INTERNET – AN AGENT OF TOURISM DESTINATION IMAGE FORMATION: CONTENT AND CORRESPONDENCE ANALYSIS OF ISTRIA TRAVEL RELATED WEBSITES

Danijela Križman Pavlović, Ph. D., Assistant Professor
Juraj Dobrila University of Pula
Department of Economics and Tourism "Dr. Mijo Mirković"
Preradovićeva 1, 52 100 Pula, Croatia
Phone: +385 52 377 032
Fax: +385 52 216 416
E-mail: dkrizman@efpu.hr

Alen Belullo, Ph. D., Assistant Professor
Juraj Dobrila University of Pula
Department of Economics and Tourism "Dr. Mijo Mirković"
Preradovićeva 1, 52 100 Pula, Croatia
Phone: +385 52 377 048
Fax: +385 52 216 416
E-mail: abelul@efpu.hr

Key words: tourism destination, destination image, Internet, Istria, content analysis, correspondence analysis, Worder, Hamlet II.

1. INTRODUCTION

Tourism destination image has been an area of researchers' interest for more than 30 years primarily due to its complex conceptual nature and its important role in influencing tourist decision making. Destination images are derived from a wide spectrum of information sources, including Internet. Increased number and variety of on-line information about the tourism destinations introduced new challenges to achieving effective destination marketing.

Research of Internet as an image formation agent is still in its infancy. Thus, this study attempts to: (a) determine the importance of managing and delivering desired destination image on-line; (b) identify the image representations of Istria as tourism destination on the Internet by analyzing and comparing the narrative and visual contents of a variety of web information sources (official tourism website of Istria, tour operators and travel agents' websites, online travel magazine and guide websites, and on-line travel blogs).

The paper begins with theoretical analysis of tourism destination image. Follows the argument about significance of Internet as tourists' source of information. Accordingly, emphasized is the role of Internet as an agent in tourism destinations image formation. Finally, presented are content and correspondence analyses of Istria travel related websites conducted in this paper.

Results of this research promote better understanding of the multiplicity of destination image representations on the web and the challenges of managing the destination image on-line.

2. TOURISM DESTINATION IMAGE – DEFINITION, IMPORTANCE AND FORMATION PROCESS

Some early works (Boulding, 1956; Martineau, 1958) suggested that human behavior is dependent upon image rather than objective reality. Since then, image concept found its wide application in marketing theory and practice. Image is generally defined as a mental or attitudinal construct developed on the basis of a few selected impressions from among the flood of total impressions through a creative process in which those selected are elaborated, embellished and ordered (Reynolds, 1965).

Tourism destination image has been an area of researchers' interest for more than 30 years[1]. Despite this, many agree that the majority of studies carried out to date are insufficiently theory-based, resulting in a lack of framework or solid conceptualization (Beerli, Martin, 2004a). Some reasons for that are (Gallarza, Saura, Garcia, 2002): 1) Complexity and multidimensionality of tourism product; 2) Destination marketing involves the consumer physically to moving to the behavior scenario; 3) Great subjectivity in providing a tourism service: images are mixed with impressions about residents, retailers, other tourists, and/or employees; 4) The intangibility of tourism service hinders image assessment as it depends on invisible elements of pre-visit selection and a pre-taste of the destination.

While the definition of tourism destination image varies among scholars, it is generally referred to as "an attitudinal concept consisting of the sum of beliefs, ideas and impressions that a tourist holds of a destination" (Crompton, 1979). The study by Gallarza, Saura, Garcia (2002) featured an exhaustive review of the literature dealing with the concept of "destination image", proposing a theoretical model defining image in terms of four characteristics: complex (it is not unequivocal), multiple (in elements and processes), relativistic (subjective and generally comparative) and dynamic (varying with the dimensions of time and space).

The importance of the tourism destination's image is universally acknowledged, since it affects the tourist behavior in many ways (Baloglu, McCleary, 1999; Echtner, Ritchie, 1991; Fakeye, Crompton, 1991; Woodside, Lysonski, 1989). First of all, it affects the choice of holiday destination. Based on the fact that tourists usually have a limited knowledge of tourism destination they have not previously visited, image fulfils an important function insofar as tourism destinations with stronger, positive and recognizable images have more probability of being chosen by the tourist. Second, it influences after-decision behavior, i.e. tourist satisfaction and intention to repeat the visit in the future. After a vacation, people form opinions on tourism destination's capacity to provide experiences that correspond with their needs and fit the image they had of the destination.
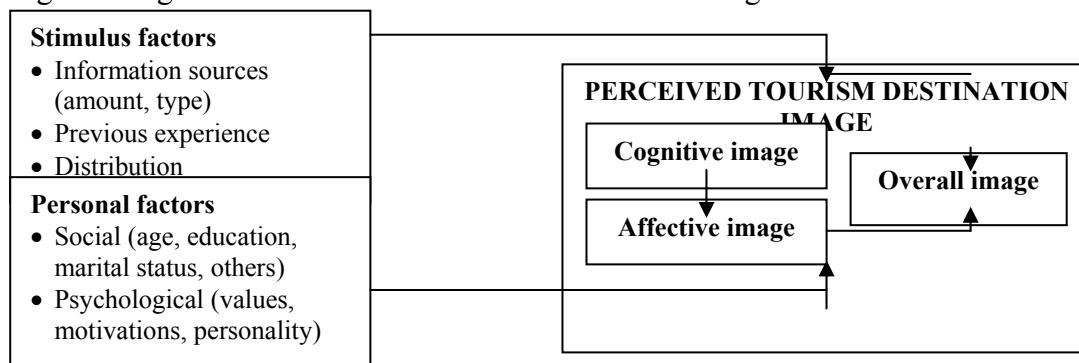
The most recent studies (Baloglu, Brinberg, 1997; MacKay, Fesenmaier, 1997; Walmsley, Young, 1998; Baloglu, McCleary, 1999) support the view that tourism destination image is a composite construct, which consists of two interrelated components - cognitive and affective, woven into overall impressions. The cognitive component can be interpreted as beliefs and knowledge about the physical attributes of a tourism destination, while the affective component refers to the appraisal of the affective quality of feelings towards the attributes and the surrounding environments. Furthermore, numerous researchers across fields and disciplines agree (Baloglu, McCleary, 1999) that image is mainly formed by two major

