

Article

The Role of Performance and Environmental Sustainability Indicators in Hotel Competitiveness

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Abstract: Environmental protection and environmental sustainability are becoming increasingly important factors in the hotel business and their competitiveness, in a market that brings numerous benefits. Environmental sustainability is, increasingly, considered one of the most important functions of the hotel business, as well as communication and marketing, which attracts a larger number of guests. Some of the key aspects of hotel environmental sustainability are performance and environmental sustainability indicators, as well as hotel management of environmental performance in order to establish efficiency in that process. The principal question arising is how environmentally sustainable business affects hotel performance, and what are the most important indicators of the environmental hotel business. The aim of this article is to offer an insight into, and analysis of, performance and indicators of the environmental sustainability of hotels through the relevant literature. A case study from Serbia is used to point out the complexity and the significance of these indicators in the hotel business, as well as to emphasise the importance of environmental reports in the case of Serbia. The findings of our study are significant because they help hotel managers identify new opportunities for employing more sustainable processes for saving resources.

Keywords: sustainable business; tourism; performance; indicators; hotel; communication; marketing



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1. Introduction

The hotel industry represents an essential part of the tourism industry and, consequently, on the one hand, pollutes the environment, while on the other hand, due to its part in the tourism industry, it has many opportunities to contribute significantly to lowering its negative impacts on the environment, such as global warming and depletion of natural resources [1]. Higher environmental awareness, the intersection between business and environmental issues [2] and some other changes, such as digitalisation in the last twenty years, have shown that there is a need for the improvement of effectiveness and efficacy of hotels [3]. Environmental protection and addressing key environmental issues are becoming increasingly important factors in the hotel business and influence hoteliers' competitiveness in the market, whereby the key issue is their ability to manage environmental performance and establish efficiency in that process. In the extremely competitive market, sustainability is an advantage [4], and the success of a hotel is dependent upon a safe and attractive environment [5]. Tourists and hotel guests have a positive attitude towards green hotel practices, which are often termed “green hospitality” in the literature [6]. In addition, the inclusion of sustainable practices in hotel strategies represents one of the key competitive business development mechanisms [7]. The devotion to environmental sustainable development and the quality of services have a meaningful positive impact on hotel performance [8,9]. Hotels having a proactive application of environmental sustainable business achieve a high level of economic performance, and also a positive relationship between environmental management and the overall performance of the company [10]. Many studies have highlighted the positive impact of environmental sustainable business

on a company's sustainable image [11] and on its financial performance [12–19]. The promotion of sustainable practices in hotel management is particularly important in those countries where environmental legislation is less strict than, for example, in the European Union and some environmentally aware countries, because the inclusion of sustainable practices in the hotel industry can bring significant benefits to the environment. In Serbia, environmental standards are not yet as high as in the European Union, and this is exactly why sustainable practices in hotels can contribute a lot. This article, which is based on a case study of Serbia, provides an overview of performance and hotel environmental sustainability indicators. Its main objective is to emphasise the complexity and significance of the environmental indicators in the hotel business and at a destination as a whole.

2. Literature Review

2.1. Sustainability of the Hotel Industry

Climate changes require more sustainable tourism goals, among which the saving of resources such as water and energy are particularly outstanding [20,21]. Another environmental issue is the greenhouse gas effect. It is estimated that tourism contributes 8% of the greenhouse gas emissions [22]. Big hotels produce substantial carbon footprints [23] and, thus, one of the goals of sustainable hotels is to lower the carbon footprint successfully [24]. There have been quite a few recent contributions on energy and water use in hotels [20,23,25] based on case studies from Austria, Iran and Thailand, but no study has so far covered the sustainability of hotels in Serbia from the aspect of the sustainable hotel business. Therefore, environmental aspects of the hotel business need to be seen as a specific process that requires multidisciplinary analysis. Commitment to these issues also requires an analysis of how to implement environmentally sustainable business successfully in hotels. Studies that analysed the relationship between the environment and hotel performance used different variables, from practice, initiative, technology and environmental management systems to analysis of the specific positive and negative impacts of hotel activities on the environment, as well as emissions [2,9,20,23,26–34]. According to these studies, performance management requires the application of certain elements, instruments, indicators, techniques and methods, on the basis of which managers have the ability to identify, achieve and increase the efficiency of the use of resources and capabilities of the company. Company performance management means managing all company performance at the organisational level, including the performance of the individual (employees). The most important goals and significance of hotel performance management are reflected in improving the performance of resource use and social responsibility of the hotel, continuous development of all employees, as well as meeting the expectations and satisfaction of consumers and all other stakeholders (suppliers, strategic partners, community, etc.) [8,34–36]. In other words, numerous studies have found that there is a positive impact of environmental management on the performance of hotel businesses [8,9,27,29,30,33].

Environmental performance and its significance are based on the hotel's business strategy, whereby the emphasis is on effects, in order to protect the environment in the long run. These performances form the basis of the corporate responsibility and sustainable business of the hotel company in order to improve the environmental, economic and social performance of the hotel [37]. In that way, the rational manifestation of sustainability is connected through environmental and social requirements, which contribute to the realisation of positive economic results.

The environmental performance of the company includes the environmental efficiency and effectiveness of all environmental activities and measures applied in the company. Environmental effectiveness represents the achieved environmental effects according to the planned (targeted) environmental measures, programmes, actions and other environmental initiatives. Environmental effectiveness also indicates whether the right choice of environmental measures and activities has been applied in order to improve environmental performance. On the other hand, environmental efficiency represents essentially all the efforts of the company to implement environmental activities and achieve the best

environmental effects with as few invested resources as possible. In other words, environmental efficiency represents the achieved environmental effects in relation to investments for the implementation of environmental activities and measures. It seems that this is a well-researched and popular topic across the globe, as it will be presented further on, but at some destinations there is a lack of on the ground knowledge and cooperation between professionals in tourism and academia.

2.2. Performance and Indicators of Hotel Environmental Sustainability

The performance and benefits that hotels achieve by applying environmentally sustainable business have been the subject of research by most authors. These studies have shown that hotels achieve better performance and benefits at all levels, including environmental performance [1,8,9], better financial performance, reduction of costs, especially energetic, greater efficiency of cost control, minimisation of resource use [5,26,32,38–52] by introducing environmentally sustainable business.

A large number of authors, in addition to better financial performance, add better competitiveness, corporate image, more effective marketing, increasing brand value, greater trust from tourists, which affect the improvement of all performance and business performance of the hotels significantly [26,40–42,45–49,52–55], helps better promotion and greater capacity utilisation [38,56–60], which, altogether, contribute to hotels and reaching a leading position in the industry [55].

Sustainability, which is context specific and ontologically open, is typically interpreted through three pillars: social, economic and environmental [61,62]. The goal of sustainable hotel development is reflected in the implementation of long-term sustainable operational business in order to minimise the negative impacts of hotels and protect and preserve the environment and, thus, achieve benefits for the whole community, including economic. Environmental characteristics, such as competitor diversification and organizational characteristics such as size, belonging to a group, star rating and ISO certificate, can have an impact on hotel performance [4]. The most important benefits of environmentally sustainable hotel business are based on [63–65]:

- Reducing operational costs and cost control efficiency.
- Additional revenue through lower costs.
- Greater long-term financial stability.
- Greater consumer satisfaction.
- Greater brand reputation and creating a better image (positive PR).
- Long-term ability to stay in business and be profitable.
- Reducing negative impacts and preserving the environment.

On the other hand, as already pointed out, the application of environmentally sustainable business also brings financial benefits to all hotels, such as reducing operational costs, especially energy costs due to the high amount of energy consumption and, therefore, costs, their efficient monitoring, more efficient operational business, and so forth [9,48,52].

In order to assess the performance and fulfilment of hotel environmental sustainability indicators, it is necessary to perform an impact assessment of the hotel business on the environment, which includes a hotel condition overview, use of modern technologies, insight and evaluation of the initiatives taken to increase responsibility and environmental protection. In addition, it is necessary to develop a set of measures that will enable continuous monitoring of environmental performance. A large number of authors have researched environmental performance indicators of hotel companies [66]. Part of these studies dealt with the operational business of hotels, and models of resource use and indicators with an emphasis on the impact of energy and water management on company performance [28,29,67–69]. Some authors have focused on analysing the environmental performance of hotel energy efficiency, their indicators and reducing CO₂ emissions [70].

