

The application of sustainable development principles in practical functioning of hotel establishments in Poland based on the example of Lower Silesia region

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Abstract

The general idea of sustainable development in tourism presents itself in such development which facilitates meeting the needs of tourists and, at the same time, ensures natural environment protection, as well as allows the inhabitants of tourism reception regions to carry out their economic objectives. It combines current and future needs of society members. It seems that the growing number of business entities actively join in this strategic stream and notice the problem of consequences which results from their functioning focused on environmental targets. This also refers to tourism companies, including hotels, of which owners or managers should especially incorporate, in their activities, the philosophy of social responsibility and the principle of sustainable environment. Many managers of hotel establishments declare the above attitude, however, the question arises whether it goes in line with practice? Do these entities actually implement sustainable oriented practices in their functioning? The scientific objective of the presented article is an attempt to provide a reply to the question at what stage of implementing the mentioned above concept do Polish hotel enterprises find themselves at present.

Key words: *sustainable development, hotel business, tourism enterprise.*

JEL Classification: *Q01 - Sustainable Development, L83 - Sports; Gambling; Recreation; Tourism.*

Theme: *Competitiveness and Sustainability in Tourism Industry.*

1. The core concept and features of hotel establishment orientation towards sustainable development

Professional literature is abundant in such phrases as: sustainable business, sustainable enterprise, sustainable development of an enterprise, used interchangeably. According to The Evergreen Group sustainable business is carried out in an ecologically responsible way, in the process of which products and processes do not incur negative consequences in the environment. The Centre for Sustainable Enterprise at the University of North Carolina defines a sustainable enterprise as the one implementing the strategy of obtaining economic advantages, exploring ecological and social challenges as business opportunities and minimizing negative social and ecological impacts. Representatives of the World Business Board for Sustainable Development claim that sustainable development, in case of an enterprise, means accepting such business strategy and activities, which result in meeting current needs of this enterprise and its stakeholders and, at the same time, protect, preserve and strengthen human and environmental resources, which will be indispensable in the future (Sidorczuk-Pietruszko, 2005).

One has to agree with the statement presented by E. Sidorczuk-Pietruszko, that sustainable development cannot be accomplished at the level of singular, isolated enterprise or a sector. At the level of microeconomics sustainable development should rather be considered as a certain philosophy of acting, which should be accepted by particular economy actors, including consumers, enterprises and other organizations (Sidorczuk-Pietruszko, 2005).

In case of hotel establishments, which in mountainous regions cannot function separately from the advantages of local nature, the application of sustainable development principles is of paramount importance for them. It is hard to imagine that a hotel situated in the area ecologically degraded could become successful at the market. Therefore, hotel establishments should recognize economic, social and environmental issues as equally important.

2. The measurement of advancement level in sustainable development principles implementation with reference to hotel establishments

As it has already been mentioned, the orientation towards sustainable development is concentrated on an enterprise's full involvement in projects focusing on limiting negative impacts on natural and social

environment. It consists in conscious economic activity playing a stimulating role in the process of maintaining social, economic and natural order in the environment. Therefore, the scope of tasks performed by an enterprise is extended by that of taking responsibility for the environment. It is reflected in the practice of a hotel establishment functioning which, in consequence, results in the implementation and application of the defined rules and solutions for the benefit of a broadly understood environment. Their approval translates itself into implementing the system of environment oriented management.

In order to find out if a given hotel establishment is oriented towards sustainable development, a review should be performed in order to identify whether and to what extent it does apply the mentioned above principles in its functioning. It is carried out by obtaining information about the mission and the policy of an enterprise, the practices followed in the hotel, as well as the carried out tasks and functions. The measurement of hotel establishment's orientation towards sustainable development will, therefore, consist in defining the importance of activities focused on establishing its proper relations with the environment.

Different techniques may be applied in the process of data collecting, eg. an observation, an interview, a survey. The most frequently used technique, mainly due to economic and time saving reasons, turns out to be the survey technique. Sometimes it takes the form of a categorized interview, i.e. a conversation conducted on the basis of a standard questionnaire consisting of questions and answers.

While analyzing the issue of orientation towards sustainable development, the questions are usually addressed to hotel management, since it is responsible for decisions related to sustainable development implementation and also has the information which are not available for lower level personnel.

