Language
- Type of media:
  - Virtual communities (e.g., Lonely Planet, IgoUgo.com, and Yahoo Travel);
  - Client reviews (e.g., Tripadvisor.com);
  - Blogs and microblogs (e.g., personal blogs and blogspot);
  - Social media (e.g., Facebook and Myspace);
  - User-shared media (photo- and video-sharing services, e.g., Flickr and YouTube);
  - Wikis (e.g., Wikipedia, Wikitravel); or
  - Other.
- Categories of reputation:
  - Products and services (with nine subcategories: accommodation, food and drinks, attractions, active recreation, entertainment, events, availability and transport, infrastructure and amenities, and other);
  - Society;
  - Management;
  - Environment;
  - Meeting expectations; or
  - NA.

Next, the coder was asked to assess opinions expressed on target websites in the following way: NA (not applicable), NF (opinion not found), 1 (negative feelings), 2 (more negative than positive feelings), 3 (negative as well as positive feelings), 4 (more positive than negative feelings), or 5 (positive feelings).

2. For non-UGC websites:

- Language
- Branch of tourism industry (selected from a list of companies and institutions related to tourism)
- Opinion: NA (not applicable), NF (opinion not found), 1 (negative feelings), 2 (more negative than positive feelings), 3 (negative as well as positive feelings), 4 (more positive than negative feelings), or 5 (positive feelings).

## Results

### Types of Websites Found via Online Search Engines

Among the 850 analyzed URLs, 18.8% (160 websites) were classified as UGC. Two types of top domains were distinguished: general domains and UGC domains (Tables 3 and 4).

**Table 3.** Top General Domains

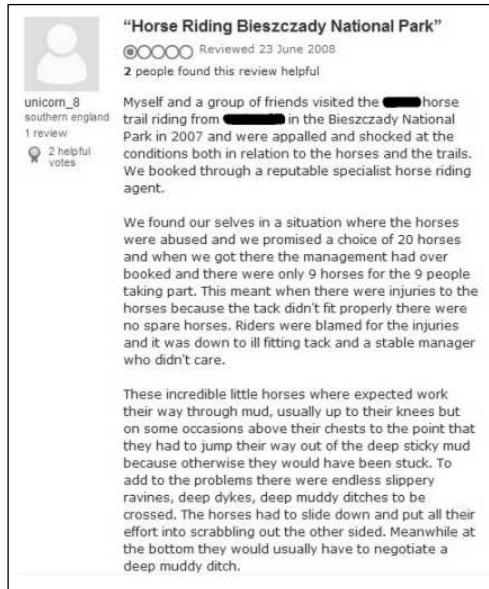
General domain	Domain	Number of results (websites)
1	<a href="http://www.virtualtourist.com">http://www.virtualtourist.com</a>	19
2	<a href="http://www.youtube.com">http://www.youtube.com</a>	17
3	<a href="http://www.slonecznebieszczady.pl">http://www.slonecznebieszczady.pl</a>	17
4	<a href="http://www.bieszczady.net.pl">http://www.bieszczady.net.pl</a>	14
5	<a href="http://www.podkarpacie.info">http://www.podkarpacie.info</a>	12
6	<a href="http://www.facebook.com">http://www.facebook.com</a>	11
7	<a href="http://www.maplandia.com">http://www.maplandia.com</a>	11
8	<a href="http://secure.hospitalityclub.org">http://secure.hospitalityclub.org</a>	8
9	<a href="http://www.lonelyplanet.com">http://www.lonelyplanet.com</a>	7
10	<a href="http://www.si.podkarpacie.pl">http://www.si.podkarpacie.pl</a>	7

Note. Own design based on Inversini et al. (2009). Domains were accessed on September 9, 2011.

**Table 4.** Top UGC Domains

UGC domain	Domain	Number of results (websites)
1	<a href="http://www.virtualtourist.com">http://www.virtualtourist.com</a>	19
2	<a href="http://www.youtube.com">http://www.youtube.com</a>	17
3	<a href="http://www.facebook.com">http://www.facebook.com</a>	11
4	<a href="http://secure.hospitalityclub.org">http://secure.hospitalityclub.org</a>	8
5	<a href="http://www.lonelyplanet.com">http://www.lonelyplanet.com</a>	7
6	<a href="http://www.addictedtotravel.com">http://www.addictedtotravel.com</a>	5
7	<a href="http://en.wikipedia.org">http://en.wikipedia.org</a>	4
8	<a href="http://www.mapofpoland.net">http://www.mapofpoland.net</a>	4
9	<a href="http://www.tripadvisor.co.uk">http://www.tripadvisor.co.uk</a>	3
10	<a href="http://www.holidaycheck.pl">http://www.holidaycheck.pl</a>	3

Note. Own design based on Inversini et al. (2009). Domains were accessed on September 9, 2011.



