

# EKOLOŠKA SVIJEST U HRVATSKOJ SMJEŠTAJNOJ INDUSTRIJI

---

**Petrić, Lidija; Pranić, Ljudevit**

*Source / Izvornik:* **Acta turistica nova, 2010, 4, 5 - 21**

**Journal article, Published version**

**Rad u časopisu, Objavljena verzija rada (izdavačev PDF)**

*Permanent link / Trajna poveznica:* <https://um.nsk.hr/um:nbn:hr:124:493660>

*Rights / Prava:* [In copyright](#)/[Zaštićeno autorskim pravom.](#)

*Download date / Datum preuzimanja:* **2024-12-02**

*Repository / Repozitorij:*

[REFST - Repository of Economics faculty in Split](#)



UNIVERSITY OF SPLIT

The logo for 'dabar', featuring a stylized black and red graphic above the word 'dabar' in a lowercase, sans-serif font.

DIGITALNI AKADEMSKI ARHIVI I REPOZITORIJI

**Lidija Petrić and Ljudevit Pranić**

## **ENVIRONMENTAL AWARENESS IN THE CROATIAN LODGING INDUSTRY**

### **ABSTRACT:**

Notwithstanding the great environmental and operational issues facing Croatia's hoteliers, very little is known about managers' awareness of them. To fill this gap, this study examines the awareness of Croatian hoteliers of important environmental issues, e.g. the need to use natural resources efficiently, to preserve the cultural heritage, etc. Specifically, it reports on the attitudes of Croatian hoteliers towards the environment, and tests whether various hotel characteristics determine such attitudes. The article concludes that hoteliers tend to favour environmental issues, and that these attitudes are generally independent of hotel characteristics.

**Key words:** environmental management, eco-standards, hotel industry, Croatia

---

Professor Lidija Petrić, PhD, University of Split, Faculty of Economics, Matice hrvatske 31, Split, Croatia, e-mail: lipe@efst.hr

Ljudevit Pranić, PhD, University of Split, Faculty of Economics, Matice hrvatske 31 Split, Croatia, e-mail: ljudevit.pranic@efst.hr

## **DISCUSSION**

### **The Hospitality Industry and the Environmental Awareness**

It was not until the 1990s that tourism - and in particular, the hospitality industry – started to respond to the needs of environmental management. Namely, in 1992, the International Hotels Environment Initiative was developed when a number of the leading international hotel companies realised that they had a lot to gain from working together. The IHEI had developed a manual for managers (IHEI, 1993; as cited in Kirk, 1998), a journal, “Green Hotelier”, and a number of training aids for hotel companies. IHEI has now evolved into the International Tourism Partnership, the tourism programme of the International Business Leaders Forum (ITP, 2009), whose aim is to assist the industry to make a valuable contribution to the countries and cultures in which they operate, to their customers, their shareholders and future generations. They have published the third edition of a manual “Environmental Management for Hotels” providing hotels and other related businesses with the knowledge and means to develop practical solutions to “green” their operations.

As part of wider environmental management, many (typically larger and/or franchised) tourism establishments now use the ISO 14001 environmental management standard. The ISO 14000 series of eco-standards was developed and issued by the International Organization for Standardization (ISO) in 1996. They are meant to be complementary to national regulatory regimes and are not intended to replace or duplicate a country’s regulatory regime (Quazi, 1999). ISO 14001 was recognised as a step toward achieving EMAS, the Eco-Management and Audit Scheme. EMAS has become operative in the EU since April 1995 (EU/Environment, 2009). It is a voluntary scheme aiming to promote continuous evaluation and improvements in the environmental performance of participating organisations. EMAS goes beyond EN ISO 14001 in a number of ways, requiring the undertaking of an initial environmental review, the active involvement of employees in the implementation of EMAS, and the publication of relevant information to the public and other interested parties.

Green Globe 21 is also an environmental management standard, developed specifically for the travel and tourism industry. There are also a substantial number of ecolabels, codes of conduct, sustainability reporting schemes, awards, and benchmarking programs in the tourism industry. Font (2002, as cited in WTO & UNEP, 2008; 164) identified over 100 ecolabels of tourism, hospitality and ecotourism worldwide (such as Blue Flag, Pan Parks, etc.). Environmental management, certification and ecolabelling can be a useful basis for managing a business’s supply chain and for developing strategic partnerships.

