

## GREEN HOTEL PRACTICES IN 5-STAR HOTELS IN SERBIA

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### Abstract

*The hotel sector uses a lot of resources which affects the increase in business costs, but also the pollution of the natural environment. In modern business, green business practice in the hotel industry is seen as a concept that can increase efficiency, reduce business costs, increase profitability, and raise competitiveness, but at the same time reduce negative impacts on the environment. The paper aims to investigate green business practices in 5-star hotels in Serbia. The survey covered 16 hotels. The application of green business practices was analyzed, as well as guest comments related to the application of this business policy.*

Key Words: *green hotels, green practice, 5-star hotels, Serbia*  
JEL classification: *D11, M21, M31, Z30.*

### Introduction

In recent years, the hotel industry has applied a wide range of green business practices to reduce its impact on the environment. Also, this policy is the result of the growing concern of the modern consumer for the preservation of the environment (Merlia et al., 2019). Tourism globally produces about 8% of greenhouse gases (Lenzen et al., 2018). Estimates are that in the next 25-45 years, tourism consumption of energy, land, water and food will be doubled (Gossling & Peeters, 2015).

While „tourism has an impact on climate change and climate change has an impact on tourism“. Global warming, destruction of natural resources

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and the environment negatively affect the development of tourism. The issue of business sustainability is in the focus of business policies and strategies in tourism. The accommodation sector as part of the tourism industry contributes to the emission of harmful gases by around 20% from tourism. Hotels are the most important form of accommodation, but also the biggest consumers of energy and water in everyday business (Han et al., 2018). On the other hand, consumers become aware of these problems and demand ecological business. Accordingly, more and more hotels are adapting to these requirements by introducing green business practices into their operations. Thus they become green hotels or environmentally friendly hotels (Verma & Chandra, 2016).

### **Green hotels**

Green hotels can be defined as: „pro-environmental lodging properties which implement different green practices such as saving water and energy, reducing the solid waste, and recycling and reusing the durable service items (e.g., bins, towels, etc.) to protect the earth we live in“ (Green Hotel Association, 2012; Kim & Han, 2010; Sekulić & Maksimović, 2013).

Building a hotel requires a huge exploitation of resources such as land, water, building materials (sand, iron, cement) and the like. The hotel business itself involves the consumption of a large amount of products such as cleaning agents and chemicals, various foodstuffs, electronic equipment and devices, etc. Conventional hotels may harm the environment by using excessive amounts of water, electricity for heating and air conditioning, and non-recyclable materials. (Radwan et al., 2010, Sekulić & Maksimović, 2013).

The implementation of the green strategy in the business policy of the hotel implies that practically everything is subordinated to ecology, starting from the food served (healthy food) to the equipment and inventory in the room, which are produced according to ecological standards. For example, guests no longer receive shampoo in their rooms in plastic bags, or they are subject to recycling and they can classify used items themselves in specific waste baskets. In terms of construction, green hotels are built from natural materials, without asbestos, formaldehyde, chipboard, glass wool, various unhealthy mineral fibers, synthetic warm floors, itisone, and other unnatural and unhealthy

materials that are incorporated in conventional hotels (Sekulić & Maksimović, 2013).

Hotels can have several different environmental certificates and meet different environmental standards. One of the environmental certificates in the hotel industry is ISO 14001, which establishes the requirements for the environmental protection management system. The ultimate goal of meeting these standards is to prevent environmental pollution through organized protection. Leader in „Energy and Environmental Design (LEED)“ is a standard that applies to all aspects of hotel construction, such as: how much recycled materials were used in the construction, how much energy the building consumes and produces, how much it uses energy from renewable sources, etc. (Kosar, 2010). One of the important contemporary programs is „Sustainable Travel“, which was launched by Booking.com in 2014.

### **The nature of green business practices for hotel guests**

The increased interest of consumers in environmental protection issues has encouraged hoteliers to implement green business practices and environmental standards in their operations. This leads to a win-win position, because on the one hand, the hotel achieves savings in business through the reduction of waste, water and energy consumption, and on the other hand, the modern consumer highly values hotels that are environmentally conscious. Numerous studies have shown that hotel operations based on sustainable principles affect guest satisfaction, their loyalty and willingness to pay a premium price for services (Gao & Mattila, 2014; Martínez García de Leaniz et al., 2017). Research conducted in Serbia showed that the respondents highly value the green components of the hotel, that they would be happy to stay and recommend the green hotel to friends and acquaintances, but that there is no willingness of the respondents to pay a higher price for using services in these hotels (Sekulić, et al., 2014).

The importance of green business practices can also be seen through the „Sustainable Travel“ program launched by Booking.com. The program's objective is to „support a sustainable travel sector in order to protect the environment“. Five main categories are identified by the program: „energy, waste, greenhouse gasses and water, local community assistance, and nature protection“. A hotel or private apartment can include „32 sustainability standards into its business practices to identify these categories“. These include doing away with „single-use plastic packaging,

switching to LED lighting, utilizing renewable energy sources, and setting aside a portion of the proceeds for environmentally friendly community initiatives“. „Companies that adhere to the defined measures receive the label „sustainable travel“ which has three levels (three green lists)“. Research shows that „76% of travelers intend to make more efforts to travel more sustainably in the coming years, but that 44% of them do not know where to find such an option“ (Booking, 2024).

