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## **GREEN INVESTMENTS IN THE FUNCTION OF DEVELOPMENT OF TOURISM AND HOSPITALITY OF THE REPUBLIC OF SERBIA**

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### **Abstract**

*Green investments in the tourism and hospitality industry are an indispensable component in the era of sustainable development. The modern development of the tourism and hospitality industry implies investing in sustainable business models with the aim of preserving natural resources and reducing pollution. Green investing can influence hotel's better position on the market, taking the position of leader in sustainable business, and contribute to the awareness of the users of hotel services in the direction of more responsible behavior towards the natural environment. This paper examines the current situation regarding green investments in the tourism and hospitality industry of the Republic of Serbia. The results of the research showed a pronounced orientation of hotels to invest in sustainable business models, and obstacles that slow down the trend of green investments.*

*Key Words: green investments, sustainable development, hotel sector, tourism, Republic of Serbia.*

*JEL classification: L83, Q01*

### **Introduction**

Sustainability is one of the most important elements of the modern development of tourism and hotel industry. The transformation of the

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current business model which is profit oriented into an ecologically and socially responsible business and the preservation of the planet and nature is taking place. The key component of tourism development is sustainability, that is, the concept that enables the satisfaction of the needs of key interest groups, regarding the necessity of achieving economic benefits in the existing ecological and social environment (León-Gómez et al., 2021). From the aspect of the development of tourism and hospitality industry, sustainable development represents an innovative paradigm, which enables the application of new business models in order to preserve the natural environment.

Apart from tourism, the hotel industry is one of the leading industries at the global level with significant positive economic effects. According to Statista (2023), the size of the hotel industry has reached almost 4.7 trillion U.S. dollars, while this amount will increase to 5.8 trillion U.S. dollars by 2027. The most developed hotel brands are ranked by brand value at the global level, with the most valuable brand being Hilton with \$12.04 billion, followed by Marriott, Holiday Inn and Hyatt. The hotel industry represents one of the key links in the creation of a tourist product, contributing to the overall development of tourism, but also at the same time creating pressure on the environment and the local community (de Grosbois, 2012; Legrand et al., 2022). Also, the implementation of the concept of sustainability in the hotel industry affects the creation of the perception of tourists, decision about the choice of hotel, creating loyalty to it, as well as defining higher service prices in relation to the obtained quality with their reduced impact on nature pollution (Modica et al., 2020). Accordingly, the subject of research in this paper is determining the existing state of application of sustainable forms of business in the tourism and hospitality industry of the Republic of Serbia, as well as the key reasons and threats to the introduction of green investments in this sector.

## **Literature review**

### ***Green investments in tourism and hospitality industry***

In the last few years, there has been a pronounced trend of green financing, i.e. investing in the application of green (sustainable) models and solutions for more environmentally responsible business operations of companies as well as more rational use of resources. Such a tendency is a consequence of the increasingly pronounced negative impact of

human behavior on the ecological environment. The authors emphasize climate change and environmental degradation as key drivers of green investing (Zhang et al., 2022; Hunjra, et al., 2023). Pronounced water and air pollution, waste generation, emissions of harmful gases are just some of the environmental problems that have initiated major environmental disasters that the whole world is facing and that require globally applicable solutions (climate change, global warming, etc.).

Green financing represents a strategic approach to involve the financial sector in the transformation towards a low-carbon and more resource-efficient economy in the context of adapting to key environmental problems and solving them (Liu et al., 2020). Also, this term is interpreted as investment, which is considered necessary in order to reduce the emission of harmful gases as well as air pollution, but without a significant reduction in the production and consumption of non-energy goods (Eyraud et al., 2013). Today, green investments are encouraged by the change in philosophy that companies are not only profit-oriented entities; they must take care of the needs of society and lead an environmentally responsible business policy.

However, despite the existence of real bases for the implementation of green investment both by states and by individual companies, the financing of sustainable business models and investment in sustainable projects is still not sufficiently represented. Amenc et al. (2010) identified the following as key factors influencing the necessity of green investment: financial factors (loan repayment rates, consideration of long-term risk, etc.); additional financial factors (ecological, scientific, religious, ethnic, political); the reputation factor (investor and company reputation, marketing tools, public pressure) and legislation and fiduciary duty (domestic laws and regulations, international agreements). Some authors point out that the key drivers of green investing are actually the pressure of competition, environmental regulation, the specifics of business in certain industries, greater emphasis on innovation and cooperation between companies, as well as the need to „green“ consumer behavior (Xie et al., 2022; Siedschlag et al., 2022). Green investments represent a proactive way of minimizing existing problems and preventing the escalation of new environmental problems. It is also evident that environmental initiatives require coordination between states, i.e. the government, and the private sector, i.e. profit-oriented companies, which are forced to conduct environmentally and socially responsible policies in order to operate more efficiently.