The hotel's business performance is influenced largely by quality management systems and standards in addressing key environmental issues. To help hotels improve their own approach to environmental protection and promote environmental sustainability, it is

possible to use the guidelines of the ISO 14031 Standard to assess activities and performance in the field of Environmental Protection. The utilisation of these tools enables the minimisation of negative effects on the environment, the control of individual environmental impacts, and the easier definition of goals to be achieved through a systematic and strategic approach of environmentally sustainable business. This international Standard does not establish levels of environmental performance, but its purpose is aimed exclusively at improving the company's approach to Environmental Performance Evaluation (EPE), [71]. This also includes a devotion to process harmonisation with existing legal and other requirements, pollution prevention and continuous improvement of the hotel's relationship towards the environment. Within the evaluation of Environmental Performance according to the ISO 14031 Standard, two types of indicators are distinguished [72]:

- Environmental Condition Indicators (ECIs).
- Environmental Performance Indicators (EPIs), consisting of Operational Performance Indicators (OPIs) and Management Performance Indicators (MPIs).

When it comes to the results of the implementation of the entire environmental management in the company to be verified, all the above basic groups of indicators (ECIs, OPIs, MPIs) must be taken into account [71].

Operational Performance Indicators represent the direct impacts of the hotel on the environment and the results achieved by the application of the environmental management system, namely, environmental effects that provide all the relevant information on the environmental performance of the company. This group of indicators refers to indicators showing the consumption of raw materials, energy, water, use of renewable energy sources, emissions of harmful and dangerous substances, waste, and so forth.

Management Performance Indicators show the success of management in the implementation of environmental systems, programmes and activities, the efficiency of system control, division of responsibilities, investments, financial results, employee involvement, safety at work and consumers, internal and external communication, and so forth. In other words, these indicators aim to provide all the necessary information on how the hotel is using specific activities to contribute to the environmental performance of the business.

Indicators of environmental conditions are related to the quality of the environment at the local level and the coverage of global measures and goals of environmental protection, such as reducing resource consumption, greenhouse gas emissions and so forth. These indicators show the quality of the environment in relation to individual elements of the environment such as air, water, land, biodiversity, as well as the extent to which a company affects that quality.

Measuring performance from a hotel perspective is not an easy task. Each hotel, for itself, must, depending on its size, location and business strategy, establish a planning process to identify those environmental aspects and activities that will have a significant impact on the environment, according to the specifics and characteristics of its operational business and environment due to the impact on the environmental performance of the hotel [49]. Each individual activity can be flexible to the extent to which it is necessary to adjust the business to environmentally sustainable development and the environment in which the hotel is located.

In order to measure performance and environmental sustainability indicators more efficiently, it is necessary to [72–75]:

- Define the objectives within the environmental management system clearly.
- Assess the potential negative impacts of the hotel business on the environment and define measures for their elimination.
- Define the criteria and performance that need to be achieved in accordance with the environmentally sustainable business of the hotel.
- Report on the achieved goals of environmental sustainability in the business continuously.

Measuring the performance of environmental sustainability should start from pre-defined indicators such as water consumption, electricity consumption, consumption of

cleaning products, number of hotel initiatives to prevent pollution, number of employees participating in environmental protection programmes, costs related to the environmental aspects of the process of implementing environmental protection, the method of waste management, and so forth. On this basis, it is possible to monitor activities that are implemented in the direction of environmental sustainability, and on that basis to enable the commercialisation of the hotel offer, namely, hotel services and products. Following environmental trends, taking into account costs through more efficient consumption of energy, water, waste management and recycling, performance can be tested in hotels, which checks whether everything expected is really achieved on the basis of the defined indicators of environmental impact.

The book “Green to Gold” highlights the way in which the use of different environmental protection strategies can be used in the direction of achieving positive business performance and creating a competitive advantage. The authors Esty and Winston [76] point out that the gold that hotels and other companies achieve through the application of environmental standards consists of higher revenues, lower operational costs, and often lower interest rates by banks for the introduction of environmental management systems and other environmental measures and programmes.

The performance measurement indicators shown in Table 1 are supported by empirical research which shows a strong orientation towards economic performance based on profitability, but also a growing need to achieve intangible values, with increasing importance given to educating employees about the importance of the environmental business of the hotel company and the positive impact on the environment, as well as raising awareness, not only among employees, but also among guests [77].

Table 1. Measuring the performance of environmental sustainability in hotels.

Environmental Performance	Social Performance	Economic Performance
<ul style="list-style-type: none"> • Average water and electricity consumption per year • Percentage of average annual cost savings from investments in water and electricity conservation • Percentage of average annual cost savings from waste recycling • Percentage of growth of investments in ecology and development of services in that direction on an annual level 	<ul style="list-style-type: none"> • Percentage of employees by gender and age • Investments in training and development of employees on an annual basis • Supply structure from local suppliers • Average employee turnover rate 	<ul style="list-style-type: none"> • Return of guests to the hotel • Average length of stay (nights) • Average occupancy rate by seasons • Average price per room per season • Earnings per room

Source: [77], p.85.

It should be noted that, for the purpose of applying the indicators, many guides have been published giving instructions on which indicators should be applied in the company and how to collect the necessary data based on these indicators [73,78]. The World Tourism Organization has proposed a set of indicators, for example, for energy efficiency, consumption and water quality, referring to the tourist destination, but are also used in tourist companies, including hotels, because they represent an integral part of the destination [73].

2.3. Factors Influencing the Performance and Choice of Indicators in Hotels

Factors influencing the performance and choice of indicators in hotels can be classified into physical and operational parameters [79].

Physical parameters are related to the size, structure and hotel building design, geographical location and climatic conditions, age of the building, types of installed energy and water systems, mode of operation of these systems (operational functioning and maintenance), types and quantities of energy used, local water resources available, as well as regulating the use of water and energy at the local level and the prices of these services.

The use of resources in operational business is very specific, because it includes the work and work schedule of different hotel departments within the facility. These include a number of facilities used in hotels (restaurants, kitchens, laundry, swimming pools, Sports and Business Centre, Spa, etc.), types of services provided, fluctuations in capacity utilisation, variations in guest comfort requirements, practice of management and conservation of water and energy in the environment, the need for irrigation of green areas, the awareness of guests and employees about the need to reduce the use of resources. Some of these indicators are difficult to measure or quantify, especially when it comes to the level of awareness of service users and employees about the importance of environmental protection, because they represent qualitative parameters. The most important aspects of environmental management in hotels are focused on the environmental performance of the space, resources and products and services provided by the hotel. From a spatial point of view, the hotel can be divided into three zones [80–82]:

- Guest area (hotel rooms)
- Public area (reception, lobbies, halls, bars, restaurants, swimming pools, saunas, and so forth, technical equipment and size of the space, the average number of people using the space and services, etc.)
- Service area (kitchen, offices, warehouses, laundry, locker rooms, canteen for employees, the technical department where heating, ventilation, cooling and other systems are located, etc.).

It should be emphasised that the differences in the use of resources are large in the zones and departments of the hotel, but also by the work schedule, that is, the time of use of resources during 24 h.

Given the importance of sustainability and its impact on business performance, hotel companies today focus on environmental sustainability activities related to the rational use of resources (energy, water, food) and environmental impact management, including waste. Directing hotel activities in order to improve their performance in the field of environmental protection must be based primarily on the rational use of all resources and the efficient management of generated waste [41].

Energy efficiency is being set as the primary factor that determines the performance of a hotel business due to high energy consumption and costs [38,48,62]. Discussions in research in this area indicate the need to pay more attention to the use of energy savings in the direction of achieving better hotel business performance. This is further evidenced by the growing demands of tourists on the need for environmentally conscious hotel behaviour through energy savings, and the provision of a full range of environmentally friendly services and products [83].