### Research methodology

The research on the application of green business practices in 5-star hotels in Serbia included 16 hotels. These are the hotels categorized by the Ministry of Tourism and Youth - Sector for Tourism, according to the categorization from January 2024. The goal is to determine whether these hotels have ecological certificates, whether they have more certificates and which certificates they have. The research was conducted in March 2024, using the analysis of secondary data available on the hotel's official website and on Booking.

### Research results and discussions

In accordance with the defined goal of the research, 16 5-star hotels on the territory of Serbia were included in the analysis (Table 1).

Table 1: 5-star hotels on the territory of the Republic of Serbia

Name of facility	Place/City	Total number of accommodation units	Total number of beds	Sustainability certification
Ambasador	Niš	69	105	No
Bor	Zlatibor	71	157	No
Grey2	Kopaonik	65	139	No
Hotel Park	Vrnjačka Banja	57	71	No
Hyatt Regency Beograd	Beograd	302	358	No
Izvor	Arandelovac	165	251	No
Metropol Palace	Beograd	236	259	No
<b>Premier Aqua</b>	<b>Vrdnik</b>	<b>54</b>	<b>71</b>	<b>Yes</b>
Premier Prezident	Sremski Karlovci	18	21	No
Prezident	Novi Sad	41	49	No
Prezident Palace	Beograd	59	71	No

Pupin	Novi Sad	44	52	No
Saint Ten	Beograd	54	65	No
Square Nine	Beograd	45	45	No
Tornik Sky	Zlatibor	227	342	No
Viceroy Kopaonik Serbia	Kopaonik	119	155	No

Source: *Ministry of Tourism and Youth - Sector for Tourism, Categorized Objects Republic of Serbia - January 2024*

The results of the conducted research showed that in Serbia the Premier Aqau Vrdik hotel (5 stars) has the following certificates:

- „ISO 14001:2015 Environmental management system“
- „ISO 45001:2018 Occupational health and safety management systems“
- „ISO 9001:2015 Quality management systems“
- „HACCP (Hazard Analysis Critical Control Points)“

Possession of one or more of these certificates implies that the hotel applies the following business practices in its operations.

#### Waste management

- „Recycling bins and waste is recycled
- Apparatus for cooling/dispensing water
- Do not use disposable plastic spoons
- Do not use single-use plastic straws
- Do not use single-use plastic water bottles
- No single-use plastic beverage bottles are used
- Do not use single-use plastic cups
- No disposable plastic cutlery/plates are used“

#### Water usage

- „Toilets with low water consumption
- Showers with low water consumption
- The possibility of not using the daily room cleaning service
- Possibility of reusing the same towels“

#### Energy and greenhouse gases

- „Most of the food available in the facility is sourced from local suppliers
- Energy-efficient LED bulbs are used for most of the lighting in the facility

- All windows are double glazed
- The facility strives to reduce food waste
- Power management via key card or motion sensor
- Electric vehicle charging station
- A vegetarian menu is offered
- The offer also includes a vegan menu“

#### Destination and community

- „Tours and activities organized by local guides and companies are offered
- A platform is available for local artists to showcase their skills
- Information on local ecosystems, heritage and culture as well as visitor guidelines are available to guests“

#### Nature

- „Wild (untamed) animals are not exposed and interaction with them is not possible while they are confined within the facility; they are not killed, consumed or sold
- Green areas such as gardens/roof gardens are available in the facility“

Looking at the main cities on the Danube, the data analysis showed the following:

- **Austria:** 195 hotels have an ecological certificate. Out of 85, 5-star hotels, 13 have a sustainability certificate.
- **Hungary:** 17 hotels have an ecological certificate. Of the 32, 5-star hotels, 4 have a sustainability certificate.
- **Slovakia:** 2 hotels have an ecological certificate. Of the 20, 5-star hotels, not one has a sustainability certificate.

On the other hand, the analysis showed that based on 1053 reviews on Booking, the average rating of the hotel Premier Aqau Vrdnik is 9.3. The staff (9.7) and comfort (9.6) were rated the highest, and the price-quality ratio (8.7) the lowest.

### Conclusion

The results of the research conducted on the example of the hotel industry in Serbia showed that out of 16 hotels with 5 stars, only one Premier Aqau Vrdnik has sustainable business certificates.

Empirical research has shown that having ecological certificates has benefits for both the hotel and its guests. The change in these standards has the effect that the hotel saves energy, water and other resources, and guests highly value hotels that are environmentally oriented. Accordingly, the change in environmental standards can significantly contribute to the hotel's competitiveness on the market and its differentiation in relation to competitors. In future research, the analysis should be extended to lower category hotels, especially to 4 and 3 star hotels.

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