

UDK
338.488.2:640.4(437.6)
005.336.3:502

ANALYSIS OF APPROACHES IN THE FIELD OF ENVIRONMENTAL MANAGEMENT IN THE HOTEL INDUSTRY IN SLOVAKIA

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Abstract

The paper deals with the issue of environmental management and the application of its components in the Slovak hotel industry. Selected historical, wellness and spa hotels represented the sample. The primary data were obtained by a questionnaire survey and analysis carried out by appropriate mathematical-statistical methods. Based on the obtained results, we can conclude that all hotels pay some attention to environmental approaches and perceive them primarily from an economic point of view. The most applied approaches are measures to save water, energy, reduce heating and air conditioning costs and reduce and separate waste. The nature of the empirical research study and the scope of the sample under investigation limit the generalization of the research results.

Key words: environmental management, tourism, hotel industry

INTRODUCTION

Environment protection is a frequent topic of discussion at present and is paid great attention in almost all spheres of life. This issue concerns tourist industry as well because we can observe negative effects on environment protection caused by this branch. Hotel industry as a separate domain of tourism is not an exception either, though nowadays it presents great effort to minimise unfriendly effects on environment. More recently, sustainability has become an important issue within businesses, arising from concerns over natural resources depletion, wealth disparity, and social responsibility. “In this regard, hotels at different levels of operation have begun to adopt green management to keep pace with the trend towards “going green” (Ge, Chen S., Chen Y., 2018). “Green businesses adopt green management principles, policies, and practices that improve the quality of life for their customers, their employees, the communities in which they operate, and the environment” (Loknath, Azeem, 2017). “The hotel industry also makes great impact on the environment either directly or indirectly: therefore, certifying hotels for their environmental protection efforts has become a need of the hour” (Fukey, Issac, 2014). Slovak hotels that are members of the Association of Hotels and Restaurants of Slovakia are involved in the IHEI initiative, which IH&RA (International Hotel & Restaurant Association) called “green management”. It is an initiative organized under the auspices of Charles the Prince of Wales and aims to

support the hotel industry's activities to improve the environment by reducing the consumption of all types of energy, using technologies to reduce environmental burdens, reducing waste and reducing emissions (AHRs 2020). Hotels perceive environmental practices primarily from an economic point of view. That is why their main motivator is the reduction of hotel costs.

THEORETICAL BACKGROUNDS

Operation of tourist industry is dependent to a great extent on naturally attractive environment. This sort of environment can be found in the areas which are less used by industrial branches. On the contrary, the population in industrial areas that tend to destroy the environment is motivated to seek the environment which is the exact opposite of their usual surrounding (Palatková, Zichová 2014). One of the main negative effects of tourist industry is air pollution as a result of tourist traffic. Road, railroad and air transport damage the environment and moreover the emission caused by the traffic can cause global warming. Besides traffic, constant pressure on using natural resources is also a negative effect. Excessive use of water sources in arid areas to satisfy the needs of tourist "luxury" or producing waste of any kind leads to gradual environment destruction (Kimpee 2016). Sustainable development of tourist industry is one of the most urgent and widely discussed topics, either both on theoretical and practical basis. It applies the principles of permanent sustainability into the sphere of tourist industry, it is a concept which joins the needs of modern and future generations (Mitríková, Dzuřová 2019). All over the world and also in Slovakia a lot of authors deal with the issue of sustainable development of tourist industry and extensive research concerning various related fields is being done (Budanu 2007; Gúčík, Gajdošík & Lencséssová 2014; Houška 2014; Matušíková, Šambronská 2018; Lee, Han a Willson 2001; Pulindo-Fernandes a Lopéz-Sanche 2017; Wehrli, Egli, Lutzenberger et al. 2011). Hotel industry as one of the areas in tourism industry also has negative effect on environment. Lot of hotels contend with this problem, they integrate measures to protect the environment and thus become "green" (Nijhawan 2017). Attitude towards ecology and the principle of sustainable development belongs to significant trends in accommodation services. Not only big hotel companies follow these trends, but also independent and small hotels try to go "green". In recent years, in accordance with environmental concerns and cost reductions, the number of green hotels is increasing. In addition to the business sector, green hotels have become the object of attention in the scientific field as well (Grubor, Milicevic, Djokic, 2019). According to the explanation of the Green Hotels Association, green hotels are environmentally-friendly properties whose managers are eager to institute programs that save water, save energy and reduce solid waste-while saving money-to help protect our one and only Earth (Green Hotels Association, 2020). The focus on environmental issues gives hotels chances for differentiation and determination of premium prices for their services, in addition to opening new markets. Respectively, the hotelier's