From the available literature (Kirk, 1998; Chan, 2008), it is clear that the pioneers in the introduction of ecological operation standards, i.e. environmental management, were mainly hotels belonging to the big hotel chains. This is due to the fact that, apart from the simplest rationalisation measures, most activities require a significant starting investment which, although the return on it is relatively fast, cannot be afforded by hotels that operate without secure and stable financial and managerial support. Moreover, in most countries environmental policy is mainly designed to penalise noncompliance with certain standards and regulations rather than to reward autonomous environmental initiative. Nevertheless, there are increasingly frequent government initiatives aimed at subsidising hotels in their

efforts to introduce ecological standards in their operations. An outstanding example is the federal government of Canada which, since the mid nineties, has been supporting with an annual subsidy of 4% of hotel income the members of the Canadian Hotel Association in their efforts to develop an environmentally friendly offer. This cooperation is carried out through the government Agency for Environment Preservation which, among other things, helps the Hotel Association develop ecological operation criteria by ensuring 50% of the funds needed for the implementation of the programme (IHRA, UNEP, 1995: 46).

Although ecological initiatives can be made in any hotel, this is certainly much more easily done with financial, organisational and consultative support. Even though a certain number of countries are directly engaged in such programmes, ecological programmes in the tourist industry, and particularly in the hotel industry, are mainly carried out through various professional alliances, primarily through the national hotel associations. They are then associated into the International Hotel Association (IHRA, 2008) and other green organisations (professional and non-professional) and ecological initiatives. The most renowned are GEMI - Global Environment Management Initiative (1999), the centre for the promotion of ecological standards and environmental management in companies all over the world, and WEC - World Environment Center (2009), serving as a bridge for information and expertise exchange between the industry and governments, as well as numerous organisations and associations dealing with these issues.

As for EU initiatives related to the issue, the EU Eco-label award scheme has been set up to identify products with a reduced environmental impact. It is a voluntary scheme and manufacturers can choose whether or not to apply for the Eco-label. The scheme is based on Council Regulation EEC No. 880/92 of 23 March 1992, updated and revised by Council Regulation No. 1980/2000 of 17 July 2000. The European Eco-label for tourist accommodation services was created to reward accommodation services that respect the environment. It signals good environmental performance and is an added quality value when tourists choose their accommodation. Hotels and guesthouses displaying the Eco-label flower logo have been distinguished as being amongst the most environmentally friendly in their area (2009).

### **The Croatian Lodging Industry and Environmental Management**

The Croatian lodging industry is still operating in an unfavourable business environment. This is primarily due to the incomplete privatisation process and the unresolved problem of land ownership. Besides, Croatian tourism is still mostly of a seasonal character which is caused by a number of problems such as poor direct air links between its destinations and generating markets and an inadequate and insufficiently attractive offer of destinations in the off-season period. Under these circumstances, most Croatian hotel companies are coping with mere survival in the market. This is why most of them are unwilling to implement formal systems of environmental management, justifying their decision with reasons of high initial costs. The exceptions are the hotels operating within international chains whose ecologically oriented operation is the basic element of their competitive strategy.

A very recent study of the Croatian lodging sector revealed that only a third (33.3%) of the sampled hotels have a formal, written environmental policy (Petrić & Pranić, 2009). Moreover, Croatian hoteliers have positive attitudes towards the potential benefits arising from environmentally-oriented hotel management, including increased profitability, increased

employee and guest satisfaction, improved relations with the local community, improved public relations, and the development of competitive advantage. Although all six of the potential benefits from eco-management received positive attitude ratings, the questions related to increased customer satisfaction, providing marketing advantage, and helping with PR were rated higher than other attitude questions.

Some hotels in Croatia implement informal measures of environmental management directed primarily at curbing energy and water consumption. For example, the Croatian Association of Small and Family Hotels provides training for its members in the implementation of these measures and in environmental management in general, and strives to establish an environmental quality mark to be awarded to its members. It also collaborates with the Croatian Centre for Clean Production which in 2006 started a pilot project on the possibilities for savings in Croatian hotels through the implementation of environmental measures (CRO-CPC, 2006).