Professional literature offers certain indicators in this matter. They mostly measure the influence of enterprise activities, mainly an industrial one, on natural environment. The suggestions of such measuring indicators are included in the mentioned above ISO standards, series 14000, EMAS and GRI (Global Reporting Initiative), as well as in the publications of, among others: T. Borys, A. Adamczyk and B. Poskrobko. Not all of these measures may be directly applied in tourist enterprises, including hotels. They should be modified prior to their application, bearing in mind the specific nature of tourist activity, focused on services. In such a case, adding ecological attributes to an immaterial product refers mainly to its programming, constructing and consuming phases, out of which the latter two occur at the same time and in the same place. Significantly fewer suggestions refer to measures which help in specifying the advancement of progress in the sphere of enterprises' orientation towards sustainable development. Obviously, it is an undeniable fact, that they are made up of the mentioned above measures which analyze ecological aspects of an enterprise functioning. In literature, the evaluation of the extend to which an economic entity managed to implement the system of environmental management usually takes the descriptive form. Such example is quoted in publications by I. Jędrzejczyk.

The analysis of hotel establishments' orientation towards sustainable development requires researching a few dimensions of this phenomenon. Within the framework of these dimensions there are constructed certain methods of their presentation. While studying pro-ecological orientation of hotel management the following areas should be evaluated (Tab. 1):

- awareness and attitude of management towards pro-ecological activities,
- planning and organization in the functioning of an enterprise,
- the process of providing hotel services,
- the process of improving pro-ecological performance.

The attributes characteristic for a given dimension may be described by means of points. A bigger number of points means that a given enterprise is better oriented towards sustainable development. In such a case the progress level related to pro-ecological (PE) concept implementation may be measured by an aggregated indicator which takes the form of the share of points obtained by a given hotel out of an overall number of points possible to score:

$$PE = \frac{P_x}{P_{\max}}$$

where:

PE – the indicator of pro-ecological concept implementation advancement in a hotel

P_x – number of points scored by the studied hotel establishment,

P_{\max} – maximum number of points possible to obtain.

It is worth noticing, that the pro-ecological concept implementation advancement (PE) in a hotel may be included in the range from 0 to 1, where 1 means full implementation of pro-ecological concept – an exemplary hotel, while 0 means total absence of pro-ecological activities. Having assumed, quoting I. Jędrzejczyk (Jędrzejczyk, 2000), that the path heading towards full implementation of environmental oriented management commences at the stage of “Eco-standard” and goes through the stage of “Eco-action” towards the, so called, “Eco-specialization”, it is possible to define, by means of the suggested PE indicator, at what stage the analyzed hotel establishments find themselves.

Table 1. Areas and methods for the presentation of an evaluation of hotel establishment orientation towards sustainable development

Evaluation dimension	The method of measure presentation (evaluated in points)
1. Awareness and attitude of management towards pro-ecological activities	<ul style="list-style-type: none"> – managers' attitude to the concept "sustainable tourism" (5 points if the attitude follows the idea of sustainable tourism) – reasons for sustainable development implementation (5 points for the choice following the idea of sustainable development) – self-evaluation of knowledge and the knowledge of staff regarding sustainable development principles (number of points depending on the level of evaluation, the higher the knowledge, the more points obtained) – hotel's participation in projects for the benefit of the environment (number of points depending on the type of participation – as an organizer 5 points)
2. Planning and organization in the functioning of an enterprise	<ul style="list-style-type: none"> – priority given to pro-ecological activities in hotel's mission, strategy and promotional materials (5 points for establishing due provisions in writing) – defining environmental policy (10 points) – documentation of environmental policy by means of a due certificate (5 points for each certificate and 1 point for taking up activities in this matter) – establishing an organization unit, in the hotel organizational structure, responsible for creating relations between the hotel and environment (5 points) –
3. The process of providing hotel services	<ul style="list-style-type: none"> – number of environmentally friendly solutions in a hotel (1 point for each solution regardless of its significance for the environment) – incorporating clients into pro-ecological activities (1 point for a solution) – the application of ecological criteria when selecting a supplier (5 points) – organic food served in a hotel restaurant (5 points) – preparing an eco-balance and measuring environmental influence (10 points)
4. The process of improving pro-ecological performance	<ul style="list-style-type: none"> – the presence of solutions in motivation systems which stimulate staff efforts for the benefit of environment (5 points) – staff trainings in the domain of ecological problems (5 points) – pro-ecological investments (10 points) – obtaining financial aid for pro-ecological investments form special sources, like Regional Fund for Environment Protection, or Eco-fund (5 points)
Maximum number of points	110 points