motivation to invest in and implement green initiatives shows to be useful and justified for businesses (Jackson 2010, as cited in Hays & Ozretic-Došen, 2014). Several studies have indicated the economic benefits of going green in the hotel industry, with little or no extra capital. Going green includes various advantages like gaining competitive advantage by being a leader in the sector, customer loyalty, employee retention, awards and recognition, regulatory compliance, risk management, increased brand, value, etc. (Dodds 2008, as cited in Fukey&Issac, 2014).

MATERIALS AND METHODS

The aim of this paper is to present the results of the research aimed at finding out measures of applying elements of ecological management in selected historical, wellness and spa hotels in Slovakia. Implementation of the research itself was preceded by a pilot survey focused on potential sample of hotel facilities. In the first phase a detailed survey of hotel facilities in Slovakia had been done, the numbers of hotels in particular categories and appropriate classes. The starting point for arranging the final research sample was the assumption that historical, wellness and spa hotels in Slovakia regarding their specification have strong motivation to be environment friendly. 116 accommodation facilities had been selected for the questionnaire research. 16 historical hotels which are the members of the Association of Historical Hotels in Slovakia, 50 wellness hotels and 50 spa hotels had been appealed.

Table 1: Distribution of the research sample according to the hotel classification

	1 Star	2 Stars	3 Stars	4 Stars	5 Stars
Historical Hotels	1	8	7	0	0
Wellness Hotels	2	31	16	1	0
Spa Hotels	1	15	29	5	0
Σ	4	54	52	6	0

(Source: authors' processing)

The theoretical basis of the studied issues had been worked on from the sources of domestic and foreign scientific literature. Primary data had been gained by the questionnaire research done in November and December 2019. Non-standard questionnaire was e-mailed to selected hotels. Out of the total number of 116 appealed hotels 64.7 % responded, 75 of them filled in the questionnaire and sent it back to us. So 75 hotels made up the basic set for realising the analysis, 16 % (n=12) are historical hotels, 35 % (n=26) spa hotels and the rest 49 % (n=37) belong to the category of wellness hotels. Research questions and hypothesis:

Research question No 1: Is there a difference in the opinions for implementation of individual elements of ecological management regarding the hotel classes?

Zero hypothesis 1H₀: Hotels of different classes have identical opinions for the implementation elements of ecological management in hotel industry.

Alternative hypothesis 1H₁: Hotels of different classes have different opinions for the implementation elements of ecological management in hotel industry.

Research question No 2: Is there a difference among hotels in applying elements of ecological management regarding their category?

Zero hypothesis 2H₀: Implementation of elements of ecological management is the same in all hotel categories.

Alternative hypothesis 2H₁: Applying elements of ecological management is different in different hotel categories.

Research question No 3: Is there a difference in the number of applied elements of ecological management regarding the class of a hotel?

Zero hypothesis 3H₀: Hotel class does not have any effect on the number of elements of ecological management.

Alternative hypothesis 3H₁: The class of a hotel has an impact on the number of elements of ecological management.

In the process of working on primary data gained from individual respondents we used chosen mathematical and statistical methods such as descriptive statistics (frequency, percentage, authoritative deviation, average, chi-square test (χ^2) and Student t-test). Acquired primary data were worked on by means of computer programs MS Excel and Statistica. The testing was accomplished on the level of signification $\alpha = 0,05$, that is on 95 % probability.

RESULTS AND DISCUSSIONS

54.67 % (n=41) of appealed hotels consider implementation of ecological management in hotel industry to be a responsible attitude towards environment. The second most frequent view is that it is an individual chose this outlook. 17.33 % (n=13) of respondents consider it to be inevitable. Only 5.33 % (n=4) appealed respondent regard implementation of elements of ecological management a tool of competition. This question was a part of the determined hypothesis 1 within the framework which we studied whether the hotel class makes a difference in the view on applying individual elements of ecological management. This results is presented in the following graph.