The traditional concept of measuring annually per square meter of hotel space is applied to measure energy consumption. However, this indicator needs to be adjusted, depending on variations in weather conditions and their impact on energy consumption [84]:

$$\text{Energy Use Intensity } \frac{kWh}{m^2} = \frac{\text{Annual Energy Use}}{\text{Total hotel space consuming energy}}. \quad (1)$$

It is necessary to point out once again that energy consumption depends on physical parameters such as the size of the facility, structure and design, the geographical area in which the hotel is located and the type of energy used for the needs of the hotel business. For example, the energy consumption for heating in hotels depends on the outside air temperature, and the energy consumption for water heating depends on the number of guests. In addition, it should be noted that the volume of energy consumption is influenced by the number of departments and service segments of the hotel (kitchen, laundry, Sports Centre, Spa, etc.).

Bearing in mind that it is marked as a key aspect, the potential of energy use in hotels should be focused on the implementation of an appropriate strategy to achieve greater energy efficiency, which contributes to achieving positive business performance, and which

is best illustrated by research and practical examples. IHG, for example, implements energy efficiency through an advanced Green Engage system, which contributes to increasing the environmental performance of hotels, that is, savings in energy consumption, but also to taking additional measures to achieve even greater efficiency [56,85].

In a study conducted among hotels and hotel chains in Greece, the results showed that 72–75% of total energy consumption is used for air conditioning (cooling and heating), for the production of hot water 8–9%, while for lighting about 15% is used [86].

A significant issue affecting hotel performance also relates to the consumption and management of water resources. When it comes to water consumption, the following standard formula can be used to calculate it [84]:

$$\text{Water Use Intensity} \frac{\text{litre}}{\text{m}^2} = \frac{\text{Annual Energy Use}}{\text{Total hotel space consuming water}}. \quad (2)$$

Taking specific measures, such as installing faucets and toilets with reduced water consumption, constant control and inspection of the water supply network, use of the so-called grey water, can help reduce water consumption significantly.

It should be noted that the usual (harmonised) units of measure used to measure the most important indicators of environmental performance, as well as for comparison (benchmarking), are the following [43]:

- Energy in kilowatts per hour (kWh);
- Water in litres (L), (total consumption, m³/year);
- Floor area in square metres (m²);
- Carbon dioxide emissions in kilograms (kgCO₂e), (only carbon dioxide, methane and nitrate oxide are used).

In order to be able to quantify as clearly as possible the most commonly used environmental indicators are used, which represent the resources consumed (input) per unit and the material results achieved in the process of production and provision of services (output) in the company. Two groups of target functions in a tourism company, inputs and outputs, need to be defined in the Development Policy. Outputs refer to the growth of economic categories (revenue, profit, employment, etc.), while inputs express use, that is, resource consumption.

For the hotel industry, the basic indicators are guests per night (rooms sold), the number of rooms occupied, and cover charges sold in hotel restaurants are often used [73,87]. To calculate the total utilisation of resources in the hotel, it is necessary to calculate and divide all inputs of consumed resources per unit with the total output of the provided service in the hotel per time unit, that is, all achieved material results, as shown in the formula below [48]:

$$\text{Resources used (energy, water, chemicals)} = \frac{\text{total input of used resources per unit and time}}{\text{total output of provided service per time unit}}. \quad (3)$$

The time unit can be used on a monthly, quarterly and annual basis. The total output of the service provided includes the number of occupied rooms, the number of guests served in the hotel, the number of cover charges sold in restaurants, and more. Inputs involve calculating resource consumption by type and unit, such as energy and water consumption according to the aforementioned or other similar formulas, which are then summed to obtain the total resource consumption.

Figure 1 shows an example of environmental inputs and outputs in hotel business activities and operational business processes that affect environmental pollution, as well as those activities that the hotel needs to carry out in order to become an environmentally sustainable hotel.

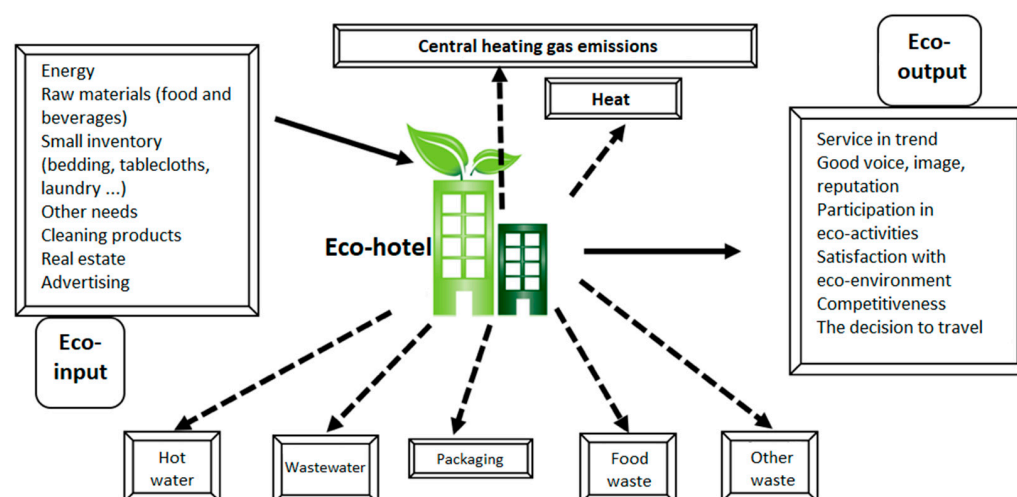


Figure 1. Pollution from business activities and processes in the hotel. Source: Author according to [88].

2.4. Performance Evaluation and Reports

Performance evaluation is an assessment of the indicators and methods used in measuring the environmental performance of a hotel company [1]. Performance evaluation is also important for the preparation of reports, that is, reporting on environmental performance. In order to standardise environmental reports as much as possible at the global level, UNEP has made a recommendation that contains five main grouped areas important for environmental reporting, which are [86]:

- Management (company data, environmental policy, goals and development, environmental management system, etc.);
- Analysis of inputs/outputs (resources, energy, wastewater, materials, environmental risk, waste, air pollution, etc.);
- Finances (all financial indicators, realised savings, investments, etc.);
- Stakeholder requirements (consumers, employees, business partners, investors, local community, media, science, education, etc.);
- Global measures and goals (response to set global goals and measures, respect for the needs of balanced development, respect for Standards, cooperation, etc.).

According to the ISO 14031 Standard, environmental reporting means providing relevant information on environmental protection and company performance in order to meet the requirements of various stakeholders at the tourist destination level, which are very important for business because they create greater public trust and, thus, help a more successful appearance in a market, particularly the global market. The requirements of various stakeholders relate to investors and shareholders, banks, insurance companies, regulatory bodies, government institutions, local governments, consumers, business partners, employees, NGOs and media [72]. In the process of environmental reporting itself, it is necessary to take into account Standards, policies, norms, criteria and different levels of hotel operations in order for reporting to be adequate. Environmental reporting according to the EMAS Standards is certainly a relevant and complex reporting system of integrated environmental management that meets the Standards and norms of environmental reporting according to world standards.

Figure 2 shows the system of reporting of integrated environmental management according to the EMAS Standards.