It is to be noted that no Croatian law deals with the issue of the use of resources in the hotel industry. The issue is defined in a number of environmental and industry laws. Environment laws deal with the usage of environment factors such as water, soil, the sea, etc. Industry laws, unlike environment laws directed towards general issues, regulate the treatment of specific natural resources, and in particular industries (such as agriculture, fishing, etc.). It is obvious that the operation of the tourism industry (and thus also of the hotel industry) is based on various natural and cultural resources and that it has to comply with the basic principles of environment protection covered in these laws, and particularly by the Act on Environmental Protection (Official Gazette (OG) nos. 82/1994, 110/2007). According to this act (Arts. 150-158), all legal entities (including hotels) are liable for the damage caused by pollution if this results from their operations or negligence. In a hotel, this can be, for instance, the emission of oil, mazut, or excrement into the water, the emission of gas into the atmosphere, the dispersion of asbestos dust, etc. In such cases, the hotel not only settles its own damage but also covers all the costs caused by measures taken to eliminate pollution.

As for measures stimulating the implementation of ecological initiatives and general environmental policy in companies (including hotels), the law provides the possibility to regulate benefits, tax incentives, and exemptions from tariffs for those entities that use less detrimental production procedures (for example, the use of alternative energy resources, the use of environment friendly equipment and appliances) and those that organise the disposal of used appliances or parts of appliances, used products and their packaging, or use other ways to reduce the negative effects on the environment (Act on Environmental Protection, OG nos. 82/1994, 110/2007). It is certain that without the systematic implementation of an environmental policy, and if companies and hotels are not stimulated to adhere to its principles, sustainable development will just be hollow words.

### **Possible Determinants of Hoteliers' Attitudes Towards Environmental Issues**

While the attitudes of hoteliers towards environmental issues appear important (Deng et al., 1992), the possible determinants of hoteliers' attitudes to environmental issues seem less straightforward. Some of the findings from existing research suggest that hoteliers' attitudes towards environmental issues may or may not be a function of various characteristics of the lodging facility, such as its type, size, quality rating, location, trip motive, seasonality, years in business, and ownership type. For instance, in Croatia there appears to be an association between the presence of a written eco-policy and the characteristics of the hotel, such as size,

quality rating, and ownership type (Petrić & Pranić, 2009). Yet, this is in contrast to the survey findings of hotels in Canada (Deng et al., 1992) and Scotland (Kirk, 1998).

In terms of size, since smaller hotels generally face greater constraints (i.e., low environmental awareness, economic barriers, inadequate institutional support, etc.), they may be less prone to protect the environment (Tilley, 1999). Given the usually strong association between the size of the hotel and its quality rating (Kirk, 1998), hotels with superior quality (e.g., 4 to 5 stars) should similarly exhibit more environmentally conscious attitudes. There is also some evidence supporting the notion that small town/rural hotels are more in favour of general environmental policies than their urban counterparts (Deng et al., 1992). With respect to guest type, a hotel catering mostly to business travellers (as opposed to leisure travellers) may perhaps display less concern for the environment. Similarly, seasonal hotels may be more worried about the environment than hotels operating all year round (Petrić & Pranić, 2009). In addition, longer established hotels could be more sensitive to environmental protection as a way to protect their long-term interests (i.e., to retain what attracts tourists). Finally, one may also expect a difference in environmental attitudes between independent and chain-owned hotels (Bohdanowicz, 2005; Green Flag for Greener Hotels, 2001).

## **RESEARCH HYPOTHESES**

In line with the goals of our study, and based on the previous discussion, this study's main research hypothesis and a number of sub-hypotheses are as follows:

- H1: There is a relationship between hoteliers' attitudes towards selected environmental issues and the characteristics of the hotel;
  - H1a: There is a relationship between hoteliers' attitudes towards selected environmental issues and lodging type;
  - H1b: There is a relationship between hoteliers' attitudes towards selected environmental issues and hotel size;
  - H1c: There is a relationship between hoteliers' attitudes towards selected environmental issues and hotel quality;
  - H1d: There is a relationship between hoteliers' attitudes towards selected environmental issues and hotel location;
  - H1e: There is a relationship between hoteliers' attitudes towards selected environmental issues and guest type;
  - H1f: There is a relationship between hoteliers' attitudes towards selected environmental issues and the seasonality of operations;
  - H1g: There is a relationship between hoteliers' attitudes towards selected environmental issues and ownership type;
  - H1h: There is a relationship between hoteliers' attitudes towards selected environmental issues and the length of time that a hotel has been in business.