Graph 1 Opinions of implementation of elements of ecological management according to hotel class

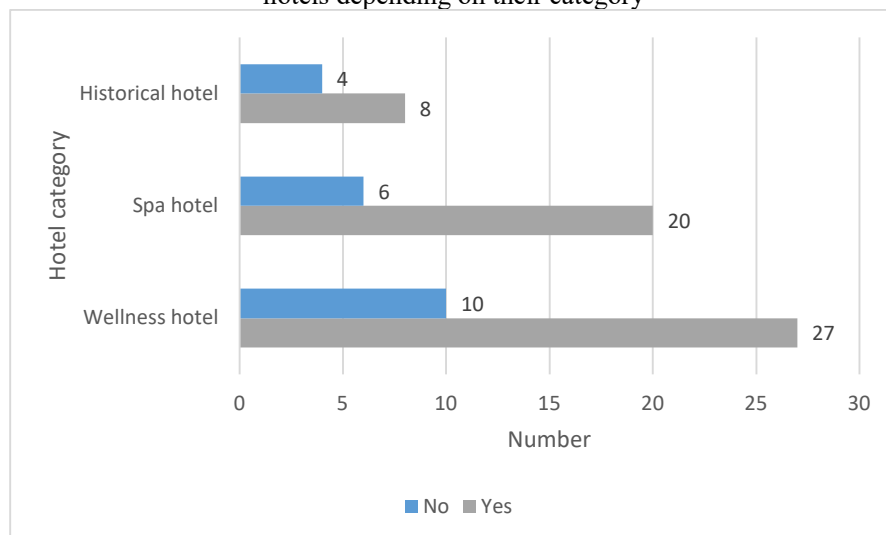


(Source: authors' processing)

4 stars and 3 stars hotel categories present “responsible attitude toward environment”. We decided to accept or to reject zero hypothesis on the basis on testing having acquired data by chi-square test. The result of the test was p -value = 0.129. We consider the result to be statistically irrelevant as $0,129 > \alpha = 0,05$ (test level of significance) and counted value $\chi^2 = 16,8 < \chi^2_{0,05} (9) = 16,919$. We compared the counted value on the basis of statistical tables with the limit value chi-square test at the 9th degree of freedom and 5 % level of significance and according to this base we accept zero hypothesis H_0 , that is “Hotels of different classes have identical opinions for the implementation elements of ecological management in hotel industry”. We can state that it is important for all hotels regardless their classes to be informed that ecological management as such is a system of managing a hotel aimed at environment protection meaning sustained development on a local and also on regional and global levels.

Then we found out whether the appealed hotels had already applied elements of ecological management in their operations. According to the results 73 % (n=55) of the addressed hotels had already implemented the elements in their operation. The answer of the rest 27 % (n=20) respondents was negative. They do not have any experience with implementation of ecological elements. This question also helped us look into the facts whether there is a difference among particular hotels in applying the mentioned elements of ecological management depending on their category. That is why this question became a part of our formulated hypothesis 2. The following graph shows the results of obtained data.

Graph 2: Applying elements of ecological management into the operation of hotels depending on their category



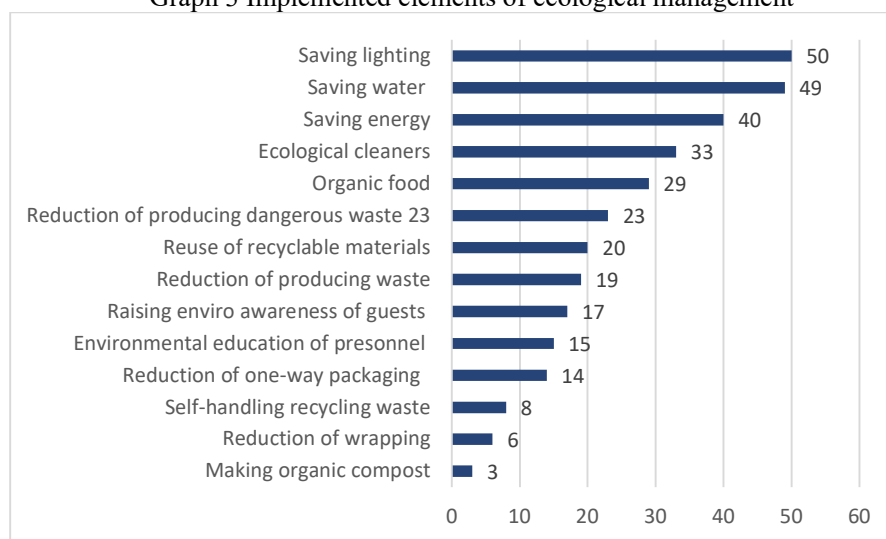
(Source: authors' processing)