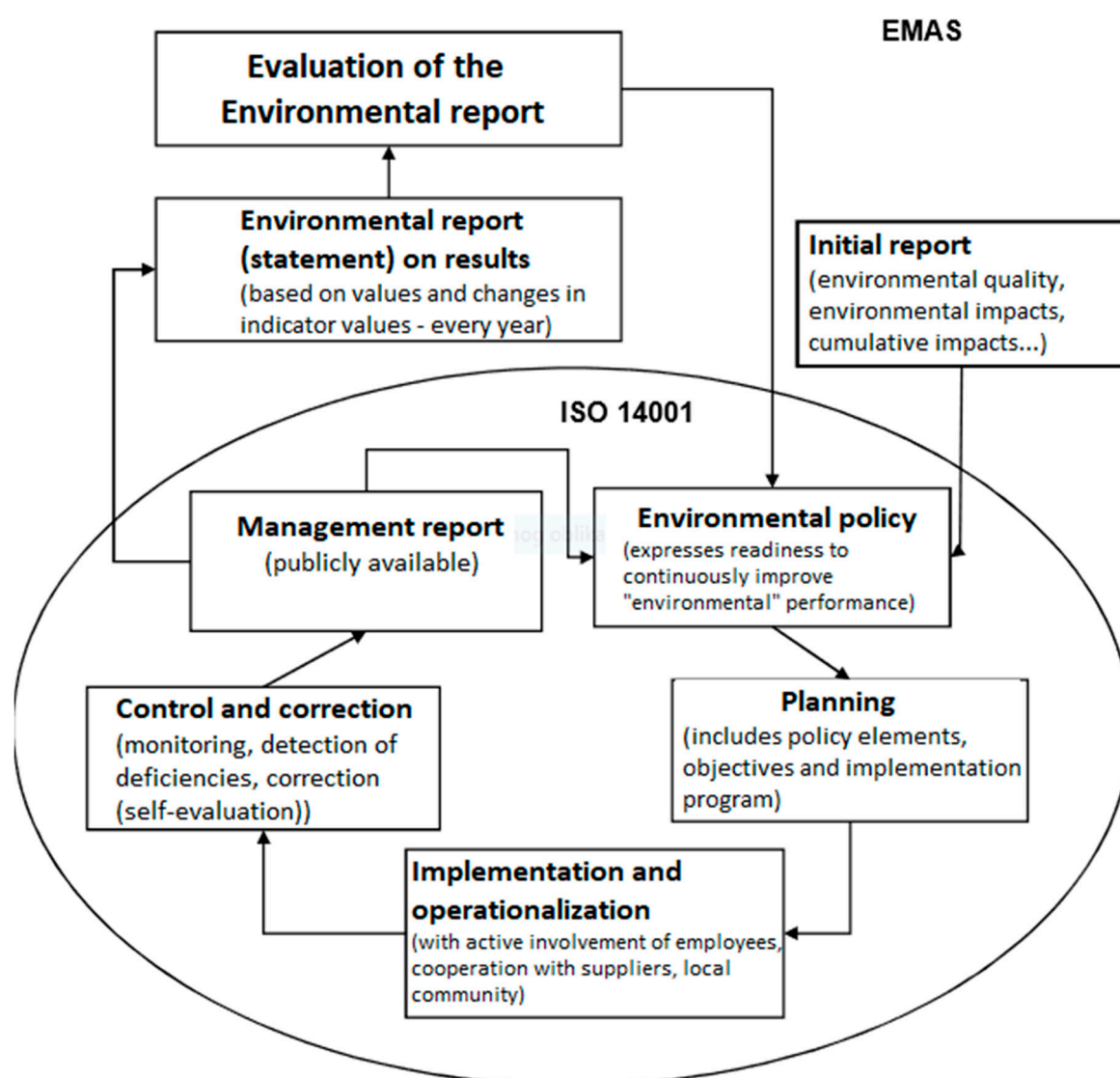


Figure 2. Environmental Report according to EMAS Standards. Source: Author according to [89].

It should be noted that EMAS, or EMS, Eco Management Systems, represent an entire and complete system of management, planning and control of environmental protection in hotels [2,31,90–95], but hotels still implement the ISO 14001 Standard more than EMAS/EMS, primarily because the costs of implementing ISO 14001 are lower in regard to EMAS/EMS [41].

The subject of research by many authors is also performance indicators, that have been used and published to compare the environmental performance of hotel companies (benchmarking), but also for the debate, due to the large variation in reports [27,69,96]. This is due to the different methodologies used in data collection, as well as the characteristics they take as references for measurement (e.g., weather conditions, types of hotel services and equipment, capacity utilisation level, building size) by benchmarking organisations or economic entities. The application of benchmarking has indicated that it is impossible to establish unique environmental performance model for all hotels, but different approaches to benchmarking modelling can be developed that can include a strategy to increase environmental performance [30]. There are also special programmes designed for environmental reporting, as well as planning management strategies and investments in the field of Environmental Protection in hotels, especially energy [97].

It should be noted that the requirements related to the transparency of environmental performance and CSR reporting are very large and include a large amount of data related

to one hotel, and are related mostly to resource use, emissions and waste. It should be emphasised once again that there is no unique methodology in measuring, collecting and verifying the collected data.

Some hotels, especially hotel chains, use the world-renowned GRI (Global Reporting Initiative) indicators, that is, the GRI Index for economic, environmental and social aspects of business performance in their reports [85,98]. GRI Environmental Standards apply to: GRI 301: Materials 2016, GRI 302: Energy 2016, GRI 303: Water and Effluents 2018, GRI 304: Biodiversity 2016, GRI 305: Emissions 2016, GRI 306: Waste 2020, GRI 307: Environmental Compliance 2016, GRI 308: Supplier Environmental Assessment 2016, [99].

Some hotels that have eco-labels (certificates) base their reports on the requirements of these eco-labels. Each eco-label has basic and specific indicators and criteria, and the certification process itself includes several stages, including control, which includes the preparation of reports. This refers to the most famous and recognised eco-labels on a global level, which are accepted in the world, and which are important and relevant for hotels, such as: Green Globe, Green Seal, Green Leaf, Ecotel [100,101]. It should be emphasised that obtaining an eco-label means that hotels belong to a group of hotels that consume resources rationally and treat the environment responsibly and manage environmental business performance.

For example, The Hilton Group conducts its environmental reporting and benchmarking through the HER system (Hilton Environmental Reporting) for its hotels around the world, which it has developed itself to help its hotels track resource use and variations over time. HER is available on the Hilton intranet using two levels of reporting and three separate forms that each hotel must complete [102]: (1) Hotel profile; (2) Environmental data and (3) Energy consumption data.

It is also necessary to mention the reporting scheme and benchmarking of the Green Globes Canada, which is used to compare the environmental performance of constructions (buildings) with objects of similar characteristics contained in the database, including the assessment of the performance of hotel facilities. The audit criteria are based on the internationally accepted Environmental assessment methods for building (BREEAM), [102].

The assessment questionnaire is divided into 7 modules, and requires the following information to be entered [102]: (1) Information on the building; (2) Energy: Energy consumption; (3) Water: Water consumption; (4) Resources: Waste reduction and recycling; (5) Emissions: Air emissions; (6) Indoor environment: Indoor air; (7) Environmental management: EMS documentation.

On average, there are about 75 questions that require simple answers, but the questions related to resource consumption require the entry of monthly data for a period of 12 months (which is specified), so the questionnaire can be completed in 2 to 3 h [102].

From the above examples, it can be seen that the complexity of the manner and methodology of collection and benchmarking of reporting is very large and requires a detailed collection of a numerous amount of relevant information, that is, indicators of the environmental performance of the company.

Some research indicates that many hotels do not have reports on environmentally sustainable business, which means that they do not apply enough, or do not apply environmental business in their hotels at all, and are not aware of the importance of environmental performance which can contribute greatly to reducing their costs, as well as reducing the negative impact on the environment, but also has many other benefits. An analysis of five indicators related to the perception of energy efficiency in hotels in southern Europe (activities related to environmental protection, solid waste management, efficient use of resources, benefits and constraints) found that most of these hotels do not have Environmental Reports [103]. It should be emphasised that, on the other hand, Environmental Performance Reports provide an insight into environmental commitment, and help hotels in implementing additional activities to reduce resource consumption further, and, thus, costs, which means that they can improve their business further in the future.

3. Research Methodology

3.1. Case Study

For the case study, Serbia was chosen because in recent years, before the pandemic, the tourism sector in Serbia has been growing fast, but as far as sustainability is concerned, there is plenty of room for improvements. In Serbia, where the government has officially proclaimed the tourism sector as a primary area for future economic development and growth, the number of tourists is increasing year by year. Like other destinations, Serbia is also affected by COVID-19 pandemic and is facing huge financial losses in the tourism industry, but it is expected that recovery will start in the near future. In 2019, before the pandemic, the number of tourists visiting Serbia was around 4 million. In 2018, a total of 3,430,522 million tourists visited Serbia, of which 1,710,514 were foreign. In 2017, Serbia recorded 3,085,866 arrivals and in 2016, a total of 2,753,591. The tourism sector accounted for 1.4% of GDP in 2018 with a growth rate of 8.0%, while foreign exchange earnings were estimated at \$1.5 billion. Belgrade has the highest number of total tourist arrivals in Serbia, followed by Novi Sad. In 2018, Belgrade has recorded 1,160,582 arrivals, of which 971,942 were foreign, while Novi Sad has recorded 214,321 arrivals of which 138,484 were foreign [104].