---

[1] Studies on tourism destination image began in the early 1970s, when Hunt (1975) examined the role of image in tourism development (Hosany, Ekinci, Uysal, 2006: 638).

forces: stimulus factors (information sources, previous experience and distribution) and personal factors (social and psychological) (Figure 1.).

It can be seen from the Figure 1 that information sources represent one of the many forces or agents that influence the tourism destination image formation. Information sources are usually categorized into organic and induced (Gartner, 1993; Gunn, 1972). The organic sources (book, school curriculum, news, movies, actual destination visits, etc.) do not have a vested interest in promoting a tourism destination, while the induced sources (travel brochures, advertisements, posters, videos, and, most recently, the Internet) are means of communicating marketing messages of the tourism destination and suppliers to a chosen travel audience.

Figure 1 A general framework of tourism destination image formation

Stimulus factors
- Information sources (amount, type)
- Previous experience
- Distribution

Personal factors
- Social (age, education, marital status, others)
- Psychological (values, motivations, personality)

PERCEIVED TOURISM DESTINATION IMAGE

Cognitive image

Affective image

Overall image

Source: Adapted from Baloglu, S., McCleary, K. (1999): 'A model of destination image formation', *Annals of tourism research* (4, 1999): 870; Beerli, A., Martin, J. (2004a): 'Factors influencing destination image', *Annals of tourism research* (4, 1999): 660

In the absence of actual visitation, tourism destination images are formed through induced agents (Gartner, 1989). This paper analyzes Internet as an induced information source or an agent that influences tourism destination image formation.

3. INTERNET – AN AGENT OF TOURIST DESTINATION IMAGE FORMATION

Tourism product is an unusual product because it exists only as information at the point of sale, and cannot be sampled before the purchase decision is made. Its' intangibility as well as a high price and purchase risk require a high level involvement in purchase decision making. Thus, the information–based nature of the tourist product, on the one side, and the global reach, multimedia capability, ease of use, interactivity and flexibility, on the other side, made of Internet "a prominent medium in tourism marketing" (O' Connor, Murphy, 2004; Oh, Kim, Shin, 2004).

On the supply side of tourism market the Internet is actively used by hotels, airlines, travel agencies, convention and visitor bureaus and other destination marketing organizations (Stepchenkova, Morrison, 2006), because it is relatively inexpensive in comparison with other promotion media (Standing, Vasudavan, 2000) and other distribution channel (cf. Doolin, Burgess, Cooper, 2002; Lin, Huang, 2006). The Internet offers great potential to influence consumers' perceived images, including creating virtual experiences of destination. According to Internet Week's survey, more than two-thirds of the travel and hospitality companies view the Internet site as a significant competitive weapon within their industry and about 60 percent describe the Internet as being substantial in acquiring new customers (Mullen, 2000 in: Baloglu, Pekcan, 2006).

On the demand side of tourism market, an increasing number of people are using the Internet for information search because the World Wide Web provides more in-depth materials and richer content compared with conventional promotional agents (Govers, Go, 2003; Heung, 2004). There is currently about 17 percent of the World population that use Internet (www.internetworldstats.com/stats.htm, Accessed 30.03.2007).[2] According to the TOMAS research (2004), 2 percent of tourists that visited Croatia in 1997 used the Internet as information source for the visit, while in 2004 this share augmented at 23 percent. The same research also concluded that in 2004 Internet held third place as tourists' source of information (behind previous visits – 47 percent, and recommendation from relatives and friends – 33 percent), mainly for younger tourists (up to age 29), and those in the medium age group (ages 30-49) (TOMAS, 2004).

Due to that increased importance of digital information, the timing, costs and strategies for distributing promotional messages have changed (Choi, Lehto, Morrison, 2007). In the pre-Internet era destination marketing organizations (DMOs) were effective and influential in media content placement and in the coordination of destination positioning initiatives (Govers, Go, 2003). Since the Internet arrived, centralized control over destination information dissemination is almost impossible. Therefore, it is necessary to research and redefine the role of Internet and other information agents in shaping destination image.

4. CONTENT AND CORRESPONDENCE ANALYSIS OF ISTRIA TRAVEL RELATED WEBSITES

4.1. Study background and objective

Istria is the most developed tourism destination in Croatia (Table 1). Tourism in Istria is one of the most important economic features and priorities in the context of its long-term development. There are two distinguished periods in the development of tourism in Istria, that is:

- First period, from 1965 until 1990, when natural and social values of Istria began to be appreciated for the purposes of tourism. During this period, tourism continuously grew and developed.
- Second period, from 1990 until today. During this period, tourism in Istria experienced huge changes due to political changes on global and national level. The changes involved financial damages, loss of markets and revenues, as well as a struggle to revive development processes and return to the markets of emitive tourism countries.