**Figure 1.** Example of a negative review at TripAdvisor. Retrieved September 10, 2011, from [http://www.tripadvisor.co.uk/Attraction\\_Review-g274753-d286091-Reviews-Bieszczady\\_National\\_Park-Southern\\_Poland.html](http://www.tripadvisor.co.uk/Attraction_Review-g274753-d286091-Reviews-Bieszczady_National_Park-Southern_Poland.html).



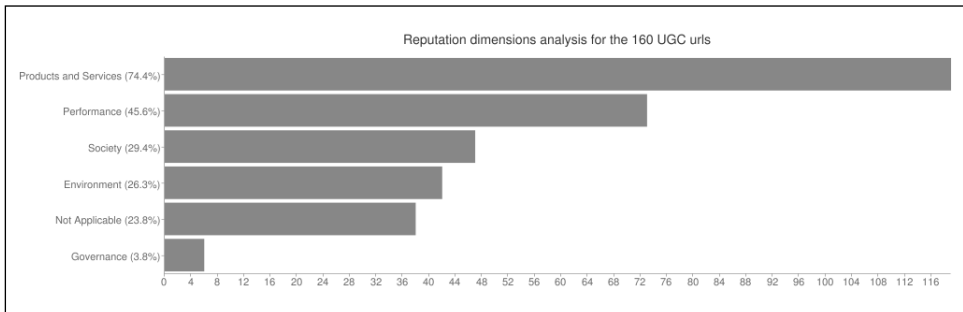
**Figure 2.** Example of a positive review at Virtual Tourist. Retrieved September 10, 2011, from [http://www.virtualtourist.com/hotels/Europe/Poland/Bieszczady-505556/Hotels\\_and\\_Accommodations-Bieszczady-TG-C-1.html](http://www.virtualtourist.com/hotels/Europe/Poland/Bieszczady-505556/Hotels_and_Accommodations-Bieszczady-TG-C-1.html).

The tables presented above show that such domains as VirtualTourist.com, YouTube.com, and Facebook.com belong to UGC. Further analysis related to types of media indicates that virtual communities, such as Virtual Tourists, have the highest percentage share (43.8%), followed by user-shared media such as YouTube (21.9%), client reviews such as TripAdvisor (15%), social media such as Facebook (8.1%), wikis (5.6%), and blogs and microblogs (5%). Only 0.6% of websites were classified as other.

### Feelings expressed in the UGC.

Among 160 UGS websites, content classified under the products and services category amounts to 74.4% and mostly relates to accommodation and tourist attractions. The remaining categories are meeting expectations (45.6%), society (29.4%), environment (26.3%), and management (3.8%). Websites marked as not applicable—that is, those topically related to tourism and the Podkarpackie Province but with not enough content for analysis (e.g., UGC websites that allow users to post a comment but on which this feature was not used yet)—amount to 23.8%.

Note that a great part of the online content belonged to more than one category, which is why the total percentage exceeds 100% (Figure 3).



**Figure 3.** Number of occurrences of individual categories. Chart obtained using a tool for online reputation analysis created based on DORM (Inversini et al., 2010).

To present user opinions, all 14 drivers (Table 1) that corresponded to the five categories were rated on a scale from 1 to 5 according to comments found on UGC websites.

**The results in individual categories were as follows:*****Products and services.***

Three dominant subcategories were observed within this category: attractions (44.5%), active recreation (21%), and accommodation (20.2%). The food and drinks subcategory corresponded to 5.9% websites, while only a few websites each belonged to other subcategories.

The mean rating of the products and services category can be divided into two groups of drivers:

- Drivers d1 and d2 received a high rating and the results can be regarded satisfactory;
- Drivers d3 and d4 were unsatisfactory and require improvement (especially the active recreation subcategory).

The most popular topics inside this category comprise those related to recommended venues, such as towns, villages, and historical monuments in the Podkarpackie Province such as wooden Catholic and Eastern Orthodox churches. These venues received an overall positive rating. Internet users also post their opinions about tourist trails as well as (to a lesser extent) other attractions such as horse riding (which has been criticized on TripAdvisor) and parachute jumping.