Given the wide range of negative environmental impacts (water and air pollution, excessive electricity consumption, waste generation, noise and congestion, endangering plant and animal species), there are unlimited opportunities for investing in the green economy. According to Tran et al. (2020), several components of green investments can be identified: energy supply with low emissions (renewable energy sources, biofuels, nuclear fuels, etc.), energy efficiency (in the area of energy supply and energy consumption) and carbon sequestration (including deforestation and agriculture). In addition to the existence of numerous areas for green investment, it is also necessary to create a favorable environment for their implementation through education, promotion of sustainable development and provision of necessary resources for the realization of sustainable innovations and projects.

Tourism and hotel industry create very pronounced negative environmental impacts. If the focus is on the hotel industry, the fact is that hotels have been, and still are today, major polluters of the natural environment. It is influenced by a number of factors that may be related to a large number of service users during a certain period of the season, but the degree of impact on nature may also depend on the location of the facility, especially when they are located in ecologically preserved destinations. It is inevitable that in the last few decades, efforts have been made to find sustainable solutions for more responsible operation of hotels and other types of accommodation facilities. Hotel management is one of the primary activities, which intensively consumes resources and creates large amounts of waste, which is one of the causes of marked ecological degradation (Khatter, 2023). In addition, hotels are significant consumers of electricity, which further negatively affects the creation of the greenhouse effect and atmospheric changes (Mensah, 2006). Precisely because of this, hotels contribute to the emergence of numerous environmental problems for which there are still no long-term sustainable solutions, but solutions that keep these problems under control.

### **Research methodology**

In this study, research was based on a sample of 45 hotels categorized from 2 to 5 stars and are located in the most developed tourist destinations of the Republic of Serbia according to the defined categories: cities (Belgrade, Novi Sad, Niš, Kragujevac and Subotica), spas (Vrnjačka Banja and Sokobanja) and mountain centers (Zlatibor and Kopaonik). In addition to the mentioned destinations, a certain number of hotels are located in other parts of the Republic of Serbia. The survey questionnaire created for

research purposes was distributed to the email addresses of hotels located in destinations that are extremely visited and that have the potential to implement green practices in order to meet the needs of tourists and to achieve more efficient business. The emphasis is placed first on hotels of both higher and lower category, in order to determine the current situation in terms of investing in „green“ business and sustainable business models. The research took place from December 2023 to February 2024. The questionnaire was prepared based on several empirical studies dealing with green investments in the hotel industry (Budarma et al., 2020; Liu & Hu, 2022; Legrand et al., 2012). However, the largest number of questions was adapted from the study by Legrand et al (2012), which deals with the analysis of motivations and barriers that affect German hoteliers regarding the introduction of sustainable practices in their own business.

The survey questionnaire included 9 questions, which were divided into two segments. The first part relates to questions about the respondents (number of years of work in the hotel industry and job position) and the hotel (location, category of facility and number of years of operation). The second part of the questionnaire consists of specific questions, which refer to the defined subject of the research (achieved degree of investment in „sustainable“ business, reasons for this type of investment as well as threats to further investments). When asked about the forms of investing in „sustainable“ business, the respondents gave answers with grades from 1-Not at all to 5-We invested the most. The collected data were processed in the statistical package SPSS.26 with the application of appropriate statistical analyzes with the aim of drawing conclusions about the achieved degree of investment in „sustainable“ business.

### **Results and discussion**

In order to examine the degree of interest of hotel companies in the application of sustainable business models, the sample included 45 hotels operating in the territory of the Republic of Serbia. According to the results of the research, the survey was filled out by workers who mostly have work experience in the hotel industry between 1 and 5 years (42.2%), as well as those who have worked in this sector for 6 to 10 years (24.4%) and between 11 and 15 years (22.2%). According to the job position, 24.4% of the respondents work in the position of manager of individual organizational units in the hotel, while 40% are employed as a front desk manager or receptionist. Looking at the location of the hotel, 28.9% of the facilities are located in Belgrade, while 8.9% are each located in Vrnjačka

Banja, Subotica and Kopaonik. Other destinations include hotels in Čačak, Sokobanja and Paraćin. 53.3% of hotels have the 4\* category, while only 8.9% of hotels have the 5\* category. According to the years of operation, it is about hotels that have been operating for 11 years or more in the territory of Serbia and that is 64.4%. When asked whether hotel management believes in achieving better financial performance based on green investment, 80% answered positive (Table 1).