---

[2] World usage of the Internet growth from 2000 to 2007 by 208.7 percent

Table 1   Istria as tourism destination – selected indicators for 2005.

Indicators	Istria	Proportion in Croatia (in %)
Accommodation capacity (in bed)[1]	245.238	27
Hospitality facilities' capacity (in seats)[2]	168.166	18
Employed in hospitality facilities[2]	14.000	17
Turnover (in thousands of Kunas with VAT)[2]	2.953.371	23
Tourist arrivals[2]	2.505.017	25
• Domestic tourists	166.610	11
• Foreign tourists	2.338.407	28
Overnight stays of tourists[2]	16.649.944	32
• Domestic tourists	686.276	13
• Foreign tourists	15.963.688	35

Source: [1] 'Internal documentation' (2006), HGK – County chamber of economy Pula. Pula
[2] 'Statistical yearbook 2006' (2006), State Bureau of Statistics, http://www.dzs.hr [Accessed 30.03. 2007]

During the first development period, the basic feature of tourism product of Istria was tourism product "Sun and Sea", accommodation facilities of large capacity and generating tourism turnover only during the summer months. During the second development period of Istrian tourism numerous natural and social attractions are beginning to be used more significantly and tourism product is becoming diversified. Master plan of Istrian tourism 2004-2012 (www.istra-istria.hr, Accessed 30.03.2007) has been passed with goal of initiating the new development cycle of tourism in Istria. The Plan channels tourism towards preserving the environment, different tourism products, extending the season, quality of offer with average 3-4 stars, as well as increasing employment and quality of life for the local population. Besides Master Plan of Istrian tourism, the following programs and projects have been developed with goal of valuing the overall tourism potential of Istria (www.istra-istria.hr, Accessed 30.03.2007):

- Farm tourism in Istria
- Wine roads
- Gastro tourism
- Days of Truffle in Istria
- Olive oil roads
- Bike tourism
- Brijuni rivijera
- System for promoting Tourism Quality
- Golf in Istria
- Parenzana
- Stimulating development of small family Hotels.

Above stated programs and projects should contribute to better positioning of Istria as a destination on the tourism market.

Because of larger spectrum of information sources and channels, representing destination's image has become more complex today. Thus, the focus of this research was to compare and contrast the images projected by the official Istrian tourism website (www.istra.hr, Accessed 30.03.2007), and those of the travel trade and online travel publications (guides and magazines). Travel blogs were also analyzed to reveal the dialectic view of both the trade and the general travel public (Lin, Huang, 2006; Choi, Lehto, Morrison, 2007). The narrative and visual information was analyzed through content and correspondence analyses. Accordingly, the specific research objectives were to:

1. Identify the most frequently used words describing Istria as a tourism destination on Istria travel related websites, and compare them across the different online information sources.
2. Identify the most frequently used visual information on Macao travel related websites, and compare them across the different online information sources.
3. Examine how different sub-categories of websites project the images of Istria and provide marketing implications if there are disparities in image representation.

4.2. Methodology

Some previous studies have investigated the pictorial or verbal contents of promotional materials from the perspectives of the research subjects after exposure to the messages (Day, Skidmore, Koller, 2002; MacKay, Fesenmaier, 2000). O'Leary and Deegan (2005) argued that content analysis of written information, such as guidebooks and travel brochures, could provide a great number of information about the images projected by a tourism destination. Online tourism information sorces were analyzed by a few researchers. Stepcenkova and Morrison (2006) examined narrative content of touroperator websites about Russia; Lin and Huang (2006) explored the Internet blogs as a tourism marketing medium; and Choi, Lehto and Morrison (2007) analyzed narrative and visual contents of travel related websites. This research was intended to go one step further, so that besides analyzing narrative and visual contents of travel related websites, it performs correspondence analysis between different online information sources.

In this research the sample of websites was selected through an exhaustive sarch of website lists under the travel directories of Google from April 21, 2007 to April 25 2007. By visiting a number of websites under the sub-categories such as «Destinations», «Guides and Directories», «Images Galleries», «Publications», «Tour Operators», «Travel Agents», «Travelogues», «News and Media», «Blogs» and «Istria», the websites with Istria travel-related information were identified. Then, these websites were classified into four sub-categories according to the websites' identities: travel blogs, travel guides, travel magazines and travel trade. To avoid redundancy, some websites were eliminated from the sample. The remaining sample of 39 websites included the official Istrian County Tourism Office (ICTO) website, 9 travel blog, 13 travel guide, 8 travel magazine and 8 travel trade websites. The website contents were saved as .txt files (for textual information analysis) and .html files (for visual information analysis). After that, the text files and html files were merged into five separate files for each sub-category (ICTO, Blogs, Guides, Magazines, Travel trade) for further narrative and visual content analysis.

The text data was content-analyzed using a combination of software packages HAMLET II (version 2.2.2) (Brier, 2006) and WORDER (version 2.1) (Kirilenko, 2005). To achieve interpretable results certain grammatical and "stop" words, such as "the", "is", "I", "also" and so on, were excluded. After that, using WORDER plural nouns were replaced into the singular form (e.g. "hotels" into "hotel") and synonyms (and wrongly written words) were transformed in one word (e.g. "amphiteatres", "arena", "coliseum", "coloseum", "amphiteatre", "amphiteater", into "amphitheatre"). Finally, using HAMLET's Wordlist on data filtered by WORDER were possible to achieve list of most frequent meaningful words for each sub-categories. The ranks of combined data were calculated based on sums of frequency rate of each word in every sub-category.
The top 50 most frequent used words (combined) were coded into quantified data in SPSS for correspondence analysis.