## **METHODOLOGY**

The sampling frame for this study comprises 671 lodging units (hotels [562], aparthotels [11], tourist resorts [46] and tourist apartments [52]) located in Croatia in January 2009, courtesy of Croatia's Ministry of Tourism (MINT). The actual study sample totalled 310 facilities (46% of the sampling frame), including 210 hotels, 11 aparthotels, 46 tourist resorts and 52 tourist apartments. The 210 hotels in the sample were randomly selected among 562 hotels using the Research Randomizer (2009). The study was carried out during February and March 2009.

The questionnaire was developed through a review of related literature and evaluated by two social science research experts. The survey was pre-tested on two hotels (one small and one large), following which only the correction of a few typographical errors was required. The questionnaire design followed the established guidelines for mail surveys (Dillman, 2000). Thus, prior to mailing the final version of the survey, an email informing the respondents about the source, scope, nature, and date of the approaching survey was sent in an attempt to improve the survey response rate. The email correspondence was conducted using the Mail Merge Wizard, so as to assure respondent privacy and to avoid the appearance of mass emailing.

A two-page self-completion questionnaire written in Croatian was mailed to the General Managers of the sampled hotels. The first part of the survey included 7 multiple-choice questions about hotel characteristics, such as lodging type (hotel, aparthotel, tourist resort or tourist apartment), size (small [ $\leq 50$  rooms/units], medium [51-100] or large [ $> 100$ ]), quality rating (2-5 stars), location (coastal, city, rural, highway, airport or other), guest type (leisure, business or other), seasonality of operations (seasonal or all year round), and ownership type (independent or chain-operated). This section of the survey also included an open question about the length of time that the hotel has been in business that the respondent had to answer.

The second section of the questionnaire featured an 8-item measure of attitude toward environmental issues, including seven items adopted from previous research (Deng et al., 1992) and one new item. Specifically, respondents rated eight statements in relation to the following issues: (1) the need to use natural resources efficiently; (2) the need to preserve the cultural heritage; (3) the need to preserve architectural style; (4) the need for greater control over building and construction; (5) the need to preserve local landscapes; (6) the perception that the local environment is overcrowded; (7) the need for better enforcement of environmental conservation and protection measures and policies; and (8) the perception that existing environmental protection policies restrict business development. All statements were rated on a 5-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

## **RESULTS**

Of the 310 questionnaires mailed, 81 usable surveys were returned, representing an overall response rate of 26%.

### **The Nature of the Sample**

Of the 81 lodging units that returned the survey, the majority were hotels (66 or 81.5%), followed by tourist apartments (6 or 7.4%), tourist resorts (5 or 6.2%), and aparthotels (4 or

4.9%). Thus, the latter three groups were merged together for subsequent analysis, yielding two groups – HOTELS (66 or 81.5%) and OTHER LODGING FACILITIES (15 or 18.5%). In terms of size, two groups were evident – SMALL HOTELS ( $\leq 50$  rooms: 37 hotels or 45.7%) and LARGE HOTELS ( $> 50$  rooms: 44 hotels or 54.3%). In relation to quality rating, 61 (76.2%) were 2-3 STAR HOTELS, while 19 (23.8%) were 4-5 STAR HOTELS. With regard to location, there were 40 (50.6%) COASTAL HOTELS and 39 (49.4%) CITY/URBAN/OTHER HOTELS. As far as the type of guests mainly served by a particular hotel, two groups emerged: LEISURE GUESTS (50 or 64.1%), and BUSINESS/OTHER GUESTS (28 or 35.9%). The analysis further revealed that the majority of hotels (46 or 56.8%) were open ALL YEAR ROUND, while 35 (43.1%) were SEASONAL. In terms of ownership, 58 (71.6%) were INDEPENDENT and 23 (28.4%) were CHAIN-AFFILIATED hotels. The analysis of the length of time that a hotel had been in business showed that there was a skewed distribution with a large number of “younger” ( $\leq 50$  years in business) hotels (83%), and then a broad distribution of hotels with up to a maximum of 123 years in business. Based on the median value of the years that a hotel had been in business (25 years), hotels were divided into two groups for further analysis: 40 hotels (51.9%) with  $\leq 25$  years in business, referred to as YOUNG HOTELS, and 37 hotels (48.1%) with  $> 25$  years in business, referred to as OLD HOTELS.