Table 1: *Basic data on respondents*

Characteristics of respondents		Frequency (N=50)	
		N	%
Total number of years of working in the hotel industry	1-5 years	19	42.2
	6-10 years	11	24.4
	11-15 years	10	22.2
	16-20 years	5	11.1
Working position in a hotel	Front office manager	4	8.9
	Hotel manager	7	15.6
	Manager of certain organizational units in the hotel	11	24.4
	Director of marketing and sales	4	8.9
	Receptionist	18	40.0
	Other	1	2.2
Hotel location	Beograd	13	28.9
	Kragujevac	4	8.9
	Novi Sad	4	8.9
	Vrnjačka Banja	5	11.1
	Zlatibor	2	4.4
	Niš	2	4.4
	Kopaonik	5	11.1
	Subotica	5	11.1
	Other destinations	5	11.1
Categorization of hotels	5*	4	8.9
	4*	24	53.3
	3*	16	35.6
	2*	1	2.2
Total number of years of hotel business in Serbia	1-5 years	9	20.0
	6-10 years	7	15.6
	11 years and more	29	64.4

Source: *Authors according to SPSS 26.0 results*

Analyzing the answers to the question about the achieved degree of investment in certain forms of sustainable hotel business, the highest average score was calculated for *Process optimization* (M=3.04) and *Energy efficiency* (M=3.02). On the other hand, the lowest average score was calculated in the case of *Recycling* (M=2.49) (Table 2).

Table 2: *Green investment of hotels in the previous period*

<b>Forms of green hotel investment</b>	<b>Mean</b>	<b>Std. Deviation</b>
Energetic efficiency	3.02	1.515
Process optimization	3.04	1.313
Recycling	2.49	1.254
Waste reduction	2.91	1.258
Sustainable architecture	2.69	1.311

Source: *Authors according to SPSS 26.0 results*

The main reasons why hotels opt for green investment. The most common answer is *Social responsibility* (34%), *Cost reduction* (31%) and *Hotel reputation* (22%). The answer *Creating an efficient supply chain* is represented in a very small percentage (2%).

When asked about the main threats that slow down hotel investment in „sustainable“ business, the most common answers are: *Lack of financial resources* (37.8%), *Insufficiently developed awareness and information about sustainability* (28.9%) as well as *Complexity of implementing green business models* (17.8%). On the other hand, 2.2% singled out the actual profitability of the hotel (2.2%) and the lack of adequate leadership in the implementation and maintenance of green business models (2.2%) as a key obstacle to further investment (Table 3).

Table 3: *Threats to further investment in „sustainable“ business in the hotel industry*

<b>Variables</b>	<b>n</b>	<b>%</b>
Lack of financial resources	17	37.8
Actual hotel profitability	1	2.2
The complexity of implementing green business models	8	17.8
Lack of adequate leadership in the implementation and maintenance of green business models	1	2.2
Lack of adequate personnel for the implementation of green business models	5	11.1
Insufficiently developed awareness and information about sustainability	13	28.9

Source: *Authors according to SPSS 26.0 results*

## Conclusion

By analyzing the previous theoretical knowledge on the current state and commitment of hotels in the territory of the Republic of Serbia to green investment, the authors concluded that it is necessary for the hotel industry, as an important sector in the development of many tourist destinations, to be based on a sustainable business philosophy. Hotels, as significant polluters of the environment, must direct their business policy towards the implementation of the principles of sustainable development and finance innovative business models, which affect the reduction of negative effects on natural resources, and the establishment of more effective and efficient performance of various business processes in the hotel business. The results of the conducted research showed that hotels in the territory of the Republic of Serbia are interested in green investing and that they directed most of their activities towards achieving process optimization and energy efficiency. On the other hand, social responsibility and cost reduction were singled out as the main reasons for green investing. One of the important conclusions derived from the research results refers to the main threats or obstacles that slow down green investments in the hotel sector, namely the lack of financial resources and insufficiently developed awareness of sustainability. The key limitations of this research are related to the relatively small number of hotels included in the sample, which is a consequence of the insufficient interest of hoteliers to participate in the research, as well as the uneven distribution of hotels according to individual tourist destinations. In future research, the research focus should also be focused on the impact of the implementation of „green“ hotel operations on its image and guest satisfaction with the quality of the services provided.

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