The visual information were classified into 9 categories and compared across the five sub-categories based on frequency analysis and correspondence analysis.

4.3. Results

4.3.1. Analysis of textual information

Table 2 displays and compares the top 20 most frequently used words for each website sub-category and shows the combined total frequencies for all categories of websites. The most frequently used words among blogs, guides, magazines and travel trade are "Town", "Croatia" "Pula", "Tourism", which mainly point out to Istria as being part of Croatia, the biggest town in Istria – Pula, and significance of tourism for this region. On the ICTO website "Town" (rank 1), "Pula" (rank 19) and "Tourism" (rank 13) are also high ranked words, but there's no "Croatia" among top 67 most frequently used words. High ranked words on ICTO website witch aren't used or are very little used by other four website sub-categories are "Nature", "Protected" and "Mediterranean".

Table 2 Most frequent words in rank order

Rank	Combined	ICTO	Blogs	Guides	Magazines	Travel trade
1	Town	Town	Croatia	Town	Town	Tourism
2	Croatia	Sea	Town	Croatia	Croatia	Town
3	Pula	Nature	Rovinj	Pula	Pula	Croatia
4	Tourism	Coast	Tourism	Rovinj	Islands	Pula
5	Rovinj	Trail	Pula	Porec	Coast	Sea
6	Sea	Ancient	Hotel	Tourism	Region	Coast
7	Coast	Trees	Ancient	Ancient	Roman	Hotel
8	Ancient	Mediterranean	Italy	Beach	Venetian	Apartments
9	Islands	Protected	Small	Century	Music	Rovinj
10	Porec	Small	Coast	Italy	Italy	Venezia
11	Beach	Center	Cycling	Umag	Truffle	Cousine
12	Roman	Islands	Peninsula	Resort	Festival	Facilities
13	Trees	Tourism	Restaurant	English	Rovinj	Sport
14	Italy	World	Bay	Sea	Tourism	Ancient
15	Nature	Beauty	Sea	Holiday	Hill	History
16	Hotel	History	Walking	Coast	Local	Trees
17	Century	Hill	Hill	Peninsula	Road	Nature
18	Road	Rovinj	People	Culture	World	Resort
19	Hill	Pula	Road	Roman	Century	House
20	History	Rabac	Roman	German	Sea	Porec
21	Peninsula	Bay		Protected	Trees	Walking
22		Beach	Trees	Islands		Road
23	Small			Hotel	Beach	Culture
24	Resort	Culture		Bay		
25	Bay			Facilities		Islands
26	Culture				Ancient	Beach
27	Protected	Sport	Beach			
28	World	Cousine				
29	Cousine		History			
30			Region			
31	Facilities		Apartments	Nature		Peninsula
32		Porec	Century		Culture	Roman
33	Umag	Road	Cousine			
34	Venezia			Hill	History	
35	Venetian		German			
36	Mediterranean		Local			Holiday
37	Music		Porec	Rabac	Resort	
38			Resort			
39	Holiday					
40	Trail				Venezia	Small
41		Century				
42	Walking	Hotel			Bay	Bay
43	Center				Center	

#						
44			Facilities		Cousine	Local
45		People		Trees		
.						
47	Rabac					
.						
49		Roman				
50	People					Music
51	Local					
52	Sport	Cycling				
53	House		Rabac			
54	Festival					
55	Truffle		Venetian	History		
56			Venezia			Protected
57	Restaurant	Peninsula				
58	Apartments					
59			Islands			Century
60	English	Umag		Small		Festival
.						
62		Walking				
63				World		
64						World
65		Facilities	English			
.						
67	Cycling					Italy

The correspondence analysis was conducted to examine the images of Istria on the five sub-categories of websites. The frequency rate for each word in each sub-category was calculated and these were used as a distance measure among the frequently occurring words and the five website sub-categories in constructing a correspondence map (Table 3).

Table 3 Frequency rates of key words for each website sub-category (in %)

Key words	Sub-categories				
	ICTO	Blogs	Guides	Magazines	Travel trade
Town	1.60	1.30	2.07	2.50	1.13
Croatia	0.08	1.30	1.95	1.31	0.87
Pula	0.38	0.63	1.59	1.19	0.83
Tourism	0.52	0.70	1.20	0.54	1.48
Rovinj	0.41	0.86	1.39	0.54	0.57
Sea	1.41	0.35	0.55	0.42	0.82
Coast	0.92	0.41	0.50	0.77	0.77
Ancient	0.76	0.51	1.03	0.30	0.47
Islands	0.60	0.13	0.38	0.83	0.37
Porec	0.30	0.19	1.20	0.18	0.40

Note: Due to space limitation, only the first ten rows of the 50 rows are presented here for illustrative purpose.

The usual output from a correspondence analysis includes the "best" two-dimensional representation of the data (based on reduced multidimensional frequency to two-dimensional map), along with the coordinates of the plotted points, and a measure (called the "inertia") of the amount of information retained in each dimension.
The results from a correspondence analysis regarding text are given in the Table 4 and 5.

Singular value is a statistical measure describing the number of dimensions, and it should exceed 0.2 in order to be considered as a viable dimension (Hair, Anderson, Tatham, Black, 1998). The singular values for the dimensions extracted from the data indicated a three-dimensional solution.