Furthermore, there are many videos and slide shows available online, mainly on YouTube, that constitute a souvenir from and a memory of vacation by themselves. These videos and images primarily show the Bieszczady Mountains, the Solina Lake and Dam, and mountain hikes. Opinions about hotels are usually positive and in the majority refer to less-known hotels, mainly in Rzeszów. UGC websites also include many positive comments about available rural tourism cottages, guest houses, and mountain shelters, primarily in the Bieszczady Mountains.

***Society.***

Opinions related to the society category were rated as positive (between 4.5 and 5.0). Tourists are fond of the local culture and tradition (that is, historical monuments, regional cuisine, and cultural events), as well as the residents' hospitality. However, it should be noted that visitors who commented on the residents' hospitality almost always did so in respect to persons with whom they had direct contact—that is, hotel staff, rural tourism cottage owners, and so forth.

***Management.***

Even though this category is the least commented on, the comments received the highest rating (5.0). In addition, the fact that there are few websites with opinions about the cooperation between the tourist industry and organizations and about innovations concerning products and tourism services may indicate that Internet users seldom comment about issues related to managing TDs or that the aforementioned phenomena are less frequent.

***Environment.***

Internet users consider the Podkarpackie Province clean and rich in natural values. This opinion primarily applies to the Bieszczady Mountains. Many users talk about the clean air and water and about the peacefulness, quiet, and the unspoilt character of the natural environment in the province. This is why the d9 driver, related to ecoawareness, has a high mean value (4.8). The d11 driver, related to safety, received a rating of 3.8, and the weather factor received a rating of 4.0.

***Meeting expectations.***

The meeting expectations category, as a measure of the overall tourist satisfaction and feelings following a visit to the Podkarpackie Province, also received a high rating (between 4.0 and 4.5). From a tourist's perspective, the region ensures a satisfactory tourism experience and presents an accurate image as a TD. The Bieszczady Mountains, thanks to their unique, isolated, and wild character, have an especially persistent and clear image in the view of visitors. The d13 driver, related to the congruency between expectations and the actual state of the region, received a high rating as well. However, some reviews complain that such a unique region as the Bieszczady Mountains is becoming increasingly commercialized, thus losing its special image.

**Comparison of obtained results according to keywords used.**

The preceding table shows results (mean ratings on a 5-point scale) obtained during analysis in relation to four groups of keywords that pertained to all five categories. The greatest differences between the results were observed in the products and services category, especially for the d3 (offers products and services that are good value for money) and d4 drivers (presents accurate information about its products and services). In addition, these two drivers received the lowest ratings, primarily in the Podkarpackie Polish keywords and Bieszczady English keywords groups. A detailed analy-

**Table 5.** Results by Groups of Keywords, Categories, and Drivers

Categories and drivers		Podkarpa- cie – English keywords	Podkarpa- cie – Polish keywords	Bieszczady – English keywords	Bieszczady – Polish keywords
Products and services	d1	4.2	4.5	4.0	4.6
	d2	4.4	4.7	4.4	4.8
	d3	4.2	3.5	3.3	4.3
	d4	3.0	3.3	2.3	5.0
Society	d5	4.8	5.0	5.0	5.0
	d6	4.3	4.7	4.3	5.0
Manage- ment	d7	5.0	–	–	–
	d8	5.0	5.0	–	5.0
Environ- ment	d9	4.5	5.0	4.7	5.0
	d10	4.0	4.5	3.8	5.0
	d11	5.0	4.5	3.3	4.7
Meeting ex- pectations	d12	3.9	4.0	4.5	4.6
	d13	4.3	4.3	3.6	4.4
	d14	4.2	4.3	4.4	4.9

Note. Own design based on Inversini et al. (2010).

sis indicates that the situation described above was mainly due to negative ratings in the active recreation, attraction, and accommodation subcategories within the first three groups of keywords related to the aforementioned drivers (d3 and d4).

Other categories show relative consistency, except environment (d10 and d11) and meeting expectations (d13) within the Bieszczady English keywords group. Ratings in these categories are also considerably lower than average.

The aforementioned differences between the Bieszczady English keywords and Bieszczady Polish keywords groups are especially interesting and most prominent in the case of d4, d10, and d11 drivers. These three drivers indicate that online comments in English are more critical than comments in Polish. This is caused to a great extent by a negative review of horseback tourism in the Bieszczady Mountain, which appeared several times in search results and lowered the mean rating for the entire group of keywords.