The major and most popular Serbian tourist destinations mainly visited by domestic tourists are mountain resorts: Zlatibor, Kopaonik, Tara, Stara planina and spa (thermal spa) resorts: Vrnjačka banja, Sokobanja, Banja Koviljača, Ribarska, Bukovička banja. The top and major destination preferred and mostly visited by the foreign tourists is Belgrade, the capital of Serbia and ex-Yugoslavia, one of Europe's oldest cities. Belgrade is followed by Novi Sad, the capital of Vojvodina, Serbia's northern province. Belgrade and Novi Sad have well developed city-break and conference tourism. Both cities are rich with cultural and historical monuments, relics, museums, nightlife, music festivals and other attractions. Most of all foreign visits are made to these two cities [105].

As the main objective of this research is to investigate the sustainable practices in various hotels in Serbia and to analyse the significance of the selected most important performance indicators of environmental management practices in the hotel industry, the survey questionnaire based on a literature review was designed to collect data. The goal of the survey was to identify and examine how the hotels officially apply important environmental management activities and measures in their business and reporting.

A set of independent and dependent variables were applied. The research variables were defined in relation to the projected elements of the study. The independent variables were the following: Location of the hotel, hotel category, hotel capacity (number of rooms) and hotel chain affiliation (independent or part of an international hotel chain). Dependent variables were created in 2 segments:

- (a) As a five-point summation scale, consisting of a set of multi-item variables: Indicators of the impacts of the most important environmental performance indicators in the hotel business operations (6-item indicators); and
- (b) As nominal item indicators, consisting of a total of seven questions (answered with "yes" or "no").

Hotels were asked to indicate the level of significance of each individual performance indicator by using the five-point Likert scale (i.e., extremely insignificant = '1'; insignificant = '2'; medium = '3'; significant = '4' and extremely significant = '5'). In the other part of questionnaire hotels were asked to answer the questions with yes or no.

At the beginning of the questionnaire, basic information on the hotel respondents was also collected, such as the name of the hotel, address, category of the hotel, number of rooms, hotel chain affiliation (independent or part of an international hotel chain), and so forth.

Empirical data were processed and analysed using the application programme SPSS V21.0 (IBM: Armonk, NY, USA), and all statistical conclusions were derived with a significance level of 0.05 ($p < 0.05$).

All multi-item research variables, which were arranged as ordinal scales, were determined by an assessment of their metric properties (internal agreement), based on the Cronbach's Alpha coefficient (Scale Reliability; Cronbach's Alpha).

One-factor analysis of variance (ANOVA) was used to test the significance of divergence between the scalar averages of different respondent answers (scores) performed by the various types of hotels. The procedure of determining the frequency distribution was applied for variables treated by the nominal level of estimation.

3.2. Characteristics of Respondents

A questionnaire survey was sent to the hotel General Managers in Serbia, in which 71 hotels participated and replied to the questionnaire survey. Serbia was chosen as a destination in transition waiting to join the European Union.

The results of the respondents' answers in the questionnaire indicated the following characteristics:

- According to the size of hotels (Table 2, Figure 3), small hotels were dominant, with 66.2% (up to 75 rooms), followed by medium-sized hotels with 28.2% (76–149 rooms), then large hotels with 4.2% (150–299) and very large hotels with 1.4% (300–500 rooms).

Table 2. Size of the Hotels.

Size of the Hotel	f	%
Small	47	66.2
Medium	20	28.2
Large	3	4.2
Very large	1	1.4
Total:	71	100

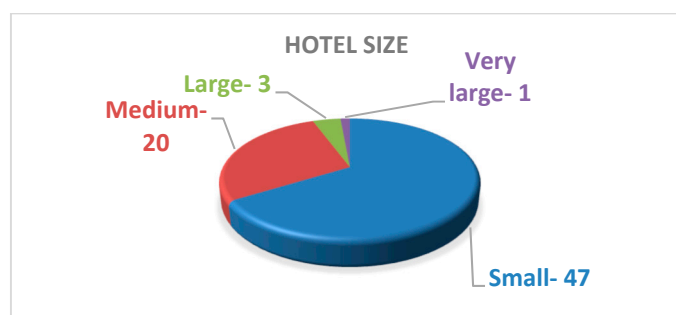


Figure 3. Size of the Hotels.

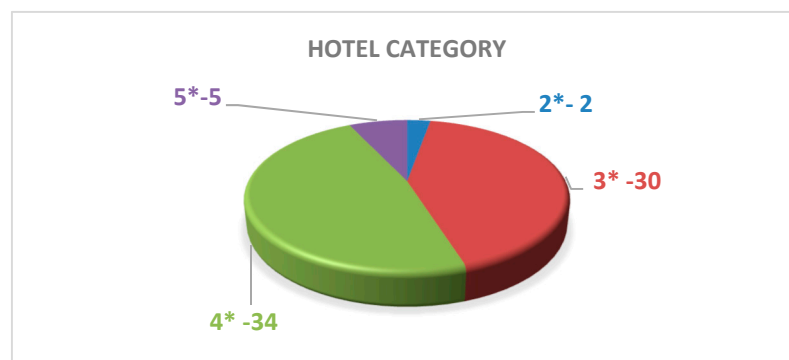
The size of the hotel as a numerical variable is expressed by the number of rooms and classified into four categories: (1) Small (up to 75 rooms; 66.2%), (2) Medium (76–149 rooms; 28.2%), (3) Large (150–299 rooms (4.2%) and (4) Very large (300–500 rooms; 1.4%). Analysing the different approaches of the authors in the classification of hotel size, and according to the specific characteristics of the hotel market in Serbia with the largest number of the small hotels, followed by medium-sized [56], the research applied the classification of hotel size according to the local author Dokovic [106] (p. 39): Small to 75 rooms, medium from 76 to 149, large from 150 to 299, very large from 300 to 499 and mega hotels more than 500 rooms, as the most suitable for this research.

- According to the hotel category, the largest number of hotels was with four stars (47.9%), followed by three stars (42.3%), then with five stars (7%) and with two stars (2.8%).

This distribution can be treated in accordance with the proportions of the total hotel potential in Serbia (Table 3, Figure 4). The largest number of hotels in Serbia has four and three stars [56].

Table 3. Hotel Category.

Hotel Category	f	%
Two stars	2	2.8
Three stars	30	42.3
Four stars	34	47.9
Five stars	5	7.0
Total:	71	100

**Figure 4.** Hotel Category. * stands for a hotel star (category of a hotel).

According to the location, hotels from Belgrade (the capital of Serbia) dominated with 38%, followed by other tourist locations with 32.4%, then Novi Sad with 9.9%, mountain resorts with 14.1% and thermal spa resorts with 5.6%.

The location of the hotel, as a numerical variable, includes the basic classification of the hotels by location into city, spa, mountain and other tourist locations, according to the specific characteristics of the hotel market in Serbia. The largest number of hotels in Serbia are located (Table 4, Figure 5), in Belgrade (city), then in Novi Sad (city), and a smaller number of hotels in other leading and popular tourist locations (centres) in Serbia [56]. Therefore, the classification of hotels by location is done by numbering from 1 to 5, as follows: 1—Belgrade, 2—Novi Sad, 3—Mountain resorts, 4—Thermal spa resorts, 5—Other tourist locations, which are also correlated with the number of hotel responses by their location.

Most hotels were independent (did not belong to any international hotel chain) with 84.5%, while the rest of the hotels were part of international hotel chains with 15.5% (Table 5, Figure 6).

These results correspond directly to the findings in the research study that most hotels in Serbia are not a part of International Hotel Chains [56].