Source: Authors' compilation

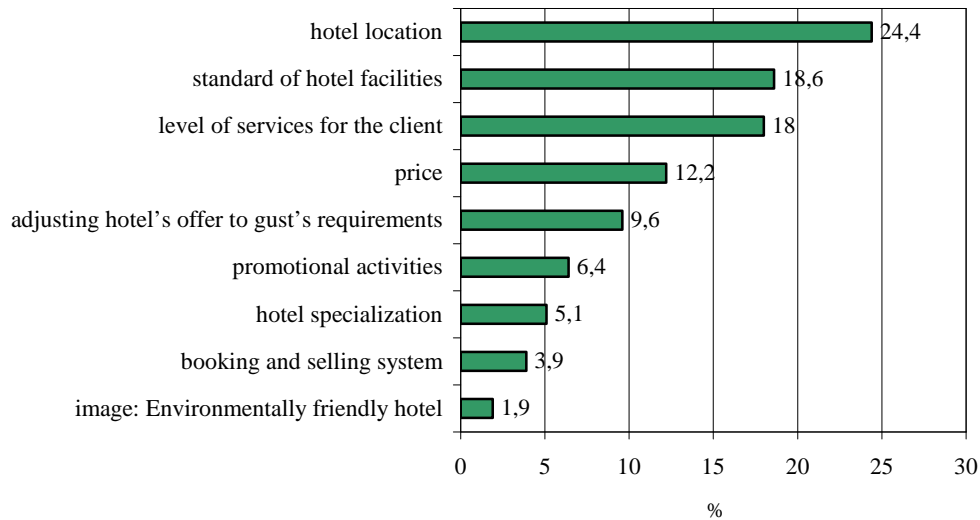
PE indicator in the range from 0 to 0,4 means "Eco-standard" ie. the adjustment of an enterprise, at a minimum level, to environmental standards imposed by legislation. The indicator in the range from 0,41 to 0,8 informs about the hotel's voluntary involvement in certain environmentally friendly actions, sometimes pretended ones, but aimed at the improvement of its image among competitive establishments. This is the stage of "Eco-action". Finally, the indicator in the range from 0,81 to 1,0 informs about "Eco-specialization" of an enterprise, ie. considering ecological criterion as the quality basis. Ecological awareness in such enterprise results in an overall reconstruction of the system of values, permanent changes in an enterprise culture and winning the leading position at the market.

3. Orientation towards sustainable development in selected hotels of Lower Silesia region – pilot survey

In order to define pro-ecological attitude of hotel establishments' owners and managers survey studies were planned for the first half of 2008 in 70 hotels situated in attractive tourist locations of Lower Silesia region.

Positive answer stating the willingness to fill in questionnaires was received from 49 establishments (ie. 70%). The research sample included hotels situated, among others, in: Karpacz, Szklarska Poręba, Świeradów Zdrój, Jelenia Góra and Wrocław. The questionnaire, which constituted the basis for the evaluation of analyzed problem included 22 questions facilitating the identification of the surveyed hotels' orientation. The questions included in the questionnaire referred directly to issues presented in table 1, enclosed in the previous part of the article.

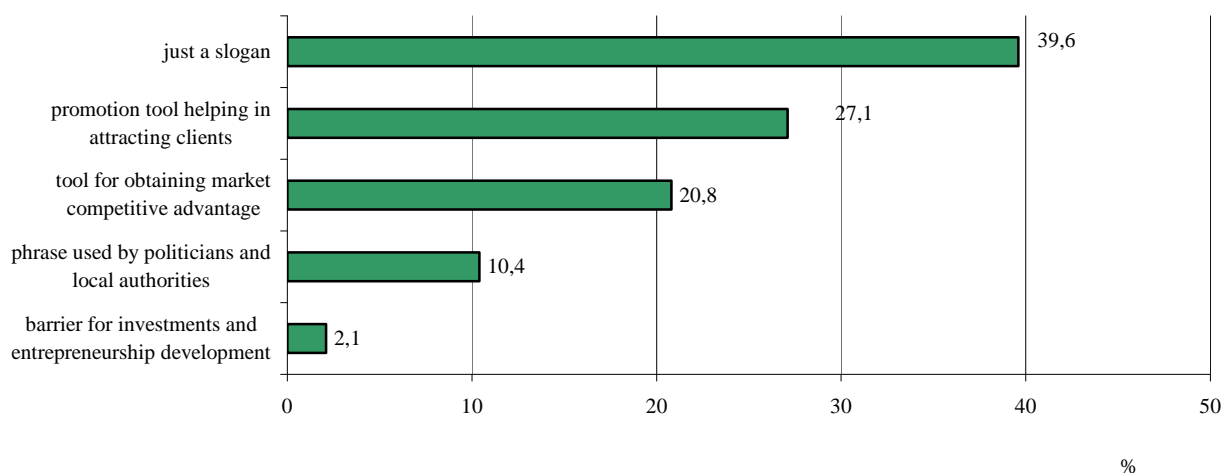
According to the opinion of hotel managers, the position of a hotel at the tourist market is decided by three crucial factors: hotel location (24,4% indications), standard of hotel facilities (18,6% indications) and the level of services provided for guests (18% indications). Less than 2% of the surveyed managers were of the opinion that at the current Polish tourist market the image of an environmentally friendly hotel does have an important influence on its market position (Picture 1). About 40% of hotel managers also indicated that the phrase *sustainable tourism* is just a cliché, not implemented in real life practice.