### **Attitude to Environmental Issues and Hotel Characteristics**

The mean scores and percentages for each of the eight attitude questions are shown in Table 1. As expected, the sample expressed strong agreement on the general need to conserve and protect the environment. This finding most likely mirrors the current sentiment towards environmental issues in contemporary Croatia.

#### **Table 1**

To test if there is any relationship between the characteristics of the hotel and attitudes towards environmental issues, nonparametric Mann-Whitney U (M-W U) tests were used since the data violated two major assumptions - normal distribution and equality of variances. Inspection of the data using the Kolmogorov-Smirnov test and histogram revealed that the data do not follow the Gaussian distribution, that is, they are not normally distributed. Similarly, since the Levene test indicated that the population variances are not equal, the equality of variances assumption was violated. Thus, the M-W U test was selected and data were analysed using the Statistical Program for Social Sciences (SPSS).

The matrix of results based on this analysis (Table 2) shows that hotel characteristics generally do not affect attitudes towards environmental issues. However, there were a few specific statistically significant differences. For instance, seasonal lodging units were more in favour of better enforcement of environmental conservation and protection measures and policies than hotels operating all year round. This and a few other differences are marked by an asterisk in Table 2. Overall, however, the findings presented in Table 2 suggest that all eight hypotheses appear mostly unsupported.

#### **Table 2**



## CONCLUSIONS AND IMPLICATIONS

This article has empirically examined the attitudes towards selected environmental issues in the Croatian lodging sector. It has also investigated the effects of selected hotel characteristics on attitudes to environmental issues. Generally, the sample expressed a strong positive sentiment towards environmental issues. By and large, hotel characteristics – such as lodging type, size, quality rating, location, guest type, seasonality, ownership, and the length of time that a hotel has been in business – did not significantly alter the strength of sentiment felt towards the environment.

Although there were a few instances of statistically significant effects of hotel characteristics on attitudes towards environmental issues, some of these differences probably have few practical implications. For instance, while hotel size is a statistically significant predictor of hoteliers' support for the preservation of local architecture, the observed means for the two hotel sizes (4.84 for LARGE HOTELS and 4.68 for SMALL HOTELS) suggest that both groups highly favour the protection of local architecture. Thus, it must be noted that the differences identified are differences in degree of support, rather than a statement of opposition to environmental protection.

Since environment (i.e., the Adriatic Sea) is Croatia's first and foremost tourism "attraction", it is unlikely that any respondents would say that they were against the idea of protecting the environment. Yet, it would be naive to think that at least some interest groups (e.g., the real estate sector) would not wish to generate more accommodation capacity. However, the fact that the Croatian lodging sector does not instinctively oppose the imposition of building controls – amid problems with pronouncedly high seasonality and questionable profitability (Šunjerga, 2009) – is, in itself, of interest. Equally interesting is the finding that those segments of the industry that appear as the most vulnerable – that is, small, rural, and independent hotels with the least resources – are just as concerned as larger, more profitable hotels. Overall, it seems that if the Croatian government was to impose restrictions on tourism development, the Croatian lodging industry would tend to understand the need for restrictions on its business.

Clearly, the findings in this article could be used for amending, developing and enforcing the environmental protection policies in the Croatian lodging sector. However, prior to employing any environmental policies, the potential costs and benefits for Croatian hoteliers from such eco-policies would need to be investigated in more detail. Equally important would be to look into the actual hindrances to the implementation of environmentally best practices. The findings from such proposed research could provide evidence of good practice and offer advice to overcome common obstacles, which could then be spread to other hotels.