It is important to note that the largest number of International Hotel Chains who replied to this questionnaire, was with four stars (seven hotels), then with five stars (three hotels) and one hotel (1 hotel) with three stars.

Table 4. Hotel Location.

City	f	%
Belgrade	27	38.0
Novi Sad	7	9.9
Mountain resorts	10	14.1
Thermal spa resorts	4	5.6
Other tourist locations	23	32.4
Total:	71	100

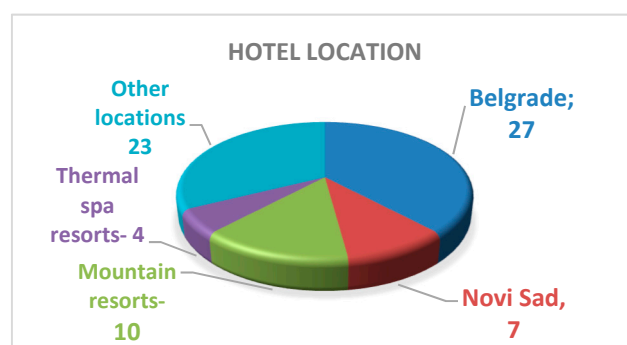


Figure 5. Hotel Location.

Table 5. Chain Affiliation (part of International Hotel Chain (IHC) or independent).

Chain Affiliation	f	%
Part of IHC	11	15.5
Independent	60	84.5
Total:	71	100

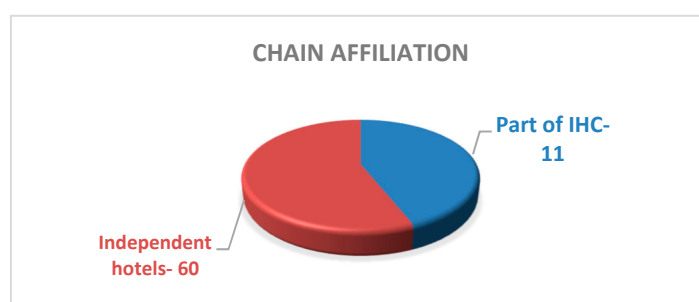


Figure 6. Chain Affiliation (part of the International Hotel Chain (IHC) or independent).

3.3. Data Analysis and Discussion

The reliability of the five-point scale used in the first part of survey was assessed by checking the internal consistency and compliance of the scale (Scale Reliability Analysis) based on the Cronbach's Alpha coefficient (Cronbach's Alpha). The recommended minimum theoretical value of 0.7 was taken as the basis for accepting the validity edge [107]. The value of this test was-Cr. Alpha = 0.934, which was greater than 0.7, indicating that the five-point scale measurement was very reliable (Table 6).

Table 6. Coefficients of the internal agreement of the scale.

Indicator	Cronbach's Alpha If Item Deleted
(1) Reduction of energy consumption	0.921
(2) Reduction of water consumption	0.921
(3) Reduction of hotel operating costs	0.914
(4) Higher hotel occupancy rate	0.919
(5) Hotel Competitiveness (higher reputation, presence on the market, consumer trust, better image, positive comments on the social networks)	0.923
(6) Other indicators (waste minimisation/ disposal, emissions etc.)	0.927
(7) Cronbach's Alpha	0.934

The results of the respondents' answers in assessing the significance of the impacts of major performance indicators of environmental management practice in hotels show correspondence, as the value of the total scalar average of this variable is 3.66, which indicates the intensity of moderate impact. Additionally, by marking the hierarchical impact

evaluation of each individual indicator, the results show that the highest significance impact was: (1) Higher hotel occupancy rate -3.82 , followed by (2) Reduction of energy consumption -3.75 , then (3) Hotel Competitiveness -3.74 , (4) Reduction of hotel operating costs -3.68 , (5) Reduction of water consumption -3.65 and (6) Other indicators -3.36 (waste minimisation/disposal, emissions etc.), (Table 7).

Table 7. Significance of the Impacts of major performance indicators of Environmental management practice in hotels (Hoteliers' Assessment).

Indicator	Sv
(1) Reduction of energy consumption	3.75
(2) eduction of water consumption	3.65
(3) Reduction of hotel operating costs	3.68
(4) Higher hotel occupancy rate	3.82
(5) Hotel Competitiveness (higher reputation, presence on the market, consumer trust, better image, positive comments on the social networks)	3.74
(6) Other indicators (waste minimisation/disposal, emissions etc.)	3.36
Total Sv:	3.66

Small fluctuations in response ratings indicated that all selected major environmental indicators assessed in the questionnaire were valid and almost equally significant for hotels. The results also suggest that the economic aspects of the business are primary for hotels and very important, as almost all of the evaluated indicators in the questionnaire are bringing benefits to the hotel business. To this, it should be added that the assessment of hoteliers that the highest significant impacts of performance indicators on environmental management practice in hotels can be reflected first by the higher occupancy rate, then by reducing energy consumption and, after that, by the higher hotel competitiveness. Hoteliers are becoming more aware of the importance of environmental business practices, and the benefits of this practice for the hotel's performance, including financial gains.

On the other hand, these results show that hoteliers in Serbia are familiar with world tourism trends and the growing demand of tourists for eco and environmentally friendly hotels, which can affect the higher hotel occupancy significantly.

When the size of the hotel is taken as a criterion, the results of the analysis of variance show that this classification does not represent a significant determinant in the assessment of the significance of the impact of the environmental performance indicators. No statistical significance of differences was recorded in any of the item indicators (Table 8).

The statistical significance of differences was also not recorded in any of the item indicators when the hotel category and hotel location were taken as a criteria.

However, when the affiliation of a hotel to an International Hotel Chain is considered a criterion, it is obvious that there are significant differences. Hotels belonging to an International Hotel Chain pay much more attention to assessing the significance of the impacts of certain environmental indicators, which is evidenced by the overall scalar value of 4.24. On the other hand, independent hotels (not part of an International Hotel Chain) evaluate these impacts on average-Sv = 3.56. This result can be considered the basis of the determined statistical significance (Sig. = 0.036), and that these differences are especially evident in the item indicators: Reduction of hotel operating costs and Other indicators (Table 9).

These findings of evident differences in the item indicators—reduction of hotel operating costs and other indicators (waste minimisation, waste disposal, emissions etc.)—indicate that the implementation of environmental management practice is higher in the hotels belonging to International Hotel Chains than in independent hotels. This indication is based on the evidence from many studies, including hotel environmental practice experiences (previously mentioned in the theoretical part of the paper) that the implementation of environmental management practice in hotels contributes to the significant reduction of hotel operating costs, particularly energy, then water consumption, waste minimisation

and disposal, and so forth. That means that any hotel will certainly achieve high scores, particularly at the reduction of hotel operating costs indicator and then other indicators (waste minimisation, waste disposal, emissions etc.) as very important performance indicators for the hotel business if a hotel applies many environmental management activities and measures in the hotel business operations.

Table 8. Significance of the impacts of major performance indicators of environmental management practice in hotels (in relation to the size of the hotel).

Indicator	Hotel Size	N	Sv	Std. Dev.	F	Sig.
Reduction of energy consumption	Small	47	3.62	1153	0.963	0.415
	Medium	20	3.90	1210		
	Large	3	4.33	0.577		
	Very large	1	5.00	.		
	Σ	71	3.75	1155		
Reduction of water consumption	Small	47	3.49	1214	1065	0.370
	Medium	20	3.90	1210		
	Large	3	4.00	1000		
	Very large	1	5.00	.		
	Σ	71	3.65	1208		
Reduction of hotel operating costs	Small	47	3.53	1158	1109	0.352
	Medium	20	3.90	1021		
	Large	3	4.00	0.000		
	Very large	1	5.00	.		
	Σ	71	3.68	1106		
Higher occupancy rate	Small	47	3.64	1150	1546	0.211
	Medium	20	4.15	0.875		
	Large	3	4.00	0.000		
	Very large	1	5.00	.		
	Σ	71	3.82	1073		
Hotel Competitiveness	Small	47	3.51	1249	2128	0.105
	Medium	20	4.15	0.933		
	Large	3	4.33	0.577		
	Very large	1	5.00	.		
	Σ	71	3.75	1180		
Other indicators (waste minimisation/ disposal, emissions etc.)	Small	47	3.11	1255	2120	0.106
	Medium	20	3.85	0.875		
	Large	3	3.67	1155		
	Very large	1	4.00	.		
	Σ	71	3.35	1184		
Total:	Small	47	3.48	1030	1845	0.147
	Medium	20	3.98	0.894		
	Large	3	4.06	0.419		
	Very large	1	4.83	.		
	Σ	71	3.66	0.997		

3.4. The Second Part of the Questionnaire

In order to identify and examine how the hotels officially apply important environmental management activities and measures in their business and reporting, in the other part of questionnaire the hotels were asked to answer the questions with yes or no. The questions were in relation to some other important parameters related primarily to formal environmental management activities and measures in hotel business operations.