Picture 1. Factors decisive for the hotel market position

Source: Authors' compilation

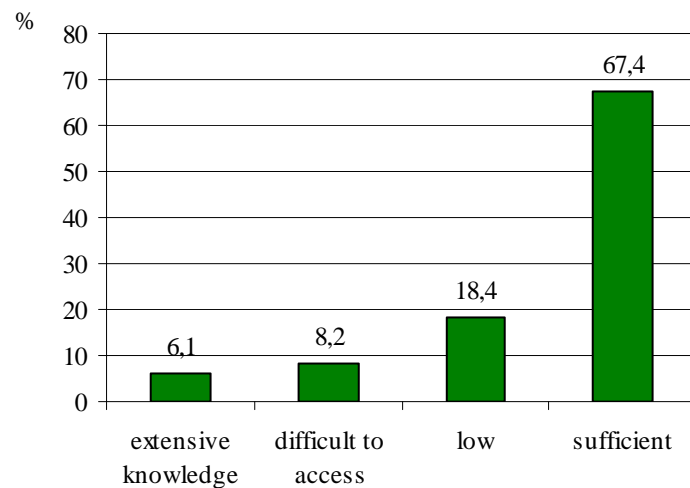
One third of the surveyed respondents did, however, consider this phrase as a good advertising highlight, helpful in attracting guests and standing a chance in the future to become the tool for obtaining competitive advantage at the market (20,8% responses). Entrepreneurs also do not consider sustainable principles as the barrier for investments and entrepreneurship development (Picture 2).



Picture 2. Respondents' attitude towards the phrase "sustainable development"

Source: Authors' compilation

It is probably connected with the fact that 67,4% of surveyed managers claim that their knowledge regarding sustainable development principles is sufficient (Picture 3).