## REFERENCES

- Bohdanowicz, P. (2005). European hoteliers' environmental attitudes: Greening the business. *Cornell Hotel and Restaurant Administration Quarterly*, 46(2):188-204.
- Chan, E.S.W. (2008). Barriers to EMS in the hotel industry. *International Journal of Hospitality management*, 27(2): 187-196
- CRO-CPC-Hrvatska Udruga za čistu proizvodnju. (2006). [http://www.cro-cpc.hr/projekti/projekt\\_hoteli.htm](http://www.cro-cpc.hr/projekti/projekt_hoteli.htm). [Accessed 14 March 2009, 16:28]
- Deng, S.L., Ryan, C. & Moutinho, L. (1992). Canadian hoteliers and their attitudes towards environmental issues. *International Journal of Hospitality Management*, 11(3): 225-237.
- Dillman, D.A. (2000). *Mail and internet surveys: The tailored design method* (2nd ed.). New York, NY: John Wiley & Sons, Inc.
- Eco-label flower. (2009). <http://www.ecolabel-tourism.eu/>. [Accessed 12 August 2009, 14:38]
- EU/Environment.(2009).[http://ec.europa.eu/environment/emas/tools/faq\\_en.htm#compatibility](http://ec.europa.eu/environment/emas/tools/faq_en.htm#compatibility). [Accessed 6 February 2009, 10:36]
- GEMI - Global Environment Management Initiative. (1999). [http://www.gemi.org/resources/IDE\\_004.pdf](http://www.gemi.org/resources/IDE_004.pdf). [Accessed 17 March 2009, 12:34]
- Green Flag for Greener Hotels. (2001). *Final report, LIFE No. ENV/00038/FR*, European Community, Valbonne, France: 35.
- IHRA-International Hotel and Restaurant Association/Members. (2008). <http://www.ihra.com/members/catalogue.php?VARtheme=1&VARcompany=&VARorderby=members.country&Submit=AFFICHER>. [Accessed 3 November 2009, 13:17]
- IHRA, UNEP. (1995). *Environmental good practice in hotels, case studies from the International Hotel & Restaurant Association environmental award*.
- ITP - International Tourism Partnership (2009). <http://www.internationaltourismpartnership.org>. [Accessed 3 April, 13: 30]
- Kirk, D. (1998). Attitudes to environmental management held by a group of hotel managers in Edinburgh. *Hospitality Management*, 17: 33-47.
- MINT. (2009). *Republic of Croatia: List of categorized objects belonging to the group 'HOTELS' - 22 January 2009*. <http://www.mint.hr/UserDocsImages/090223-cop-kat-engl09.pdf>. [Accessed 29 January 2009, 10:25]
- Petrić, L. & Pranić, Lj. (2009). Croatian hoteliers' attitudes towards environmental management. *CD-ROM with Proceedings of the Eight International Conference: "Challenges of Europe: Financial Crisis and Climate Change."* ISSN 1847-4497, Faculty of Economics, Split
- Quazi, H. (1999). Implementation of an environmental management system: The experience of companies operating in Singapore. *Industrial Management and Data Systems*, 99(7): 302-311.
- Research Randomizer. (2008). <http://www.randomizer.org/form.htm>. [Accessed 30 January 2009, 14:30]
- Šunjerga, M. (2009). *Hotels: Increase in quality rating boosts profitability, high seasonality problem*. <http://www.seebiz.eu/hr/tvrtke/turizam/hoteli-podizanje-kategorije-dize-profitabilnost,-problem-je-prekratka-sezona,35766.html>. [Accessed 11 September 2009, 10:15]
- Tilley, F. (1999). The gap between the environmental attitudes and the environmental behavior of small firms. *Business Strategy and the Environment*, 8: 238-248.
- WEC - World Environment Center. (2009). <http://www.wec.org/>. [Accessed 5 February 2009, 9:45]

World Tourism Organization and United Nations Environment Programme. (2008). *Climate change and tourism – responding to global challenges*.  
<http://www.unwto.org/sdt/news/en/pdf/climate2008.pdf>. [Accessed 18 March 2009, 11:33]  
Zakon o hrani. Narodne Novine br. 46/07  
Zakon o zaštiti okoliša. Narodne Novine br. 82/1994, 110/2007

Table 1. Hoteliers' attitudes towards environmental issues

Issue	Strongly disagree				Strongly agree	Mean <sup>2</sup>	Rank	N
	1	2	3	4	5			
The need to use natural resources efficiently	0.0 <sup>1</sup>	0.0	0.0	1.3	98.8	4.99	1	80
The need to preserve heritage	0.0	0.0	0.0	2.5	97.5	4.98	2	81
The need for control over construction	0.0	0.0	3.8	13.9	82.3	4.78	3	79
The need to protect landscape	0.0	1.3	1.3	17.5	80.0	4.76	4	80
The need to preserve architecture	0.0	0.0	6.2	23.5	70.4	4.64	5	81
The need for enforcement of eco-policies	0.0	2.5	8.6	18.5	70.4	4.57	6	81
Overcrowding exists	13.8	22.5	26.3	15.0	22.5	3.10	7	80
Current policies inhibit tourism development	25.9	12.3	35.8	17.3	8.6	2.70	8	81