The analysis of the respondents' answers revealed the following:

- (1) To the question "Does your hotel have a formal (official) policy statement on environmental programmes, measures and management practice," most of the answers (and thus the number of hotels) indicated that hotels do not have a formal Environmental Policy statement (53.5%) (Table 10).

Table 9. Significance of the Impacts of major performance indicators of Environmental management practice in hotels (in relation to the hotel chain affiliation).

Indicator	Chain Affiliation	N	Sv	Std. Dev.	F	Sig.
Reduction of energy consumption	Independent	60	3.67	1188	1871	0.176
	Part of IHC	11	4.18	0.874		
	Σ	71	3.75	1155		
Reduction of water consumption	Independent	60	3.55	1241	2600	0.111
	Part of IHC	11	4.18	0.874		
	Σ	71	3.65	1208		
Reduction of hotel operating costs	Independent	60	3.55	1096	5348	0.024
	Part of IHC	11	4.36	0.924		
	Σ	71	3.68	1106		
Higher occupancy rate	Independent	60	3.72	1075	3499	0.066
	Part of IHC	11	4.36	0.924		
	Σ	71	3.82	1073		
Hotel Competitiveness	Independent	60	3.65	1176	2651	0.108
	Part of IHC	11	4.27	1104		
	Σ	71	3.75	1180		
Other indicators (waste minimisation/ disposal, emissions etc.)	Independent	60	3.22	1166	5382	0.023
	Part of IHC	11	4.09	1044		
	Σ	71	3.35	1184		
Total:	Independent	60	3.56	0.987	4598	0.036
	Part of IHC	11	4.24	0.883		
	Σ	71	3.66	0.997		

Table 10. Establishment of a Formal Environmental Policy Statement in hotels.

Formal Environmental Policy Statement	f	%
Have	33	46.8
Have not	38	53.5
Total:	71	100

- (2) Regarding the question “is environmental protection part of the strategy development of your hotel” the distribution of answers indicates that most hotels do not have Environmental Protection as a part of hotel strategy development (80.3%), (Table 11).

Table 11. Environmental Protection as part of the hotel strategy development.

Environmental Protection as Part of the Hotel Strategy Development	f	%
Exists	14	19.7
Does not exist	57	80.3
Total:	71	100

- (3) In the context of the previous question “is the environmental strategy represented in the formal (official) documents of your hotel”, the distribution of answers was identical with the previous question, that is, in 80.3% of hotels this business segment is not defined and represented in formal documents (Table 12).

Table 12. Environmental strategy represented in the formal hotel documents.

Formal Environmental Strategy	f	%
Exists	14	19.7
Does not exist	57	80.3
Total:	71	100

- (4) Answers to the question “does your hotel/company prepare a regular public annual/periodic report on all environmental management activities implemented in hotel operations” showed that most hotels (74.6%) do not prepare regular environmental public reports (Table 13).

Table 13. Hotel Environmental Reporting.

Hotel Environmental Reporting	f	%
No report	53	74.6
Report	18	25.4
Total:	71	100

- (5) When asked “does your hotel calculate environmental costs” it is noted that most hotels (64.8%) do not calculate environmental costs (Table 14).

Table 14. Calculation of hotel environmental costs.

Calculation of Hotel Environmental Costs	f	%
Not calculated	46	64.8
Calculated	25	35.2
Total:	71	100

- (6) Regarding the question “has your hotel implemented some of the International Environmental Standards (EMS/EMAS, ISO 14001)”, the distributions of answers indicate a negative trend in the implementation of International Environmental Standards in the hotel business, that is, 71.8% of hotels have not implemented any of the International Environmental Standards (Table 15).

Table 15. The existence of International Environmental Standards (EMS/EMAS, ISO 14001).

The Existence of International Environmental Standards	f	%
Exists	51	71.8
Does not exist	20	28.2
Total:	71	100

(6a) The hotels with positive answers were asked to name the implemented International Standards. All hotels with positive answers named only the HACCP Standard.

- (7) To the question “is there an employee in your hotel who is directly in charge and responsible for (managing) the environmental activities and measures of your hotel”, the largest number of answers was that the hotel does not have employees who would deal directly with the hotel environmental activities and measures (66.2%), (Table 16).

Table 16. Employee directly in charge of hotel environmental activities.

Employee Directly in Charge of Hotel Environmental Activities	f	%
Have	24	33.8
Have not	47	66.2
Total:	71	100

Further analysis shows that when we subtract the percentage of participation of International Hotel Chains from the total positive answers of respondents (15.5%), participation of independent (do not belong to hotel chains) hotels, in positive answers, were as follows:

- 31% of independent hotels have established a formal Environmental Policy Statement;

- 4.2% have the Environmental Protection as a part of the hotel strategy development;
- 4.2% have the Environmental Strategy represented in the hotel formal documents;
- 9.9% prepare regular public annual/periodic reports on environmental activities;
- 19.7% calculate hotel environmental costs;
- 12.7% have implemented some of the International Environmental Standards, and
- 18.3% have an employee directly in charge of hotel environmental activities.

3.5. Analysis and Discussion of the Second Part of the Questionnaire

The issues raised by the results of these answers are several. Firstly, to point out that the implementation of International Environmental Standards is certainly proof of the implementation of environmental practice in hotels, as well as a guarantee of quality services and products, as pointed out in the theoretical part of the study. Secondly, every company, including hotels, should have an official Policy Statement with concrete actions, that is, activities, measures if it really applies environmental management practice.

The lack of a formal Environmental Policy Statement, a formal Environmental Strategy, any Environmental Standards, any employee directly in charge of hotel environmental management activities and measures, failure to calculate environmental costs, and, most important, non-compliance and the absence of regular public annual/periodic environmental reports, indicates very low and poor implementation of environmental business practice in hotels, or non-existence.

This research established the existence of a significant distinction in terms of belonging to the hotel chain, which indicates that the implementation of environmental business practice in independent hotels in Serbia is very low, which confirms the extremely low ratings of all parameters in the other part of the survey (4.2% have the formal Environmental Strategy; 12.7% have some of the International Environmental Standards; 31% have a formal Environmental Policy Statement etc.), as well as the evident differences, especially in the item performance indicators: Reduction of hotel operating costs and other indicators (waste minimisation, waste disposal, emissions etc.) in the first part of the survey.

In other words, all the analysed results showed and signified that International Hotel Chains in Serbia are more committed in the implementation of environmental management practice than independent hotels. It should be highlighted that these results are in direct correlation with the findings of research studies by numerous authors, presented in the theoretical part of the paper, who especially pointed out and stated that International Hotel Chains are more committed to applying environmentally sustainable management practices in their business than other independent hotels, as well as such businesses contributing to a significant reduction in hotel operating costs and the achievement of better performance and benefits at all levels.

The study has determined the validity of the selected most important and major performance indicators of environmental management practice in the hotel industry based on the literature review. All selected major environmental indicators assessed in the questionnaire are almost equally significant for hotels, which are estimated by small fluctuations in the response ratings. The obvious determined statistical significance of differences was only recorded in the item Performance Indicators when the affiliation of a hotel to an International Hotel Chain was considered a criterion (variable). Hotels that were part of an International Hotel Chain were assessed with evident differences, especially the item Performance Indicators: the reduction of hotel operating costs and other indicators (waste minimisation, waste disposal, emissions etc.) (Sig. = 0.036).