Table 4 Summary of the correspondence analysis

Dimension	Singular Value	Inertia	Chi Square	Sig.	Proportion of Inertia		Confidence Singular Value	
					Accounted for	Cumulative	Standard Deviation	Correlation
								2
1	.374	.140			.455	.455	.096	.027
2	.292	.085			.278	.732	.098	
3	.223	.050			.161	.894		
4	.181	.033			.106	1.000		
Total		.307	29.714	1.000ᵃ	1.000	1.000		

Note: ᵃ 196 degrees of freedom

Table 5 shows that the contribution of both dimensions to explaining the variance of the ICTO and magazines was high, over 95%, guides 77.3%, but for blogs and especially travel trade was low (18.3%, and 2.8%). This means that mostly information regarding blogs and travel trade was lost by representing the data in the two-dimensional space.

Table 5 Dimensions and correspondence to website sub-categories

Website Sub-category	Mass	Score in Dimension		Inertia	Contribution				
					Of Point to Inertia of Dimension ᵃ⁾		Of Dimension to Inertia of Point ᵇ⁾		
		1	2		1	2	1	2	Total
ICTO	.209	1.150	-.018	.106	.739	.000	.976	.000	.976
Blogs	.150	-.303	.150	.033	.037	.012	.153	.029	.183
Guides	.244	-.451	.627	.060	.133	.329	.308	.465	.773
Magazines	.207	-.406	-.955	.070	.091	.647	.181	.783	.965
Travel trade	.191	-.002	.137	.037	.000	.012	.000	.028	.028
Active Total	1.000			.307	1.000	1.000			

Notes: ᵃ⁾ Proportion of dimension's inertia attributable to each category
ᵇ⁾ Proportion of category variation accounted for by dimension

The inertia associated with the first dimension is 0.14 accounts for 45.5% of the total inertia. The inertia associated with the second dimension is 0.085, and the second dimension accounts for 27.8% of the total inertia. Together, the two dimensions account for 73.2% of the total inertia. Relatively little information (variation) is lost (26.8%) by representing the data in the two-dimensional plot of Figure 2. The plot in Figure 2 is the best two-dimensional representation of the multidimensional scatter of row points and the multidimensional scatter of column points. The Chi Square test clearly shows independence between rows and columns.

Figure 2 shows three statistically relevant groups of websites (ICTO, Guides and Magazines) which appeared to be quite dissimilar, as proven by their relative distance from each other. Information regarding blogs and travel trade was mostly lost because data was represented in two-dimensional space. Therefore, no statistically significant conclusion can be derived from them. This indicates that each of website sub-categories projected the image of Istria differently. The three relevant website sub-categories had some distinct underlying characteristics or purposes of communication. Words like "sea", "small", "history", "trees", "protected", "nature", "Mediterranean", "tradition" etc. are positioned around ICTO website. This means that ICTO wants to represent Istria as tourism destination with protected nature and having rich Mediterranean heritage. On the other side words like "holiday", "beach",

"Porec", "Rovinj", "Umag", "hotel", "facilities", "resort", "tourism" etc., are grouped around guides and probably, but statistically not significant, around blogs and travel trade. Mentioned words describe Istria as holiday destination (with several tourism centers) with recreation on the sea and by the sea. Finally, magazines are linked to words like "roman", "region", "Venetian", "wine", "islands", "music" etc., which means that history and distinctive specialties (wine, music) of the region are emphasized in them.

Figure 2 Correspondence map for the frequent words represented on five website sub-categories
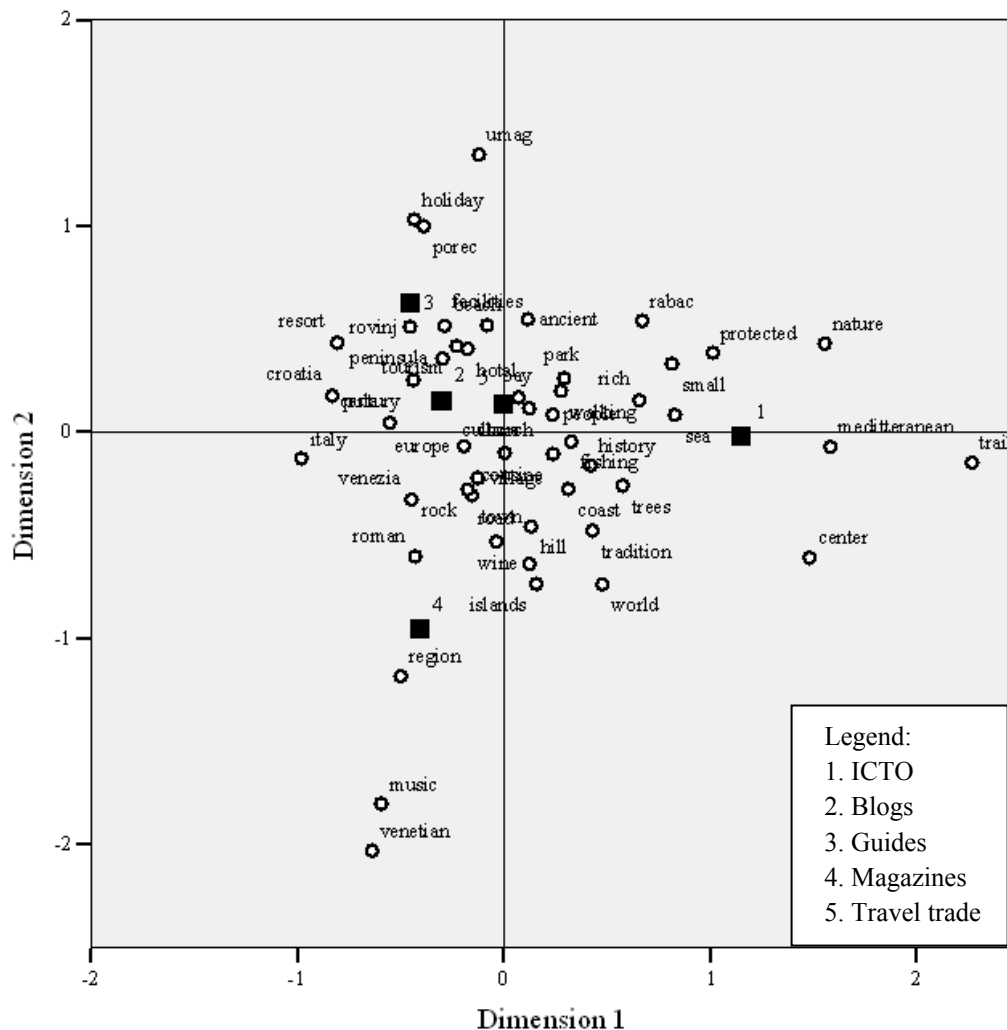
4.3.2. Analysis of visual information