Taking into account the results presented in Table 5, we may observe that the Bieszczady English keywords group contains the lowest ratings.

## Conclusion

The results of the research conducted show that eWOM plays an important role in shaping the general opinion about and image of a given TD—in this case, the Podkarpackie Province. Out of all the websites collected using three popular search engines (Google.com, YahooSE, and Bing.com), almost 20% were classified as UGC. Most categories analyzed received a positive rating. However, we identified several indicators that showed certain flaws and missing features within the image of the province as a TD that should be taken into account.

In relation to the expected results related to the main tourist attractions in the region, distinguished in the introduction, we may state that the attractions are noticeable and commented about online. In general, Internet users appreciate the uniqueness and diversity of the Podkarpackie Province, its natural environment and rich culture and history, and the residents' hospitality (especially in the case of rural tourism), as well as the fact that the province is clean. Comments can be found that address the beauty of castles, cottages, and churches in the province and the opportunities for active recreation, both in winter and in summer.

The Bieszczady Mountains are viewed first and foremost from the perspective of their wild character, distinctive atmosphere, and landscapes. Some Internet users are concerned about the permanence of these values and indicate the growing number of tourists as the reason for their deterioration.

A good solution for tourism companies and persons directly responsible for shaping the image of a TD is positioning and optimizing websites—for instance, through backlink campaigns and various other types of promotional actions online (such as using sponsored links)—to improve the destination's online appearance and secure a position within the top results in search engines. An analysis of website statistics (e.g., through Google Analytics) should be employed to support these actions. In addition, employees should undergo e-tourism training.

Another problem observed during the research is the fact that information about tourism offers, especially offers provided by small and medium companies in the Podkarpackie Province, is very similar. For instance, rural tourism cottages in the Bieszczady Mountains very frequently advertise their offer in the same manner. In today's age, this may not be enough.

Using the power of eWOM is one of the best ways to encourage potential tourists to visit a given destination through the support of persons who have already visited it. Entrepreneurs, managers, and representatives of RLTOs should encourage satisfied tourists to leave comments,

write reviews, and upload photographs related to their stay in a given TD. To achieve this aim, appropriate platforms and tools of Web 2.0 should be made available that allow tourists to express their opinions and share their experiences online.

Furthermore, decision makers and representatives of the tourism industry should keep constant track of eWOM to learn which aspects of a TD's image and brand are at an appropriate level and which require improvement. Internet dialogue can also be used to identify subjects and aspects that users do not comment on and that may require more attention and intervention on the part of the managers, such as the issue of innovation and cooperation between organizations and the tourist industry.

As far as limitations of this study are concerned, we should emphasize that content analysis is always subjective to some extent and depends on the coder's interpretation. For the reasons presented above, actions aimed at increasing the level of intercoder reliability are constantly being undertaken and will find application in future research.

Moreover, content analysis remains extremely demanding, which is why input and support from partially automated tools of reputation analysis can prove very beneficial for future studies.

## References

- Anderson, C. (2006). *The long tail: Why the future of business is selling less of more*. New York: Hyperion.
- Blackshaw, P., & Nazzaro, M. (2006). *Consumer-generated media (CGM) 101: Word-of-mouth in the age of the web-fortified consumer*.
- Buhalis, D. (2000). Marketing the competitive destination of the future. *Tourism Management*, 21(1), 97–116.
- Buhalis, D. (2003). *eTourism: Information technology for strategic tourism management*. Harlow: Prentice Hall.
- Cantoni, L., & Di Blas, N. (2002). *Teorie e pratiche della comunicazione*. Milan: Apogeo.
- Cantoni, L., & Tardini, S. (2010). The internet and the web. In D. Albertazzi & P. Cobley (Eds.), *The media: An introduction* (3rd ed., pp. 220–232). New York: Longman.
- Cooper, C., Fletcher, J., Gilbert, D., Shepherd, R., & Wanhill, S. (Eds.). (1998). *Tourism: Principles and practices* (2nd ed.). Harlow, England: Addison Wesley Longman.
- Dowling, G. (2001). *Creating corporate reputations. Identity, image, and performance*. Oxford: Oxford University Press.