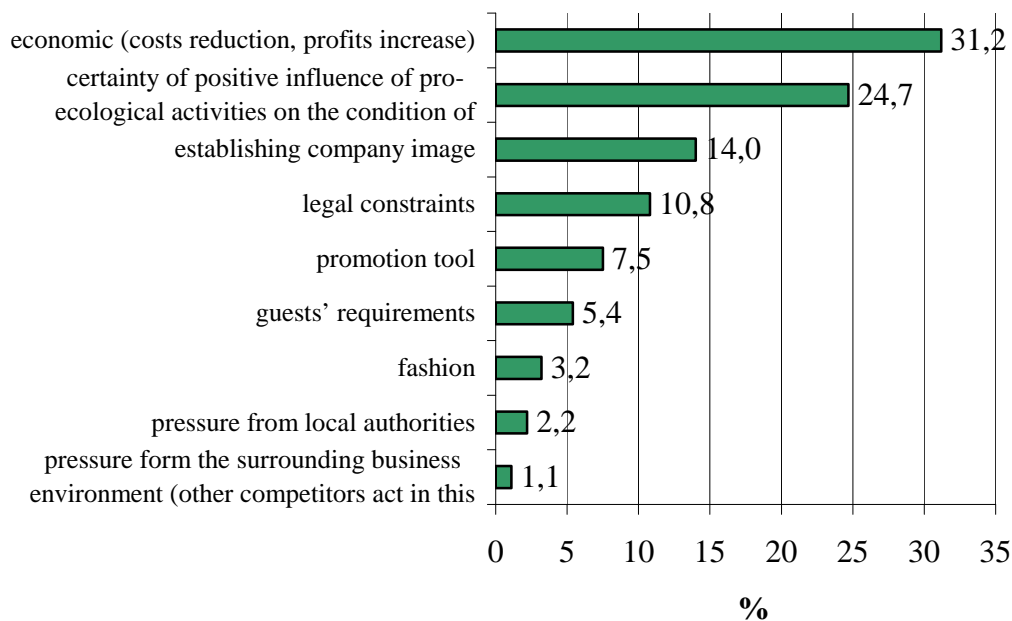


Picture 3. Self-evaluation of knowledge about sustainable development principles

Source: Authors' compilation

Certain inconsistency manifests itself in responses given to this question. The majority of hotel establishments do not have their own pro-ecological policy, however, they expect it from others. Among the surveyed hotels, the prepared and applied pro-ecological policy in as many areas of hotel functioning as possible, is characteristic for as few as 10,2% of establishments. In the selected areas of hotel functioning pro-ecological policy is applied by 18,4% of hotel establishments. Among such hotels there are these representing international hotel systems, as well as the objects which belong to the SPA segment of hotels. It is also worth pointing out that almost 1/3 of the surveyed hotels do not see the need to define and implement pro-ecological policy.

Among the incentives for pro-ecological policy application in hotels' functioning, the most frequently mentioned factors were economic ones, associated with the reduction of costs and an increase of profitability (31,2% of respondents), as well as the certainty that pro-ecological activities have positive influence on the state of the environment (24,7% of respondents). These are conscious activities, aimed at bringing certain specific advantages for the benefit of a hotel establishment (Picture 4).



Picture 4. Incentives for the application of pro-ecological policy in the surveyed hotel establishments

Source: Authors' compilation

These establishments do not create their image on this basis. It manifests itself in their lack of involvement in projects for the benefit of environment.

As the most frequently applied and environmentally friendly solutions in the surveyed hotels the following major activities should be mentioned: power saving (lightening and power saving devices, providing insulation for heat loss and air-tight windows), water consumption savings and limiting excessive production of waste. Most often such solutions are implemented which do not require bigger investments and significantly influence the reduction of hotel functioning costs. The more expensive the investment the fewer hotels do implement it. The above activities are presented in detail in table 2.

Table 2. Environmentally friendly solutions applied in the surveyed hotels

No	Environmentally friendly solution	Percentage of hotels applying the solution
1.	application of power saving lightening	67,3
2.	economical behaviours when doing laundry or washing up (eg. using minimum quantity of washing powder, devices work at full load, adjusting washing cycle to the degree of how dirty the laundry is)	55,1
3.	watering green areas in the evening to lessen evaporation	53,1
4.	insulating the building (for heat loss, air-tight windows)	53,1
5.	limiting excessive production of waste by purchasing products in large packaging, return packaging or multiple use ones (biodegradable)	51,0
6.	water consumption monitoring and searching for opportunities of saving it	50,0
7.	systematic control of water consumption devices to avoid leakages	46,9
8.	adjusting lightening sources to the room function	46,9
9.	using energy saving devices	46,9
10.	application of heating systems which limit the emission of pollution (eg. gas or electric systems)	44,5
11.	waste segregation by personnel	44,5
12.	taking maximum advantage of natural sunlight	44,5
13.	automatic switch off of unnecessary devices and lightening (eg. motion sensors)	42,9
14.	adjusting room temperature to its function	38,8
15.	installing devices regulating water intake (eg. water intake and stream regulators, photocells, time set taps, eco-toilets)	38,8
16.	using detergents which do not contain harmful chemicals	36,7
17.	growing local and resistant to drought plants around the hotel	36,7
18.	application of magnetic cards to switch on a device or lightening in a room	26,5
19.	application of plant and animal fat separators	26,5
20.	using proper lightening casings and their systematic cleaning	20,4
21.	application of devices for controlling illumination intensity (eg. less intensive night illumination of communication paths and the application of sector lightening)	20,4
22.	reusing water for eg. watering lawns	14,3
23.	application of devices limiting the volume of waste (eg. crushers)	8,2
24.	sewage treatment plant owned by a hotel	6,1
25.	utilizing rain water for hotel needs	6,1
26.	application of energy restoring sources (eg. biomass, solar batteries, geothermal energy, heat pump)	6,1
27.	processing waste to be reused (eg. composting)	6,1
28.	application of accumulators instead of batteries	6,1
29.	systems for recovering steam from devices	2,0