Visual information, mainly referring to photographic images, on the websites of the five different sub-categories was also analyzed. As explained in the methodology section, to understand the projected image of Istria, all the pictorial images from the sampled websites were collected and categorized into the following 9 sub-categories:
1. Historic buildings and heritage
2. Cultural events and art

3. Local cuisine
4. Old town (details or panoramic view)
5. Nature (ditails or panoramic view)
6. Tourism and recreation facilities
7. People and local residents
8. Map
9. Others (flags, stems and other photographic images)

Table 6 Visual information on the five sub-categories of websites

Image topic	ICTO		Blogs		Guides		Magazines		Travel trade		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Historic buildings and heritage	4	11	6	11	28	22			6	18	44	17
Cultural events and art	3	8	6	11	2	2	1	17		0	12	5
Local cuisine	2	6			1	1			3	9	6	2
Old town	3	8	19	35	47	37	3	50	11	32	83	32
Nature	8	22	7	13	42	33			6	18	63	25
Tourism and recreation facilities	5	14	8	15					3	9	16	6
People and local residents	2	6	3	6	1	1	2	33	2	6	10	4
Map	6	17	2	4	3	2			3	9	14	5
Others	3	8	3	6	3	2				0	9	4
Total	36	100	54	100	127	100	6	100	34	100	257	100

Note: *n* – the number of picture image in each sub-category.

Images on the Istria travel-related websites pictured Istria as a static tourism destination, showing lots of old buildings and protected nature (Table 6). There were fewer images related to recreation experiences, cultural events, local people and cuisine. While the destination was displayed as a place rich in heritage sites and protected nature, there seem to be a lack of effort in bringing Istria to life through interactive or experience-based pictorial images.

The results of correspondence analysis regarding visual information are given in the Table 7 and 8.

Table 7 Summary of the correspondence analysis

Dimension	Singular Value	Inertia	Chi Square	Sig.	Proportion of Inertia		Confidence Singular Value	
					Accounted for	Cumulative	Standard Deviation	Correlation 2
1	.573	.328			.607	.607	.030	-.021
2	.358	.128			.238	.845	.039	
3	.235	.055			.102	.947		
4	.169	.029			.053	1.000		
Total		.540	270.001	.000[a]	1.000	1.000		

Note: [a] 32 degrees of freedom

The singular values for the dimensions extracted from the data indicated a three-dimensional solution.

The inertia associated with the first dimension is 0.328 and it accounts for 60.7% of the total inertia. The inertia associated with the second dimension is 0.128, and the second dimension accounts for 23.8% of the total inertia. Together, the two dimensions account for highly 84.5% of the total inertia. Relatively little information (variation) is lost (15.5%) by representing the data in the two-dimensional plot of Figure 3. The Chi Square test clearly shows independence between rows and columns.

Table 8 Dimensions and correspondence to website sub-categories

Website Sub-category	Mass	Score in Dimension		Inertia	Contribution				
					Of Point to Inertia of Dimension [a]		Of Dimension to Inertia of Point [b]		
		1	2		1	2	1	2	Total
ICTO	.200	.646	-.870	.109	.146	.422	.440	.499	.939
Blogs	.200	-.004	-.233	.036	.000	.030	.000	.108	.108
Guides	.200	.427	.972	.096	.064	.527	.217	.703	.919
Magazines	.200	-1.454	-.052	.245	.739	.002	.990	.001	.991
Travel trade	.200	.385	.183	.054	.052	.019	.313	.044	.357
Active Total	1.000			.540	1.000	1.000			

Notes: [a] Proportion of dimension's inertia attributable to each category
[b] Proportion of category variation accounted for by dimension

Table 8 shows that the contribution of both dimensions to explaining the variance of the ICTO, guides and magazines was over 90%, but for blogs and travel trade was quite low (10.8% and 35.7%). This means that some information regarding blogs and travel trade was lost by representing the data in the two-dimensional space.