<sup>1</sup>Valid %

<sup>2</sup>Mean ranging from 1 = *strongly disagree* to 5 = *strongly agree*



Table 2: Relationship between hotel characteristics and attitudes to environmental issues

Item	LODGING TYPE				SIZE				QUALITY RATING				LOCATION			
	Hotel	Other	M-W U		Large	Small	M-W U		2-3	4-5	M-W U		Coast	Other	M-W U	
	$\bar{x}^1$	$\bar{x}$	value	<i>p</i>	$\bar{x}$	$\bar{x}$	value	<i>p</i>	$\bar{x}$	$\bar{x}$	value	<i>p</i>	$\bar{x}$	$\bar{x}$	value	<i>p</i>
Use resources efficiently	4.98	5.00	480.000	.631	5.00	4.97	770.000	.269	5.00	4.95	540.000	.076	5.00	4.97	741.000	.317
Preserve heritage	4.98	4.93	469.500	.249	5.00	4.95	770.000	.121	4.97	5.00	560.500	.427	4.95	5.00	741.000	.160
Control construction	4.65	4.60	447.000	.465	4.75	4.51	678.000	.107	4.61	4.74	513.500	.352	4.75	4.51	645.000	.100
Protect landscape	4.78	4.79	439.000	.757	4.95	4.59	559.000	.001*	4.78	4.79	543.500	.767	4.85	4.71	660.000	.218
Preserve architecture	4.74	4.86	428.000	.535	4.84	4.68	623.500	.017*	4.77	4.74	560.500	.876	4.90	4.62	600.500	.023*
Enforce eco-policies	2.92	3.93	268.000	.012*	3.21	2.97	720.500	.459	2.92	3.63	406.000	.054	3.33	2.90	624.500	.164
Overcrowding exists	4.50	4.87	387.000	.102	4.68	4.43	683.500	.123	4.57	4.58	564.000	.826	4.65	4.46	687.500	.262
Current policies inhibit tourism	2.62	3.07	386.500	.171	2.57	2.86	708.500	.299	2.64	2.84	523.500	.511	2.65	2.77	735.000	.647
N	66	15			44	37			61	19			40	39		

Item	GUEST TYPE				SEASONALITY				OWNERSHIP				YEARS IN BUSINESS			
	Business		Non		Seasonal		M-W U		Chain	Independent	M-W U		? 25	? 26	M-W U	
	Leisure	& other	M-W U		stop	Seasonal	M-W U		$\bar{x}$	$\bar{x}$	value	<i>p</i>	$\bar{x}$	$\bar{x}$	value	<i>p</i>
Use resources efficiently	4.98	5.00	609.500	.514	4.98	5.00	770.000	.378	5.00	4.98	644.000	.525	4.97	5.00	703.000	.330
Preserve heritage	4.96	5.00	609.500	.357	5.00	4.94	759.000	.103	4.96	4.98	649.500	.495	4.95	5.00	703.000	.171
Control construction	4.71	4.43	507.500	.090	4.59	4.71	739.000	.431	4.70	4.62	657.000	.896	4.58	4.68	704.000	.651
Protect landscape	4.80	4.74	620.000	.987	4.76	4.82	724.000	.541	4.87	4.75	597.000	.445	4.63	4.94	527.000	.007*
Preserve architecture	4.83	4.70	558.000	.307	4.67	4.88	666.000	.104	4.83	4.74	596.000	.363	4.75	4.78	650.000	.292
Enforce eco-policies	3.22	2.70	482.500	.114	2.83	3.47	574.500	.039*	3.48	2.95	513.500	.122	3.13	3.19	695.000	.790
Overcrowding exists	4.60	4.52	631.000	.983	4.48	4.69	674.500	.121	4.78	4.48	546.000	.114	4.45	4.65	692.000	.549
Current policies inhibit tourism	2.69	2.74	609.000	.789	2.83	2.54	698.000	.290	2.43	2.81	557.500	.234	2.98	2.54	598.500	.135
N	50	28			46	35			23	58			40	37		

<sup>1</sup> Mean ranging from 1 = *strongly disagree* to 5 = *strongly agree*

\*Significant at  $p < .05$