The highest number of accommodation facilities that have already applied elements of ecological management into their operation are wellness hotels. They sum up to 36 % (n=27). We decided to accept or to reject zero hypothesis $2H_0$ testing the data by means of statistical method chi-square test. We received the result $p\text{-value}=0.80$. Since $0,80 > \alpha = 0,05$ (test level of significance) and counted value is $\chi^2 = 0,447 < \chi^2_{0,05} (2) = 5,991$ we state that the result is statistically irrelevant. Subsequently we compared the counted value based on of statistical tables with the limit value chi-square at the 2nd degree of freedom and 5 % level of significance. That is why we accept zero hypothesis $2H_0$, that is: "Implementation of elements of ecological management is the same in all hotel categories". The obtained outcome shows that, regardless the hotel category, the first step in applying ecological management should be the summary of starting values, the fact how a hotel effects he environment. Before starting implementation, the hotel should start measuring the amount of used energy, water, producing waste etc. such an outcome could be a starting point in the future not only for improving the given state but also in applying ecological management. Realising the importance of application of ecological management in hotel industry in Slovakia is urgent since we have only two officially certified ecology – friendly hotels – Eco-friendly Hotel Dália in Košice and the Hotel Bojnický Vínny Dom (Bojnice Wine House).

Further on we wanted to know which of the determined elements of ecological management had already been applied. A several possible answers could be given to this question, the total summary of answers does not correspond with the

number of respondents (n=55) which was taken into consideration in this questionnaire section. The respondents could give their own answers, but none of them had done so. The following graph shows the amount of particular answers.

Graph 3 Implemented elements of ecological management



(Source: authors' processing)

100 % (n=55) of hotels stated that they recycle the waste and 90 % (n=50) stated that they reduce lighting. Saving water followed – 89 % (n=49) addressed hotels. On the other hands the lowest number of respondents denoted self-handling recycling waste as an element of ecological management (8 respondents). 6 hotels marked the element dealing with reduction of wrapping. Only 3 hotels make organic compost. As it has been mentioned, applying the elements of ecological management hotels must educate the hotel personnel in this issue and also motivate the hotel guests to considerate attitude towards the environment and thus raise their environmental awareness. However, only 15 hotels out of the total number of respondents practise environmental education and raising environmental awareness of guests is a priority for 17 hotels. This question was a part of the hypothesis 3. In its boundaries we found out the difference in the number of applied elements of ecological management depending on hotel category. We decided to accept or to reject zero hypothesis $3H_0$ based on the testing data by means of the method chi-square test. Based on implementing the test we received the result of $p\text{-value}=0,653$. Since $0,653 > \alpha = 0,05$ (testing level of signifiacnce) and calculated value $\chi^2 = 26,919 < \chi^2_{0,05} (28) = 41,337$, we consider the result to be statistically irrelevant. We compared the calculated value on the basis of statistical tables with the boundary value of chi-square at 28 degree of freedom and 5 % level of significance. On this basis we accept zero hypothesis $3H_0$, that is “Hotel class does not have any effect on the

number of elements of ecological management”. The hotel class (3*, 4*, 5*) does not effect the number of ecological elements. In our opinion, the decision which elements of ecological management a hotel will implement depends on the decision of the hotel management, economic state and some other factors. Based on the obtained results we can state that hotel class does not have any effect on this decision.

CONCLUSION

Based on accomplished research we can state the explored hotels pay attention to applying principles of environmental management into their operation. Majority of them consider environment protection, demonstration of responsible approach and implementation of environmental marketing into the hotel management essential. Almost all the examined hotels stated that they had already implemented saving energy. Saving water, reduction, separation and recycling waste, using ecological cleaners and organic food are being applied. The most important motivating factor appealing implementation of ecological elements and priority for those hotels is operation costs saving and also environment protection. Hotels of different categories have identical view on implementation element of ecological management, they are the same in all categories – historical, wellness and spa hotels. Hotel class does not have any effect on the number of applied elements of ecological management. Although on the basis of the size of representative sample it is not possible to pronounce any general proclamation, this current issue provides a lot of possibilities and much space for further research in this area.

ACKNOWLEDGEMENT

This contribution presents some result from research project VEGA no.1/0470/18 “Economic Activity of Tourism in the European Area”.

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