Figure 3 Correspondence map for images represented on five website sub-categories
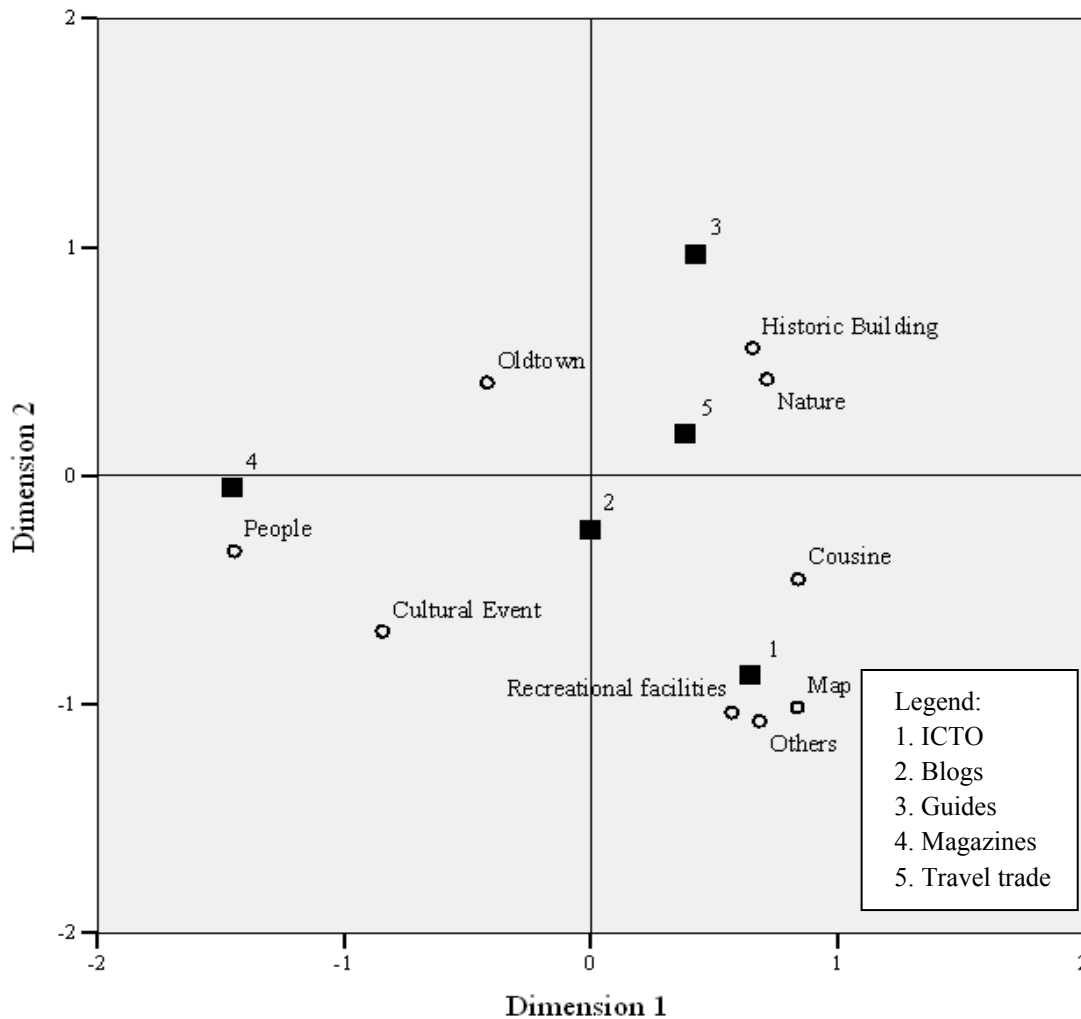

Figure 3 shows that three groups (statistical relevant, based on Table 8) of websites (ICTO, Guides and Magazines) are quite differently positioned, which is evident from how they are relatively distant from each other. Information regarding blogs and travel trade was mostly lost because data was represented in two-dimensional space. Therefore, no statistically significant conclusion can be derived from them. This indicates that each of website sub-categories projected the image of Istria differently. The three relevant website sub-categories had some distinct underlying characteristics or purposes of communication. Images of tourism and recreational facilities, maps and cuisine are mainly positioned around ICTO website. Images of historic building and nature are mostly shown in guides. Finally, images of people and local residents are linked to magazines.

5. CONCLUSION

This research aims to reach understanding of importance that Internet as an agent plays in creating tourism destination image as well as in on-line image representations of Istria as tourism destination. It has been established that during the past decade the use of Internet grew significantly among subjects of tourism offer and its demand. Today, it represents very important agent in creating tourism destination image. By analyzing and comparing textual and visual information in different Istria travel related websites sub-categories, the researcher

produced some interesting findings, which have important marketing implications. The study confirmed that Istria's destination image represented on-line was not consistent across the different online travel information categories (ICTO, blogs, guides, magazines, travel trade). This indicates that intended image by Istria tourism authorities is not being successfully delivered to the English-speaking traveling public, travel intermediaries and travel media. While the communication targets and objectives of the different website categories may vary, it is important for destination management organizations to examine and assimilate different image perspectives for in this manner they will be able to achieve greater effectiveness of positioning strategies.

BIBLIOGRAPHY:

Baloglu, S., Brinberg, D. (1997): 'Affective images of tourism destination', *Journal of Travel Research* (4, 1997): 11-15

Baloglu, S., McCleary, K.W. (1999): A model of destination image formation', *Annals of Tourism Research* (4, 1999): 839-858

Baloglu, S., Pekcan, Y.A. (2006): 'The website design and Internet site marketing practices of upscale and luwury hotels inTurkey', *Tourism Management* (27, 2006): 171-176

Beerli, A., Martin, J.D. (2004a): ' Factors influencing destination image', *Annals of Tourism Research* (3, 2004): 657-681

Beerli, A., Martin, J.D. (2004b): 'Tourists' caracteristics and the perceived image of tourist destinations: a quantitative analysis – a case study of Lanzarote, Spain', *Tourism Management* (25, 2004): 623-636