Source: Authors' compilation

Hotel establishments also attempt to encourage hotel guest to behave in an environmentally sound manner. Most frequently used solutions consist in changing towels and bed sheets on guest's demand and not every day, or serving drinks in glass, return bottles instead of single use ones. These are the simplest and the least absorbing solutions for the guests, as well as the cheapest in their application and the most effective in functioning. Activities targeted at the purchase of such devices as eg. hand dryers, or liquid soap dispensers are used by hotels much less often, as it is presented in table 3.

Table 3. Environmentally friendly solutions applied in the surveyed hotels and involving guests

No	Environmentally friendly solution	Percentage of hotels applying the solution
1.	changing towels and bed sheets on guest's demand	75,0
2.	drinks in glass, return bottles	60,4
3.	liquid soap, shower gel, shampoo dispensers instead of single use items	37,5
4.	eco flash buttons in toilets	37,5
5.	information in rooms instructing guests about pro-ecological behaviour	29,2
6.	substituting paper towels with hand dryers	18,8
7.	engaging guests in trash segregation	8,3
8.	installing time-set showers	6,3
9.	other	10,4

Source: Authors' compilation

Almost one third of the surveyed hotels did not carry out any pro-ecological investments. Among major barriers (picture 12) for the implementation of environmentally friendly solutions hotel managers mention economic barriers (35,5% of respondents) and information ones (21,3% of respondents).

On the basis of conducted surveys and answers given by hotel managers it is possible to calculate the suggested above indicator for pro-ecological concept implementation advancement in a hotel establishment. The results are presented in table 4. They indicate that none of the surveyed hotels applies pro-ecological principles and solutions to the extend which will allow us to consider it as having reached the "Eco-specialization" stage, while 14 surveyed hotels find themselves at an "Eco-action" stage in their environment oriented activities.

Table 4. Number of hotel establishments divided into stages of sustainable development orientation implementation

Stage of sustainable development implementation orientation	Indicator's value		Number of hotels	
Eco-standard	< 0,40	< 0,2	14	35
		0,21-0,40	21	
Eco-actions	0,41-0,80	0,41-0,50	10	14
		0,51-0,70	2	
		0,71-0,80	2	
Eco-specialization	0,81-1,00		-	-
Mean indicator value for all surveyed hotels	0,31			

Source: Authors' compilation

The highest scores in this group were obtained by Mercure Panorama hotel in Wrocław (indicator value 0,78) and Malachit Medical SPA hotel in Karpacz (indicator value 0,73). These hotels are approaching the stage of eco-specialization. The indicator value ranging between 0,51 and 0,7 was obtained by Sofitel Wrocław Old Town hotel (0,55) and Stanisław Palace hotel (0,51). While the indicator below 0,10 indicating total lack of hotels' interest in sustainable development issues was registered in Wiktoria, Kryształ and Bosman hotels in Szklarska Poręba and Cieplicka Harenda hotel in Jelenia Góra.

4. Final remarks

The results of conducted research allow for the conclusion that the concept of sustainable tourism, with regard to hotel establishments, is taking up a realistic shape. More and more hotels, and to an extensively broader range, do implement environmentally friendly solutions and systems. Among the surveyed hotels, although such examples are scarce, there are also these which have developed their own pro-ecological policy. It, however, has to be pointed out that these activities are mainly stimulated by the economizing and costs reduction motive of hotels' functioning rather than environmental concerns, or life quality of future generations.

Research results also facilitate the conclusion that the phrases: sustainable tourism and an environmentally friendly hotel, are used only marginally as the marketing tool or for the construction of positive hotel images in

the eyes of clients. It results mainly from the absence of pressure in the business environment to invest in eco-friendly orientation of hotels. The interdependence between company functioning and market requirements is simple. As long as the market does not exert sufficient pressure, hotel establishments will not recognize pro-ecological orientation as the marketing tool.

Finally it is worth mentioning, that having evaluated the level of sustainability in Polish tourism from the perspective of pro-ecological behaviour of the surveyed hotel establishments, it has to be diagnosed as quite low. Polish tourism economy still finds itself at the threshold of implementing the theoretical concept of sustainable development. Nevertheless, the progress in this respect is noticeable, seems rather slow but at the same time long lasting.

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