- Govers, R., & Go, G. (2009). *Local, virtual and physical identities, constructed, imagined and experienced*. London: Palgrave Macmillan.
- Gretzel, U., Fesenmaier, D. R., & O’Leary, J. T. (2006). The transformation of consumer behaviour. In D. Buhalis, & C. Costa (Eds.), *Tourism business frontiers* (pp. 9–18). Amsterdam: Elsevier.
- Gretzel, U., Hyan-Hoo, K., & Purifoy, M. (2007). *Online review travel study: The role and impact of online travel reviews*. Retrieved from <http://www.rpts.tamu.edu/list/research/Online%20travel%20reviews%20study.pdf> (12/14/2012)
- Inversini, A., & Buhalis, D. (2009). Information convergence in the long tail: The case of tourism destination information. In W. Hopken, U. Gretzel, & R. Law (Eds.), *Information and communication technologies in tourism 2009—Proceedings of the International Conference in Amsterdam, Netherland* (pp. 381–392). Vienna: Springer.
- Inversini, A., & Cantoni, L. (2009). Cultural destination usability: The case of Visit Bath. In W. Hopken, U. Gretzel, & R. Law (Eds.), *Information and communication technologies in tourism 2009—Proceedings of the International Conference in Amsterdam, Netherlands* (pp. 319–331). Vienna: Springer.
- Inversini, A., Cantoni, L., & Buhalis, D. (2009). Destination’s information competition and web reputation. *Journal of Information Technology & Tourism*, 11 (2009), 221–234.
- Inversini, A., Marchiori, E., Dedekind, C., & Cantoni, L. (2010). Applying a conceptual framework to analyze online reputation of tourism destinations. In U. Gretzel, R. Law, & M. Fuchs (Eds.), *Information and communication technologies in tourism 2010: Proceedings of the International Conference in Lugano, Switzerland, February 10–12, 2010* (pp. 321–332). Vienna: Springer.
- Kaliński, T. (Ed.). (2009). *Nawigator turystyczny*. Warsaw, Poland: Carta Blanca (Grupa Wydawnicza PWN).
- Kotha, S., Rajgopal, S., & Rindova, V. (2001). Reputation building and performance: An empirical analysis of the top 50 pure internet firms. *European Management Journal*, 19(6), 571–586.
- Li, X., Pan, B., & Zhang, L. (2009). The effect of online information search on image development. *Journal of Travel Research*, 48(1), 45–57.
- Litvin, S. W., Goldsmith, R. E., & Pan, B. (2008). Electronic word-of-mouth in hospitality and tourism management. *Tourism Management*, 29, 458–468.
- Marchiori, E., Inversini, A., Cantoni, L., & Da Col, S. (2011, March). *Classifying online conversations about tourism destinations: A tourist perspective*. Paper presented at the Thought Leaders International Con-

- ference in Brand Management, Lugano, Switzerland. Retrieved from: <http://www.brand-management.usi.ch/pag/conferencetracksday2.html#session6>
- Marchiori, E., Eynard, D., Inversini, A., Cantoni, L., & Carretti, F. (2011). Harvesting online contents: An analysis of hotel reviews websites. In R. Law, M. Fuchs, & F. Ricci (Eds.), *Information and communication technologies in tourism 2011. Proceedings of the International Conference in Innsbruck, Austria, January 26–28, 2011* (pp. 101–112). Vienna: Springer.
- Nicholas, D., Huntington, P., Jamali, H. J., & Dobrowolski, T. (2007). Characterizing and evaluating information seeking behavior in digital environment: Spotlight on the bouncer. *Information Processing and Management*, 43(4), 1085–1102.
- O'Reilly, T. (2005). *What is web 2.0*. Retrieved from: <http://www.oreil.lynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html> (12/14/2012)
- Schmallegger, D., & Carson, D. (2008). Blogs in tourism: Changing approaches to information exchange. *Journal of Vacation Marketing*, 14(2), 99–110.
- Sheldon, P. J. (1997). *Tourism information technology*. New York: Cab International.
- Solove, D. J. (2007). *The future of reputation: Gossip, rumour, and privacy on the internet*. London: Yale University Press.
- Website of the Podkarpackie Province Office in Rzeszów. Retrieved from <http://rzeszow.uw.gov.pl/wojewodztwo-podkarpackie/o-regionie.html> (12/14/2012)
- Website of the Podkarpackie Province Office in Rzeszów. Retrieved from <http://rzeszow.uw.gov.pl/wojewodztwo-podkarpackie/atracje-turystyczne/bieszczady.html> (12/14/2012)