Boulding, K.E. (1967): *'The image: Knowledge and life in Society'*, Ann Arbor, MI: University of Michigan Press
Brier, P. A. (2006): 'HAMLET II (version 2.2.2)', Computer software, http://www.apb.cwc.net/homepage.htm [Accessed 30.03. 2007]

Choi, S., Lehto, S.Y., Morrison, A.M.(2007): 'Destination image representation on the web: Content analysis of Macau travel related websites', *Tourism Management* (28, 2007): 118-129

Crompton, J.L. (1979): 'An assessment of the image of the Mexico as a vacation destination and the influence of geographical location upon the image', *Journal of Travel Research* (4, 1979): 18-23

Day, J., Skidmore, S., Koller, T. (2002): ' Image selection in destination positioning: A new approach', *Journal of Vacation Marketing* (2, 2002): 177

Doolin, B., Burgess, L., Cooper, J. (2002): 'Evaluating the use of the Web for tourism marketing: a case study from New Zealand', *Tourism Management* (23, 2002): 557-561

Echtner, C.M., Ritchie, J.R.B. (1991): The meaning and measurement of destination image', *The Journal of Tourism Studies* (2, 1991): 3-13

Fekeye, P.C., Crompton, J.L. (1991), 'Image differences between prospective, first-time, and repeat visitors to the Lower Rio Grande Valley', *Journa of Travel Research* (2, 1991): 10-16

Gallarza, M.G., Saura, I.G., Garcia, H.C. (2002): 'Destination image: Towards a conceptual framework', *Annals of Tourism Research* (1, 2002): 56-78

Gartner, , W.C. (1989): 'Tourism image:Attribute measurement of state tourism products using multidimensional scaling techniques', *Journal of Travel Research* (Fall, 1989): 16-20

Gartner, , W.C. (1993): 'Image formation process', *Journal of Travel and Tourism Marketing* (2, 1993): 191-216

Govers, R., Go, R.M. (2003), 'Deconstructing destination image in the information age', *Information Technology and Tourism* (6, 2003): 13-29

Gunn, C.A. (1972): *'Vacationscope: Designing tourist regions',* Austin: Bureau of Business Research, University of Texas

Hair, J., Anderson, R., Tatham, R., Black, W. (1998): *Multivariate data analysis*, Fifth Edition, Prentice Hall: Upper Saddle River, N.J.

Heung, V.C.S. (2004): ' Internet usage by international travelers: Reasons and barriers', *International Journal of Contemporary Hospitality Marketing* (7, 2004): 370-378

'Internal documentation' (2006). HGK – County chamber of economy Pula. Pula

'Istra – Green Mediterranean', Official website of Istrian County Tourism Organization, http://www.istra.hr [Accessed 30.03. 2007]

Johnson, R. A., Wichern, D. W. (2002): *Applied multivariate statistical analysis*, Fifth Edition, Prentice Hall: Upper Saddle River, N.J.
Kirilenko, A. P. (2005): 'WORDER (version 2.1)', Computer software, http://www.und.nodak.edu/instruct/kirilenko/worder/download.html [Accessed 30.03. 2007]

Lee, C., Lee, Y., Lee, B. (2005): ' Korea's destination imge formed by the 2002 World cup', *Annals of Tourism Research* (4, 2005): 868-897

Lin, Y., Huang, J. (2006): Internet blogs as a tourism marketing medium: A case study', *Journal of Business Research* (59, 2006): 1201-1205

MacKay, K.J., Fesenmaier, D.R. (1997): 'Pictorial element of destination in image formation', *Annals of Tourism Research* (24, 1997): 537-565

MacKay, K.J., Fesenmaier, D.R. (2000): 'An exploration of cross-cultural destination image assessment', *Journa of Travel Research* (4, 2000): 417-423

Martineau, P. (1958): 'The personality of the retail store', *Harvard Business Review* (January-February, 1958): 47-55

O'Connor, P., Murphy, J. (2004): 'Research of information technology in the hospitality industry', *Hospitality Management* (23, 2004): 473-484

O'Leary, S., Deegan, J. (2005): 'Ireland's image as a tourism destination in France: Attribute importance and performance', *Journa of Travel Research* (3, 2005): 247-256

Oh, H., Kim, B., Shin, J. (2004): 'Hospitality and tourism marketing: Recent developments in research and future direction', *Hospitality Management* (23, 2004): 425-447

'Programi i projekti', Istarska županija, Upravni odjel za turizam, http://www.istra-istria.hr [Accessed 30.03. 2007]

Reynolds, W. (1965): 'The role of the consumer in image building', *California Management Review* (3, 1965): 69-76

Standing, C., Vasudavan, T. (2000): 'The marketing of regional tourism via the Internet: Lessons from Australian and South African sites', *Marketing Intelligence Planning* (1, 2000): 45-48

'Statistical yearbook 2006'(2006), State Bureau of Statistics, http://www.dzs.hr [Accessed 30.03. 2007]

Stepcenkova, S., Morrison, a.M. (2006): 'The destination image of Russia: From the online induced perspective', *Tourism Management* (27, 2006): 943-956

TOMAS 2004 – Stavovi i potrošnja turista u Hrvatskoj (2005), Zagreb: Institut za turizam.

Walmsley, D.J., Young, M. (1998): 'Evaluative images and tourism: The use of perceptual constructs to describe the structure of destination images', *Journal of Travel Research* (3, 1998): 65-69

Woodside, A.G., Lysonski, S. (1989): ' A general model of traveler destination choice', *Journal of Travel Research* (spring, 1989): 8-14

'World internet usage statistics: News and population statistics', Internet World Stats, http://www.internetworldstats.com/stats.htm [Accessed 30.03. 2007]