It has to be added that most hotels in Serbia (independent hotels) that replied to the questionnaire survey do not provide and prepare public environmental reports (74.6%). Hotels that are part of International Hotel Chains prepare and conduct regular public annual/periodic environmental reports with 15.5%, and independent hotels with only 9.9%.

The reasons and causes for all of these findings can be varied, such as a lack of environmental awareness, finances, incentives, and many others. It is obvious that future research must take this subject into consideration for further analysis.

It is important to note that the results of the research signify that parameters such as establishing a formal Environmental Policy Statement, strategy, public reporting can be important indicators of the level of implementation of this business, as well as in determining whether the hotel applies this business at all, or only uses it for marketing purposes. The results also indicate that the indicators should be an important subject of further research and have to be developed further, determined and adjusted according to the size of the hotel, so that smaller independent hotels can receive support to apply more environmental activities and measures in their business operations, as well as to be more involved in the public reporting and benchmarking.

4. Implications Based on the Literature Review and Case Study

Based on literature review and on the survey, it can be argued that the implementation of environmental sustainable business contributes to the realisation of many benefits that bring the creation of additional value, that is, better business performance of hotels, practicality, cost savings and increase the safety and health of hotel users. This further contributes to the creation of positive business performance and greater satisfaction of hotel visitors and points to an important and positive link between environmental sustainability, financial performance, guest satisfaction and resource efficiency [108].

Further on, it should be emphasised that tourists today pay more attention to environmental activities, and choose hotels that implement environmentally sustainable business, which is a general growing trend in the world [1,47,64,109–112]. On the other hand, the application of environmentally sustainable business brings financial benefits to all hotels, such as reduction of operational costs, especially energy costs, due to the amount of costs, their efficient monitoring, more efficient operative business, and so forth [1,9,48,52].

The very application of environmentally sustainable business means that hotels belong to a group of hotels that spend resources rationally and treat the environment responsibly, which has a positive impact on all company performance. For the hotel business, as a means to promote sustainable hotel development, analysis and evaluation of environmental performance have a significant role in achieving the goals of managing an environmentally sustainable business, and, thus, the entire hotel, which contributes to achieving positive business results. In the choice of environmental sustainability indicators, hotels must take into account basic and specific criteria and indicators, according to the characteristics and specifics of their business and the environment in which they operate. It can be said that environmental sustainability indicators have a role in defining the effectiveness of implementing environmental sustainability in practice, which further helps hotels to improve their business and performance in future business.

As green, sustainable and responsible businesses have become mainstream, it is necessary to emphasise the importance of public reporting on the effects of this business, which is a significant means of competitiveness and differentiation of supply in the increasingly demanding global market, and greater success in the hotel business. The need for Environmental Reports has also arisen due to the increasing and growing implementation of activities and measures in the field of Environmental Protection and preservation at the global level. It can be said that the reports on environmentally sustainable business confirm the fulfilment of environmental activities and Standards, which the hotels have set and applied in business, which helps hotels additionally in developing marketing activities that are reflected primarily through the promotion of environmental business and social responsibility.

Given the constant changes in the market, an increasing number of hotel companies produce good results from the environmental business; however, a large number of small and medium-sized individual hotels still do not have evidence of the application of this business and public reports.

It is necessary to add here that regular recording and performance analysis of the application of environmentally sustainable business and public reporting shows that hotels really implement environmentally sustainable business, that is, it is proof of the imple-

mentation of such business, and indicates how environmental business is an important segment for the hotel business. In support of these claims, it should be added that each hotel is a company that must keep records and calculations of all costs, including those for environmental business. If this does not exist, it means that environmental business is not applied, or is at a very low level, so it is not necessary to calculate costs. It should be emphasised that some hotels are focused solely on economic gain, and promote environmental sustainable business on their websites as a marketing ploy only to attract guests, although in reality they apply very few environmental activities compared to their claims on the sites [113].

In other words, Public Environmental Reports are evidence of the application of environmentally sustainable business, standards and contributions of hotels in the field of Environmental Protection, which helps to distinguish the right application of sustainable business and eco standards in one company by other companies, where this application is based on claims. On the other hand, these reports also guarantee consumers that that hotel really implements environmentally sustainable business, and, thus, helps hotels to achieve better hotel occupancy, because more and more guests choose and stay in environmentally responsible hotels.

Hotels that have eco-certificates must also produce their own reports. However, there is a large number of Eco-certificates and labels in the world (over 100) without insight into the specific effects of hotels, types of criteria, indicators and assessment methods for obtaining these labels, which creates a confusing area not only for consumers, but for professionals too [113]. The leading and recognised global eco-labels, which are listed in the paper, have the greatest trust, because they have clear unified aspects of certification standards and high requirements (indicators and criteria) for obtaining them, as well as reporting [101,113].

All of the above indicates that, in the future, more attention must be paid to this area in creating clear uniform criteria and indicators at the global level, especially for hotel reporting. All relevant international institutions, countries, Non-Governmental Organisations, the professional public and other stakeholders must be involved in their creation and specifying criteria, policies, techniques and matrix. It should be emphasised that this is especially important for medium and smaller independent hotels, which have fewer resources and whose negative impact on the environment is smaller compared to large individual hotels and hotel chains [49,52]. For these hotels, it would therefore be necessary to build a global reporting evaluation system that will classify the minimum criteria and indicators that the hotel must meet by hotel category, hotel size and the area in which it operates. For example, an evaluation system could classify independent smaller and medium-sized hotels by hotel category from 1 to 5 stars, where each category would differentiate degrees by hotel size (first level up to 25 rooms, second from 25 to 50, third from 50 to 75, etc.), as well as the place of business (coastal, city, mountain, etc.). In that way, it could be a stimulant to help these hotels to participate more in reporting and applying this business in practice, and, on the other hand, to avoid marketing propaganda of environmental business without evidence.

5. Conclusions

In conclusion, it can be stated that environmental indicators are very important for many reasons. From a managerial point of view, the indicators may be employed and interpreted as guidelines for implementing sustainability oriented processes. The implementation of environmentally sustainable business in Serbia (also by encouraging more intensive cooperation between professionals in the hotel industry and tourism researchers) and elsewhere has a positive impact on hotel performance. In other words, environmentally sustainable hotel business contributes to more efficient operational business of the hotel and offers the possibility of achieving numerous benefits, which has a positive impact on all hotel performance. By implementing the concept of environmentally sustainable development in the hotel business, in addition to Environmental Protection, they achieve better

financial performance. The most important advantages of environmentally sustainable hotel business are based on: reducing negative impacts and preserving the environment, reducing operational costs and cost control efficiency (especially energetic), increasing energy efficiency, greater customer satisfaction, greater brand reputation and creating a better image and competitiveness. This business also has a positive effect on creating greater loyalty of guests and employees, helps to achieve marketing benefits and promotion, which further affects the use of hotel capacity positively, that is, better sales and, thus, the achievement of better economic and financial performance. On the other hand, public reporting on the effects of this business is also an extremely important aspect, which helps hotels to present to the public and prove their efforts and contribution to environmental protection, which further contributes to a better image and positioning in a demanding global market and, thus, a more successful business. Increasing environmental pollution imposes the need for all hotels to implement environmentally sustainable business, manage environmental performance and publish public reports, thus contributing to the protection of the environment. By employing sustainable practices, they achieve numerous benefits that contribute to improvement and a more successful business, preserving the local economy and encouraging greater sustainability awareness among guests and staff.

Further on, the findings of this study identify new opportunities for saving resources in Serbia and in other destinations. Environmental Performance Management allows all hotels to gain insight into the efficiency of all the activities and measures they implement in their hotels to minimise their negative impact on the environment, from reducing energy use and emissions, water consumption and waste reduction to hotel cost management and then the application of additional, even more efficient, activities in order to achieve the best possible results and performance of the hotel. The limitation of the research is that the survey was conducted only in hotels in Serbia, but this was the first study of its kind in this territory. The study and the findings are significant for further research, not only in hotels, but also in other accommodation facilities and restaurants.

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